



Veer Narmad South Gujarat University, Surat

Major Project Report
on
“NCSC College App”

Submitted in partial fulfillment of the requirement for the degree
Bachelor of Computer Applications (BCA)
Semester-VI, Academic Year 2024-2025

NCSC
विज्ञानं यज्ञं तनुते
-:Submitted To:-
Narmada College of Science & Commerce Zadeshwar
Bharuch-392011

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**NARMADA COLLEGE OF SCIENCE AND
COMMERCE ZADESHWAR BHARUCH (GUJARAT)
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(Affiliated to Veer Narmad South Gujarat University, Surat)

No.NCSC/

Certificate

This is certified that **Mr. Mansuri Uvesh Salim (Exam No.288)**, **Ms. Agarwal Bittu Sunil (Exam No.268)** and **Mr. Mahant Nilay Piyushbhai (Exam No.319)** students of T.Y.B.C.A. (6th Semester), Narmada College of Science and Commerce, Bharuch have completed their major project report on **NCSC College App** in partial fulfillment of the degree of B.C.A. from Veer Narmad South Gujarat University for the academic year 2024-25.

They carried out the project under the guidance of **Mr. Ramnik L. Gilatar**. The said report is based on Bonafide work of them.

Mr. Ramnik L. Gilatar

Internal Guide

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PREFACE

The NCSC College App is a cutting-edge, cross-platform solution tailored to enhance administrative, academic, and student-related processes within a college ecosystem. Built using Flutter with Dart for a seamless frontend experience, Firebase Realtime Database for efficient and scalable data management, and a Python-based API for advanced face recognition, this app provides an innovative and integrated approach to college management. By centralizing critical functions, it minimizes manual intervention, reduces paperwork, and improves overall efficiency.

At the core of the application is its ability to streamline operations such as department management, faculty administration, student record maintenance, subject allocation, circular distribution, library and laboratory management, and college document issuance (e.g., Bonafide certificates). The app also facilitates internal assessments, assignments, tests, and attendance tracking using its face recognition system, ensuring secure, accurate, and automated attendance logging. This feature enhances security while eliminating traditional, error-prone attendance methods.

The NCSC College App is designed with a role-based access system, allowing administrators, faculty members, librarians, lab assistants, clerks, and students to interact with the platform according to their specific needs. This structured access control ensures that users only have access to relevant features, streamlining workflows and preventing information overload. Additionally, the app's automated notifications and announcements improve communication across users, ensuring that important updates reach the right users in real time.

With its comprehensive functionality, intuitive design, and automation-driven approach, the NCSC College App is set to revolutionize college management by bridging the gap between administration, faculty, and students. By embracing modern technologies, the app not only enhances institutional efficiency but also creates a more organized and responsive academic ecosystem.

ACKNOWLEDGMENT

During our project journey, we have been fortunate to receive invaluable support and guidance from many individuals, and we would like to express our heartfelt gratitude to them. Their encouragement and assistance have played a crucial role in the successful completion of our work.

We extend our sincere thanks to Mr. Ramnik Gilatar for his guidance in selecting our project topic. It is an honour to present our preliminary report on “NCSC College App.” His continuous support throughout the project's development has been instrumental. He not only helped us shape the concept of our project but also provided the necessary resources and assistance to achieve our objectives during this major project.

Lastly, we are deeply grateful to our family and friends for their unwavering motivation and encouragement, which served as a source of inspiration throughout the project.

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INTRODUCTION

In today's digital era, educational institutions require efficient management solutions to handle their administrative and academic activities. A **NCSC College App** is a comprehensive application designed to streamline various processes within a college, including students management, attendance tracking, class tests and marks management, staff management, and more. This system enhances productivity, reduces manual workload, and ensures seamless communication between students, staff, and administrators.

Application of NCSC College App

The **NCSC College App** is widely used in educational institutions to simplify complex administrative tasks. Some key applications include:

- **Student Management:** Maintaining student records, personal details, academic progress, and attendance.
- **Faculty Management:** Managing faculty details, schedules, subject assigning and managing.
- **Face-Recognition:** Automated face-recognition based Attendance.
- **Test & Result Management:** Conducting online tests and generating results efficiently also manage marks of Internal Examinations.
- **Library Management:** Keeping track of books issued, returned, and availability status.
- **Timetable Scheduling:** Creating and managing class schedules with minimal conflicts by AI.
- **Communication & Notifications:** Sending updates, circulars, and announcements to students and faculty.

By implementing a **NCSC College App**, institutions can improve efficiency, enhance collaboration, and provide a better experience for students and staff alike.

1.1 ABOUT THE APPICATION

“NCSC - COLLEGE APP”

- **ADMIN DASHBOARD / DBA (DATABASE ADMINISTRATOR):**
 - Department add, update, delete
 - Students add, update, delete
 - Subjects add, update, delete
 - Staff add, update, delete
 - Faculty assign
 - Circulars create
 - Semester change

- **STAFF:**
 - **TEACHING:**
 - Attendance (face recognition)
 - Circulars receive
 - Callender
 - Timetable (auto generated using ai by HOD)
 - Create assignment (image, pdf)
 - Upload internal marks
 - Test for students (auto generated at student side)
 - Queries receive (dept. Query from the students to HOD)

 - **Non-TEACHING:**
 - Circular view
 - Callender
 - Query (comp. Lab Assi. Receive from lab students, science lab assistance received from science lab students, clerk receives for bus pass, train pass, Bonafide)
 - Students add (details, uploads photos)
 - Librarian dashboards add book, update copies, assign, collect and due & fine notifications

- **STUDENT:**

- Test Form Faculty (Auto Generate by Ai)
- View Assignment
- Info Desk – Chatbot (Providing Details A Bout Collage & Info of University)
- Sent Query
- Request Document, Passes to Clerk
- View Internal Marks
- View Calendar, Create Event
- View Timetable
- Fee Portal (College Official Website)
- About Collage Page
- About University
- View Circular
- View Departments of Collage

1.2 OBJECTIVE

Objective:-

The primary objective of the **NCSC College App** is to digitalize and automate the administrative and academic processes within a college, reducing manual efforts and improving efficiency. The system aims to:

- **Streamline Student Management:** Maintain accurate records of student enrollment, attendance, academic performance, and personal details.
- **Enhance Faculty Management:** Organize faculty details, workload distribution, and scheduling.
- **Face Recognition Attendance:** Faculties can take attendance by face recognition for their classes and also get proper reports of attendance in graphs by days and can download excel sheet of attendance report.
- **Improve Examination & Result Processing:** Conduct class Test, evaluate results, and generate report results efficiently.
- **Optimize Timetable and Class Scheduling by AI:** Create and manage conflict-free class schedules for students and faculty.
- **Ensure Better Communication:** Provide a platform for notifications, circulars, and announcements.
- **Enhance Security and Data Integrity:** Implement role-based access control to secure sensitive information.

1.3 Scope

The **NCSC College App** has a wide scope in improving the operational efficiency of educational institutions. Its implementation benefits various stakeholders, including students, faculty, and administrative staff. The key areas covered by this system include:

- **Student Module:** Registration, profile management, attendance tracking, and performance evaluation.
- **Faculty Module:** Managing teaching schedules, workload distribution, and leave management.
- **Face-Recognition:** Automated face-recognition based Attendance.
- **Examination & Results Module:** Conducting class Tests, result generation, and performance analysis.
- **Library Management Module:** Maintaining book records, issuing books, and tracking due dates and send notifications on due or for fine.
- **Communication Module:** Sending notifications, updates, and circulars to students and faculty.
- **Reports & Analytics:** Generating reports related to student performance, attendance, and administrative operations.

By implementing this system, colleges can reduce paperwork, increase transparency, and improve overall efficiency in managing academic and administrative tasks.

1.4 PURPOSE

The purpose of developing a **NCSC College App** is to address the diverse needs of educational institutions and stakeholders by providing a comprehensive platform for managing various administrative, academic, and communication processes.

Improving student services by offering online access to academic resources, course materials, library services, extracurricular activities, and student support services to enhance the overall student experience.

1.5 PROJECT PROFILE

Project Profile:	NCSC College App
Platform:	Windows 11
Front-End:	Flutter (for cross-platform mobile application development) Dart (programming language for Flutter)
Back-End:	Firestore: (for real-time database, authentication, and cloud storage) Python (Fast API): (for creating the face recognition API) Libraries for Python: OpenCV, face recognition, NumPy, etc.
IDE	Android Studio
API	Gemini API (for AI-powered features)
Internal Guide:	Mr. Ramnik L. Gilatar
Submitted To:	Narmada College of Science & Commerce, Veer Narmad South Gujarat University.
Submitted By:	Mansuri Uvesh Salim

2. ENVIRONMENT SPECIFICATION

2.1 Minimum System Requirement:

- **Processor:** AMD Rayzen3 / Intel i3
- **Device:** Laptop, PC
- **RAM:** 8GB
- **Monitor**
- **Mouse**
- **Keyboard:**104(Keys)
- **Hard disk:** 128GB to 500 GB

2.2 Software Specification:

- **Android Studio 2023**
- **Windows 11**
- **Firebase**

2.3 Software Tools:

- **Platform:** Windows 11
- **Front-End:**
 - Flutter (for cross-platform mobile application development)
 - Dart (programming language for Flutter)
- **Back-End used:**
 - Firebase: (for real-time database, authentication, and cloud storage)
 - Python (Fast API): (for creating the face recognition API)
 - Libraries for Python: OpenCV, face recognition, NumPy, etc.
- **IDE:** Android studio
- **API:** Gemini API (for AI-powered features)

3. FEATURES OF THE TOOLS USED

3.1 About Back-End Tool:

3.1.1 Firebase:-

Firebase is a product of Google which helps developers to build, manage, and grow their apps easily. It helps developers to build their apps faster and in a more secure way. No programming is required on the firebase side which makes it easy to use its features more efficiently. It provides services to android, ios, web, and unity. It provides cloud storage. It uses NoSQL for the database for the storage of data.

Firebase initially was an online chat service provider to various websites through API and ran with the name **Envolve**. It got popular as developers used it to exchange application data like a game state in real time across their users more than the chats. This resulted in the separation of the Envolve architecture and its chat system. The Envolve architecture was further evolved by its founders James Tamplin and Andrew Lee, to what modern day Firebase is in the year 2012.

Firebase offers two cloud-based, client-accessible document databases. We recommend new customers start with Cloud Fire store:

- **Cloud Fire store** is the *recommended* enterprise-grade JSON-compatible document database, trusted by more than 250,000 developers. It's suitable for applications with rich data models requiring query ability, scalability, and high availability. It also offers low latency client synchronization and offline data access.
- **Realtime Database** is the classic Firebase JSON database. It's suitable for applications with simple data models requiring simple lookups and low-latency synchronization with limited scalability.

Pros and Cons of Using Firebase:

Below listed are the advantages and disadvantages of using a Firebase backend:

Pros:

- Free plans for beginners.
- Real-time database is available.
- Growing Community.
- Numerous services are available.

Cons:

- It uses NoSQL so, people migrating from SQL might feel difficulty.
- It is still growing so, it is not tested to an extent.

3.1.2 Python:-

Purpose:

The Python API serves as the backend processing unit for the face recognition functionality of the attendance of NCSC College application.

It receives image data from the Flutter Mobile app or Web app, processes it using face recognition algorithm, and returns the attendance status.

This API is crucial for separating the computationally intensive face recognition tasks from the flutter app, ensuring **Cross Platform Applications** and Smooth user experience.

Implementation Details:

- **Framework Selection:**
 - **Fast API:** We chose either Fast API as the web framework for building the API.
 - A modern, high-performance web framework for building APIs with Python 3.7+ based on standard Python type hints. It is very fast, and makes documentation easy.
- **API Endpoints:**
 - **/encode (POST):**
 - Purpose: Receives an image file, detects faces, and returns facial encodings.
 - Input: file (UploadFile): The image file.

- Output: JSON response containing the facial encodings or an error message if no faces are detected.
- **/get_encodings (POST):**
 - Purpose: Receives facial encoding data along with student ID and name, and stores it in the application's state.
 - Input: JSON payload with stud_id, name, and encoding (list of floats).
 - Output: JSON response indicating success or an error if required data is missing.
- **/ws (WebSocket):**
 - Purpose: Real-time frame processing via WebSocket. Receives image frames, detects and recognizes faces, annotates the frames, and sends them back to the client.
 - Input: Image frame bytes.
 - Output: Annotated image frame bytes.
 - Functionality:
 - Uses the process_frame function to detect and recognize faces in the incoming frame.
 - Annotates the frame with bounding boxes and names.
 - Sends the annotated frame back to the client.
 - Keeps track of students that have been detected during the session.
- **/report (GET):**
 - Purpose: Generates and returns an attendance report with lists of present and absent students.
 - Output: JSON response containing lists of present and absent student IDs.
 - Functionality:
 - Retrieves the list of present students from the application's state.
 - Compares it with the list of all known students to generate the absent list.
 - Clears the present students and known faces list from the state, so that the next class period can use the api.

- **Python Libraries:**
 - **OpenCV (cv2):**
 - **Purpose:** OpenCV is a powerful library for computer vision tasks.
 - **Usage:**
 - Image loading and preprocessing (resizing, color conversion, etc.).
 - Face detection using Haar cascades or deep learning-based detectors.
 - Image manipulation.
 - **face_recognition:**
 - **Purpose:** This library provides a simple and accurate face recognition API built on top of dlib's state-of-the-art face recognition technology.
 - **Usage:**
 - Extracting facial encodings (128-dimensional vectors representing facial features).
 - Comparing facial encodings to determine if faces match.
 - Locating face locations within images.
 - **NumPy:**
 - **Purpose:** NumPy is a fundamental library for numerical computing in Python.
 - **Usage:**
 - Efficiently handling and manipulating arrays of numerical data, especially facial encodings.
 - Array operations.
 - **tkinter:**
 - **Purpose:** The Python Imaging Library adds image processing capabilities to your Python interpreter.
 - **Usage:**
 - Image format conversion.
 - Image manipulation.
 - **Fast API:**
 - **Purpose:** Web framework for creating the API.

- **Usage:**
 - Handling HTTP requests and responses.
 - Routing API endpoints.
 - JSON serialization and deserialization.

3.2 About Front-End FLUTTER:

Flutter is an open-source UI software development kit (SDK) created by Google, which allows developers to build natively compiled applications for mobile, web, and desktop from a single codebase. Here's a comprehensive overview of Flutter:

Overview:

Developer: Google

Initial Release: May 2017

Current Version: Flutter 3.19

Programming Language: Dart

Flutter SDK (Software Development Kit)

Flutter SDK (Software Development Kit) is a comprehensive set of tools and libraries provided by Google for developing cross-platform applications using the Flutter framework.

3.3 IDE (Integrated Development Environment) –Android studio 2023

Android Studio is the official integrated development environment (IDE) for Android app development, provided by Google. It offers a comprehensive suite of tools for building, testing, and deploying Android applications. Here's a brief overview:

- 1.User Interface:** Android Studio provides a user-friendly interface with various panels for coding, designing layouts, and managing project files.
- 2.Code Editor:** It features a powerful code editor with features like code completion, syntax highlighting, and code refactoring to aid developers in writing clean and efficient code.
- 3.Layout Editor:** Android Studio includes a layout editor that allows developers to visually design the user interface of their apps using drag-and-drop functionality.
- 4.Gradle Build System:** Android Studio uses the Gradle build system to automate the process of building, testing, and deploying Android apps. Gradle simplifies dependency management and allows for customization of the build process.
- 5.Emulator:** Android Studio provides an emulator that allows developers to test their apps on virtual devices with different screen sizes, resolutions, and Android versions.
- 6.Debugging Tools:** Android Studio offers powerful debugging tools to help developers identify and fix issues in their apps. This includes breakpoints, variable inspection, and real-time code changes during debugging.
- 7.Version Control Integration:** It seamlessly integrates with version control systems like Git, allowing developers to manage their source code repositories directly within the IDE.
- 8.Performance Profiling:** Android Studio includes tools for performance profiling, allowing developers to analyze the performance of their apps and optimize them for better efficiency and responsiveness.
- 9.Support for Kotlin:** Android Studio has excellent support for Kotlin, a modern programming language that is fully interoperable with Java and is officially supported for Android development.

Overall, Android Studio provides a robust environment for Android app development, empowering developers to create high-quality apps for the diverse ecosystem of Android devices.

3.4 SDLC (Software Development Life Cycle):

Software Development Life Cycle (SDLC) is a process used by the software industry to design, develop and test high quality software . The SDLC aims to produce a high-quality software that meets or exceeds customer expectations, reaches completion within times and cost estimates.

- SDLC is the acronym of Software Development Life Cycle.
- It is also called as Software Development Process.
- SDLC is a framework defining tasks performed at each step in the software development process.

What is SDLC?

SDLC is a process followed for a software project, within a software organization. It consists of a detailed plan describing how to develop, maintain, replace and alter or enhance specific software. The life cycle defines a methodology for improving the quality of software and the overall development process.

The following are the different stages of Software Development Life Cycle:

1. **Planning:** In this stage, the project goals, objectives, and requirements are defined. The feasibility of the project is evaluated, and a plan is developed for the entire project.
2. **Requirements Analysis:** In this stage, the requirements for the software are gathered from the stakeholders. The requirements are analyzed, and a requirements specification document is created.
3. **Design:** In this stage, the software design is developed based on the requirements specification document. The design includes the architecture, data flow, user interface, and other important details.
4. **Implementation:** In this stage, the software is developed based on the design specifications. The code is written, tested, and debugged.
5. **Testing:** In this stage, the software is tested to ensure that it meets the requirements and is free from defects. This stage includes unit testing, integration testing, system testing, and acceptance testing.

6. **Deployment:** In this stage, the software is released to the users. This involves installation, configuration, and setup of the software in the production environment.
7. **Maintenance:** In this stage, the software is maintained and updated to fix bugs, improve performance, and add new features.

Importance of SDLC:

The Software Development Life Cycle (SDLC) is important for several reasons:

- **Helps to produce high-quality software:** The SDLC provides a structured approach to software development, which helps to ensure that the software meets the requirements of the stakeholders, is reliable, efficient, and of high quality.
- **Reduces development time and cost:** The SDLC helps to identify and address issues early in the development process, which reduces the time and cost associated with fixing them later.
- **Facilitates communication and collaboration:** The SDLC involves various stakeholders, including developers, testers, project managers, and customers. The structured approach of the SDLC facilitates communication and collaboration between these stakeholders, ensuring that everyone is on the same page and working towards the same goals.
- **Ensures compliance with industry standards and regulations:** The SDLC ensures that the software is developed in compliance with industry standards and regulations, which helps to ensure that the software is secure, reliable, and meets the needs of the stakeholders.
- **Facilitates maintenance and updates:** The SDLC includes a maintenance stage, which helps to ensure that the software is maintained and updated to fix bugs, improve performance, and add new features over time.

SDLC Models:

There are various software development life cycle models defined and designed which are followed during the software development process. These models are also referred as "Software Development Process Models". Each process model follows a Series of steps unique to its type to ensure success in the process of software development.

Following are the most important and popular SDLC models followed in the industry –

- Waterfall Model
- Iterative Model
- Spiral Model
- V-Model
- Big Bang Model

Other related methodologies are Agile Model, RAD Model, Rapid Application Development and Prototyping Models.

Selection of SDLC Model:

Choosing the right software development life cycle (SDLC) model for a project depends on various factors, such as project requirements, budget, timeline, team size, and complexity. Here are some steps to help you decide which SDLC model to use for your project:

- **Analyze the project requirements:** Understanding the project requirements is essential in determining the most suitable SDLC model. Projects with clear, well-defined requirements can benefit from a linear, sequential approach like the Waterfall model, whereas projects with uncertain or changing requirements may require a more flexible, iterative approach like the Agile model.
- **Evaluate the project scope:** The scope of the project, including the size, complexity, and timeline, should also be considered. Larger projects with complex requirements may require a more structured approach, while smaller projects with less complex requirements may be better suited for a more flexible approach.
- **Consider the team's expertise:** The team's experience and expertise in specific SDLC models should also be considered. The team's familiarity with a particular model can make it easier to implement and result in a more successful outcome.

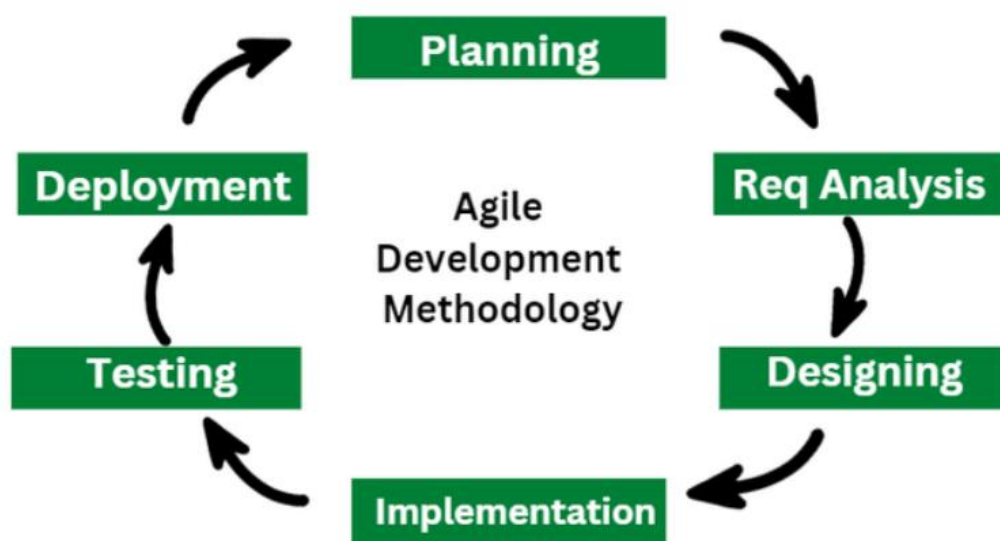
- **Evaluate project constraints:** The project constraints, including budget and timeline, should be taken into account. Some SDLC models require more time and resources, which may not be feasible for all projects.
- **Evaluate the project's risks:** The potential risks and challenges of the project should also be considered. Some SDLC models may be better suited to mitigate certain risks and challenges than others.

Once you have evaluated the above factors, you can choose an SDLC model that best fits your project's requirements, constraints, and risks. It's important to remember that the chosen SDLC model can be adapted and modified during the project lifecycle to ensure that it meets the project's evolving needs.

3.4.1 Agile Model:

Analysis Of Agile Model :

The meaning of Agile is swift or versatile. " **Agile process model**" refers to a software development approach based on iterative development. Agile methods break tasks into smaller iterations, or parts do not directly involve long term planning. The project scope and requirements are laid down at the beginning of the development process. Plans regarding the number of iterations, the duration and the scope of each iteration are clearly defined in advance.



Following are the phases in the Agile model are as follows:

1. Requirements gathering
2. Design the requirements
3. Construction/ iteration
4. Testing/ Quality assurance
5. Deployment
6. Feedback

Advantage of Agile Method:

1. Frequent Delivery
2. Face-to-Face Communication with clients.
3. Efficient design and fulfils the business requirement.
4. Anytime changes are acceptable.
5. It reduces total development time.

Each iteration is considered as a short time "frame" in the Agile process model, which typically lasts from one to four weeks. The division of the entire project into smaller parts helps to minimize the project risk and to reduce the overall project delivery time requirements.

4. DETAILED DESCRIPTION OF THE SYSTEM

4.1 Existing System:

The existing system at NCSC College relies on traditional methods for managing administrative and academic processes. These outdated methods involve **manual record-keeping, paper-based attendance tracking, and limited automation**, leading to inefficiencies in college operations. The lack of a centralized system results in **data redundancy, communication gaps, and inconsistencies** in managing student and faculty information.

Disadvantages of the Existing System:

- **Manual Processes:** Paper-based record-keeping is time-consuming and prone to errors.
- **Disparate Systems:** Different departments use independent systems, causing inefficiencies.
- **Limited Automation:** Tasks such as attendance marking, exam results, and student records require manual effort.
- **Data Redundancy & Inconsistency:** Repetitive data entry increases errors and mismanagement.
- **Communication Challenges:** Lack of a centralized system hinders smooth communication between students, faculty, and administrators.

4.2 Proposed System – NCSC College App (NCSC):

The NCSC College App is designed to overcome the limitations of the existing system by introducing **automation, centralization, and efficiency** in college operations. It is a **user-friendly and secure platform** that integrates various academic and administrative processes under a **single digital system**.

Admin Module

The **Administrator** is responsible for managing the entire system. The admin has full control over user accounts, course management, attendance tracking, and system security.

Admin Responsibilities:

- **User Management:**
 - Creating, modifying, and deleting user accounts (students, faculty, and staff).
 - Assigning roles and permissions based on responsibilities.
- **Course Management:**
 - Adding, updating, and managing courses.
 - Assigning faculty members to courses.
 - Managing course schedules, prerequisites, and syllabus updates.
- **Student Management:**
 - Enrolling new students and maintaining records.
 - Tracking student performance, attendance, and disciplinary actions.

- **Faculty Management:**
 - Managing faculty profiles, teaching assignments, and schedules.
 - Evaluating faculty performance and feedback.

Teacher Module

Teachers in **NCSC College App** can access a range of features to streamline their teaching responsibilities and administrative duties.

Teacher Responsibilities:

- **Course Management:** Updating course materials, assignments, and syllabus.
- **Attendance Management:** Marking and tracking student attendance.
- **Grade Management:** Uploading exam results, assignments, and academic performance reports.
- **Communication:** Sending notifications, updates, and important announcements to students.
- **Assignment Submission:** Managing and reviewing student-submitted assignments.
- **Collaboration & Discussion:** Engaging students through online discussions and forums.

Student Module

Students can use the **NCSC College App** to stay updated on their academic progress and college activities.

Student Features:

- **Course View:** Access course details, syllabus, and study materials.
- **Attendance View:** Check attendance records in real-time.
- **Grade View:** View exam results, assignments, and performance reports.
- **Communication:** Receive important announcements and messages from faculty.
- **Assignment View:** Access, submit, and track assignment statuses.

4.3 Advantages of the Proposed System (NCSC College App):

The **NCSC College App** brings **modernization and automation** to college operations, offering numerous benefits to students, faculty, and administrators.

Key Advantages:

1. Automated Administration

- Reduces manual workload by automating student enrollment, fee management, and attendance tracking.
- Minimizes errors and improves operational efficiency.

2. Centralized Information Management

- Stores all student, faculty, and administrative data in a **single database**.
- Enables **quick access, retrieval, and organization** of records.
- Eliminates the need for manual record-keeping and reduces paperwork.

3. Real-time Face Recognition for Attendance

- Integrates **Python-based face recognition** for secure and **automated attendance tracking**.
- Ensures **accurate identity verification**, reducing fraudulent attendance marking.
- Saves time and enhances security in college premises.

4. Enhanced Student Performance Monitoring

- Tracks attendance, grades, and assignment submissions in real-time.
- Helps teachers and administrators identify **at-risk students** and provide timely interventions.
- Supports student success through data-driven decision-making.

5. Improved Communication

- Provides an integrated messaging and notification system for **seamless communication**.
- Keeps students and faculty informed about schedules, events, and academic updates.

6. Secure & Role-Based Access

- Implements **role-based access control** to protect sensitive student and faculty data.
- Ensures that only **authorized users** can access specific information.

5. SYSTEM DESIGN

5.1 Feasibility Study:

All projects are feasible given unlimited resources and infinite time.

The feasibility report of the project holds the advantages and flexibility of the project.

This is divided into THREE sections:

1. Economic Feasibility

2. Technical Feasibility

3. Behavioral Feasibility

•Economically Feasibility:

Economic analysis is the most frequently used method for evaluating the effectiveness of the candidate system. More commonly known as cost/benefit analysis, the procedure is to be determining the benefits and savings that are expected from a candidate and compare them with costs. If benefits outweigh costs, then the decision is made to design and implement the system. A systems financial benefit must exceed the cost of developing that system. I.e. a new system being developed should be a good investment for the organization.

•Economic feasibility considers the following:

1. The cost to conduct a full system investigation.
2. The cost of hardware and software for the class of application.
3. The benefits in the form of reduced cost or fewer costly errors.
4. The cost if nothing changes.

(I.e. the proposed system is not developed)

❖ Technical feasibility:

Technical feasibility centres around the existing computer system (Hardware and Software etc.) and to what extent it supports the proposed addition.

For example, if the current computer is operating at 80 percent capacity - an arbitrary ceiling - then running another application could overload the system or require additional Hardware. This involves financial considerations to accommodate technical enhancements. If the budgets are a serious constraint, then the project is judged not feasible. In this project, all the necessary cautions have been taken care to make it technically feasible. Using a key the display of text/object is very fast. Also, the tools, operating system and programming language used in this localization process is compatible with the existing one.

Behavioral Feasibility:

People are inherently resistant to change, and computers have been known to facilitate change. An estimate should be made of how strong a reaction the user staff is likely to have toward the development of a computerized system. Therefore it is understandable that the introduction of a candidate system requires special efforts to educate and train the staff. In this way, the developed software is truly efficient and can work on any circumstances, tradition, locales. Behavioral study strives on ensuring that the equilibrium of the organization and status quo in the organization neither are nor disturbed and changes are readily accepted by the users.

5.2 Firebase Real Time Database's Structure:

Top-Level Collections:

Our database is organized by several top-level keys. Each key represents a collection (or module) of related data.

1. Users:-

- **Description:** Contains user authentication and profile information.
- **Structure:**
 - **User ID (Key):** Unique identifier for each user (e.g., "110", "1011", "F101", etc.)
 - **Fields:**
 - user_name : *String* – The username or full name.
 - password: *String* – User password.
 - role / roles: *String or Array[String]* – Role of the user (e.g., "student", "faculty", "Clerk", "Librarian", etc.).
 - token: *String (Optional)* – Device token for push notifications.
 - notes: *Object (Optional)* – Nested notes keyed by date (each containing title and description).

2. Current_Sem:-

- **Description:** Represents the current semester.
- **Field:**
 - *String* – e.g., "Odd"

3. Staff:-

- **Description:** Information on staff members.
- **Subcollections:**
 - **faculty:-**
 - Keys are faculty IDs (e.g., "F101", "F102", etc.)
 - **Fields:**
 - address: *String*

- department: *String*
- email: *String*
- experience: *String* (years)
- image: *String* (URL or path)
- name: *String*
- phone: *String*
- post: *String* (job title, e.g., "HOD", "Ass..Pro..")
- qualification: *String* (possibly multiple values, newline-separated)
- **non_teaching:-**
 - Keys are staff IDs (e.g., "LIB101", "STF101", etc.)
 - **Fields:**
 - address: *String* (if applicable)
 - details: *String* – Additional notes.
 - email: *String*
 - name: *String*
 - password: *String*
 - phone: *String* (if applicable)
 - profileImage: *String* (Optional)
 - qualification: *String*
 - roles: *Array[String]*

4. Students:-

- **Description:** Contains details for each student.
 - **Structure:**
 - **Student ID (Key):** Unique identifier (e.g., "NCSC001", "NCSC1010001", etc.)
 - **Fields:**
 - dept: *String* – Department (e.g., "BCA", "BSc")
-

- email: *String*
- encoding: *Array[Number]* – (Possibly for facial recognition or other encoding purposes)
- name: *String*
- sem: *String* – Current semester.
- stud_id: *String* – Student ID (duplicate of key in some cases)
- url: *String* (Optional)

5. department:-

- **Description:** Lists the departments offered.
- **Structure:**
 - **Department ID (Key):** (e.g., "101", "102", "103", "104")
 - **Fields:**
 - department: *String* – Department name.
 - department_id: *String*
 - img: *String* – Image or logo.
 - dep_desc (Optional): *String* – Description.
 - dep_sem (Optional): *String* – Duration or semester details.

6. Subjects:-

- **Description:** Contains subject/course details.
- **Structure:**
 - **Subject ID (Key):** (e.g., "BCA101", "BCA102", etc.)
 - **Fields:**
 - ass_faculties: *Array[String]* – Faculty IDs associated with the subject.
 - dept: *String* – Department offering the subject.
 - id: *String* – Subject identifier.
 - name: *String* – Subject name.
 - sem: *String* – Semester for which the subject is offered.

7. Assignments:-

- **Description:** Assignment details are organized by department and semester.
- **Example Structure:**
 - Department (e.g., "BCA")
 - Semester (e.g., "5")
 - Subject (e.g., "WFS")
 - Faculty ID (e.g., "F101")
 - Assignment Title (e.g., "Assignment 1", "Assignment 2")
 - **Fields:**
 - content: *String* – URL or content location.
 - fileType: *String* – Type of file (e.g., "image", "pdf").
 - lastDate: *String* – Due date.

8. Attendance:-

- **Description:** Attendance records for different subjects.
- **Structure:**
 - **Subject Code (Key):** (e.g., "AMC", "WFS")
 - **Date (Key):** (formatted with date and possibly time, e.g., "03-03-2025-19")
 - **Record:**
 - Key can be a student ID or a roll number.
 - **Field:**
 - status: *String* – "P" (Present) or "A" (Absent).

9. internal_marks:-

- **Description:** Internal marks for students.
 - **Structure:**
-

- Organized by Department (e.g., "BCA") then Semester (e.g., "5")
- **Student ID (Key):**
 - **Subject Code (Key):**
 - *Value:* Marks (as Number or String)

10. Test:-

- **Description:** Test or exam details.
- **Structure:**
 - Organized by Department and Semester.
 - Each Test (random key) includes:
 - Report: *Object* – Contains marks or results per identifier.
 - ending: *String* – End time/date.
 - starting: *String* – Start time/date.
 - level: *String* – Difficulty level (e.g., "Medium").
 - no_ques: *Number* – Number of questions.
 - sub: *String* – Subject code.
 - time_que: *String* – Time allocated per question.
 - title: *String* – Test title.
 - topics: *Array[String]* – List of topics covered.

11. Circulars:-

- **Description:** Official circulars or notices.
 - **Structure:**
 - **Circular ID (Key):** (Auto-generated key)
 - **Fields:**
 - description: *String* – The content of the circular.
 - faculty_rev: *Boolean* – Reviewed by faculty.
 - staff_rev: *Boolean* – Reviewed by staff.
 - student_rev: *Boolean* – Reviewed by students.
 - published_date: *String* – Date of publication.
-

- title: *String* – Circular title.

12. Query:-

- **Description:** User-submitted queries or issues.
- **Subcollections:**
 - **computerlab, departmentquery, sciencelab, etc.**
 - **Structure for each query entry:**
 - **Query ID (Key):** (Auto-generated)
 - **Fields:**
 - description: *String* – Query details.
 - image: *String* (Optional) – URL of an attached image.
 - pnumber: *String* (if relevant)
 - resolved: *Boolean* (Optional) – Status of the query.
 - subject: *String* (Optional) – Subject or topic of the query.
 - timestamp: *String* (Optional) – Time of submission.

13. Request:-

- **Description:** Requests submitted by users (e.g., Bonafide, Bus Pass, Train Pass).
- **Structure:**
 - **Request Type (Key):** (e.g., "Bonafide", "Bus Pass", "Train Pass")
 - **Department (Key):** (e.g., "BSC")
 - **Semester (Key):** (e.g., "5")
 - **Student ID (Key):**
 - **Fields:**
 - date: *String* – Request date.
 - request: *String* – Type of request.
 - solve: *Boolean* – Whether the request has been solved.

14. Books:-

- **Description:** Library or book-related data.
- **Structure:**
 - **Book ID (Key):** (e.g., "BCA001", "BCA002")
 - **Fields:**
 - author: *String* – Author's name.
 - copies: *Number* – Number of copies available.
 - dept: *String* – Department associated with the book.
 - name: *String* – Title of the book.
 - **Assing** (Optional):
 - Nested under a book for assignment records, with keys for student IDs and fields like:
 - due_date: *String*
 - sname: *String* – Student name.

5.3 UML Class Diagram:

A **UML Class Diagram** is one of the most commonly used diagrams in the **Unified Modeling Language (UML)**. It is used to represent the **structure** of a system by showing its **classes, attributes, methods, and the relationships** between them.

Key Elements of a UML Class Diagram

1. Class Representation

Each class is represented as a **rectangle** divided into three sections:

- **Top Section:** The class name (e.g., `Person`).
- **Middle Section:** Attributes (variables of the class).
- **Bottom Section:** Methods (functions of the class).

2. Access Modifiers (Visibility)

Symbol	Meaning
+	Public (Accessible from anywhere)
-	Private (Accessible only within the class)
#	Protected (Accessible within the class and subclasses)
~	Package (Accessible within the same package)

Relationships in UML Class Diagram:-

1. Association (→):-

- Represents a relationship between two classes.
- Example: A `Student` "has" a `Course`.

→ **Notation:** A straight line connecting two classes.

→ **Multiplicity:**

- 1 → Exactly one instance.
 - 0..1 → Zero or one instance.
 - * → Many instances.
 - 1..* → At least one instance.
-

2. Aggregation ($\diamond\rightarrow$) (Weak Relationship):-

- A class **contains** another class but they can exist independently.
- Example: A `Library` has `Books`, but books can exist without the library.

→ **Notation:** A **hollow diamond** at the container class (`Library`).

3. Composition ($\blacklozenge\rightarrow$) (Strong Relationship)

- A class **owns** another class, and they cannot exist separately.
- Example: A `House` has `Rooms`, and rooms cannot exist without the house.

→ **Notation:** A **filled diamond** at the container class (`House`).

4. Inheritance / Generalization (\uparrow)

- Represents the "**is-a**" relationship (i.e., subclass inherits from a superclass).
- Example: A `Car` is a type of `Vehicle`.

→ **Notation:** A **solid line with a hollow triangle** pointing to the parent class.

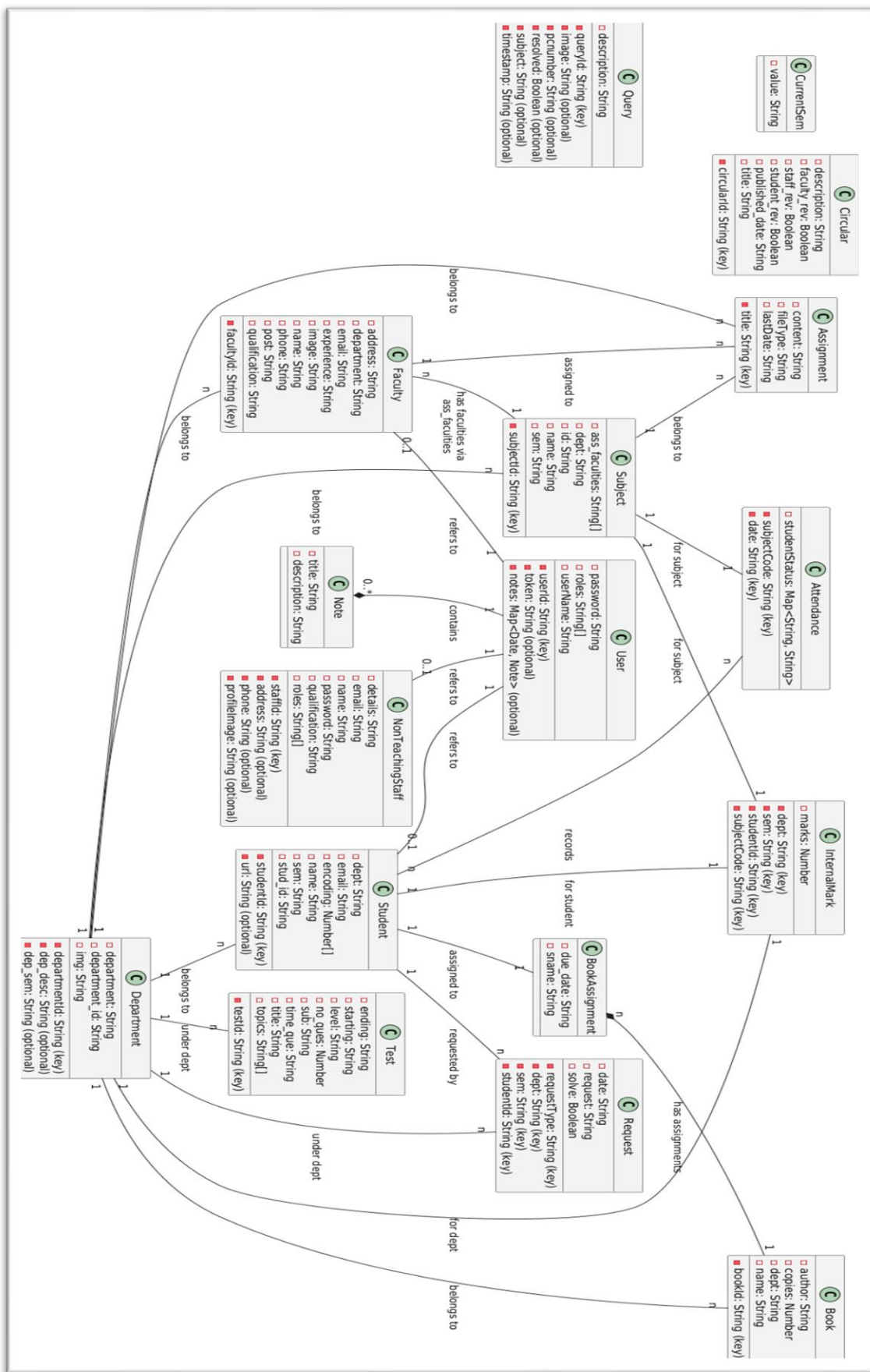
5. Dependency (\dashrightarrow)

- Represents a temporary or indirect relationship.
- Example: A `Doctor` **prescribes** a `Medicine`.

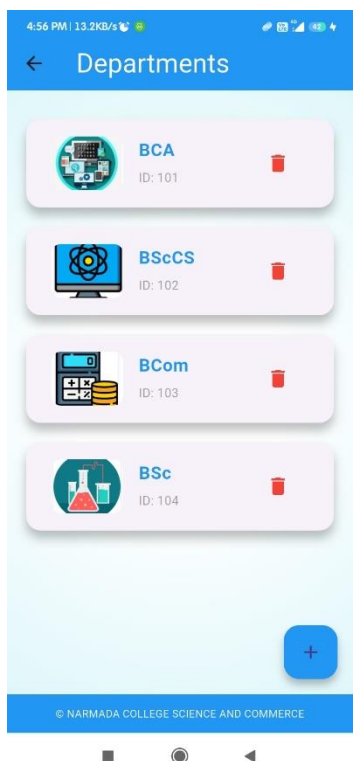
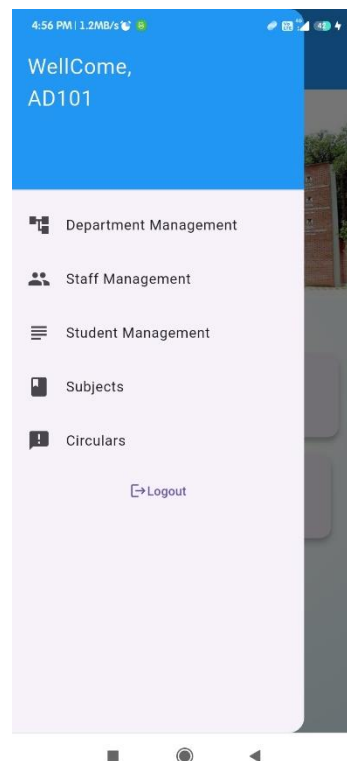
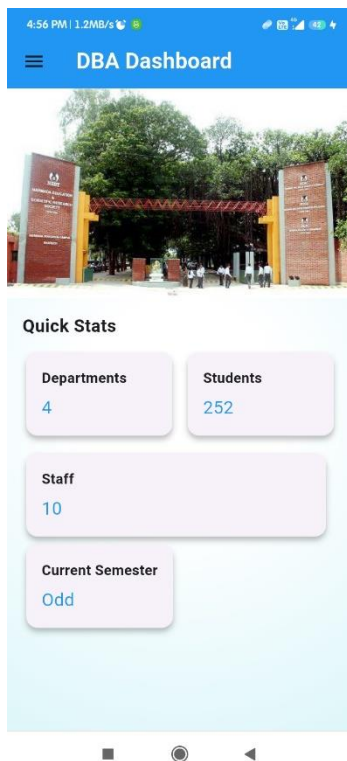
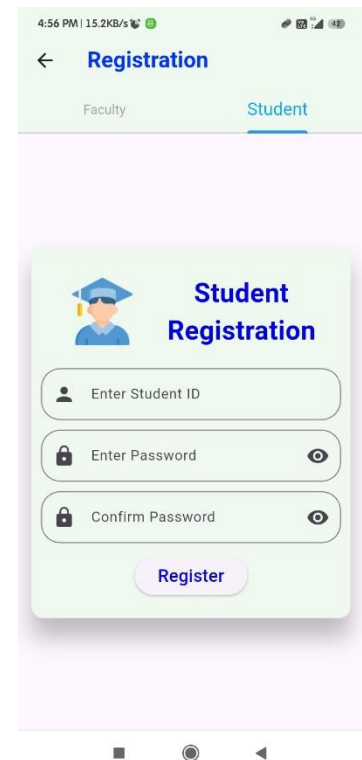
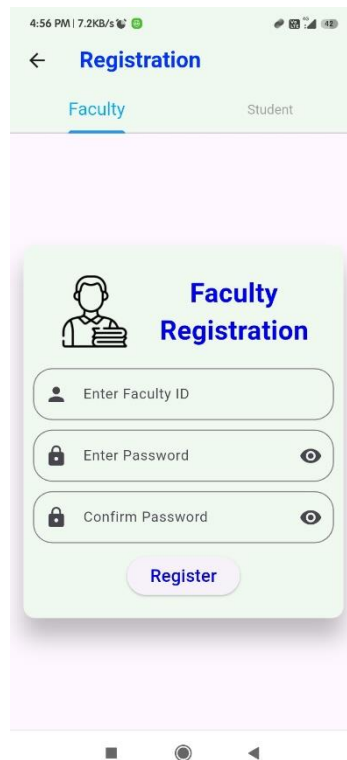
→ **Notation:** A **dashed arrow** from the dependent class to the independent class.

Why Use UML Class Diagrams?

- Helps in **object-oriented design**.
- Visualizes the **structure** of a system.
- Improves **communication** among developers.
- Serves as **documentation** for the system.



5.4 INTERFACE DESIGN:



4:57 PM | 10.3KB/s

← Departments


+ Add Department

Enter Department ID

📅 Enter Department Name

📄 Enter Department Description

🎓 Enter Number of Semesters

Select Image for Department 

Add Department

© NARMADA COLLEGE SCIENCE AND COMMERCE

4:56 PM | 10.2KB/s

← Staff Management

Teaching Staff Non-Teaching Staff

F105 Nilay p
Post: Ass..Pro.. **BCA**

BCA11 Ms.Shreya Jain
Post: T.A. **BCA**

F101 Uvesh Mansuri
Post: HOD **BCA**

F102 Ramnik Gilatar
Post: HOD **BCA**

F103 Chetan Parmar
Post: Ass..Pro.. **BCA**

F104 Bittu Agarwal
Post: HOD **BCA**

+

4:56 PM | 10.4KB/s

← Staff Management

Teaching Staff Non-Teaching Staff

STF102 Rahul
Post: Clerk

STF103 Bhavin
Post: Science Lab Assistant

LIB101 Khushi
Post: Librarian

STF101 Ansuul
Post: Lab Assistant

+

4:57 PM | 16.0KB/s

← Add Faculty

📄 Enter Faculty Id

👤 Enter Faculty Name

🎓 Enter Qualification

📅 Select Department

✉ Enter Email

🔗 Select Faculty Role

Head of Department

Assistant Profesor

Teaching Assistant

4:57 PM | 9.5KB/s

← Add Non-Teaching Staff

📄 Enter ID

👤 Enter Name

✉ Enter Email

🔒 Enter Password

🎓 Enter Qualification

ℹ Enter Details

Select Roles

Clerk

Science Lab Assistant

Computer Lab Assistant

4:57 PM | 9.1KB/s

← Subjects

Select Department: All

Select Semester: All

BCA101 C
Department:BCA
Semester:1

BCA102 Maths
Department:BCA
Semester:1

BCA103 RDBMS
Department:BCA
Semester:1

BCA104 Communication Skills
Department:BCA
Semester:1

BCA105 Introduction to computer
Department:BCA
Semester:1

BCA301 Business development

+

4:57 PM | 9.1KB/s

← Add Subjects

Enter Subject Id

📄 Enter Subject Name

📅 Select Department

🎓 Enter Semester

Add Subject

4:58 PM | 10.5KB/s

← Assign Faculty

Assign Faculty to Maths

Assigned Faculties

BCA11 Ms.Shreya Jain
Department:BCA

Select Department All

Faculties

F101 Uvesh Mansuri
Department:BCA

F102 Ramnik Gilatar
Department:BCA

F103 Chetan Parmar
Department:BCA

F104 Bittu Agarwal
Department:BCA

F105 Nilay p
Department:BCA

4:58 PM | 39.8KB/s

← Circulars

Sports Day
To all students and faculty, please be... 06.04.2025

Annual function
Dear All, We are pleased t... 06.04.2025

+

4:58 PM | 39.8KB/s

← Add Circular


NCSC
विज्ञान यज्ञं तनुते


T Enter Subject of Circular

B I U

Enter Description

4:59 PM | 10.4KB/s

← Add Circular


NCSC
विज्ञान यज्ञं तनुते

Enter Subject of Circular

T Annual Day

B I U

Enter Description


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A all app so dila do do DL DL who still all do se do DL se vo do DL se vo cp P DL co

Post Circular

4:59 PM | 8.9KB/s

← Circular Preview


NCSC
विज्ञान यज्ञं तनुते

NARMADA COLLEGE OF SCIENCE & COMMERCE
Zadeshwar, Bharuch(Gujarat) 392011
Date: 12.04.2025

Annual Day

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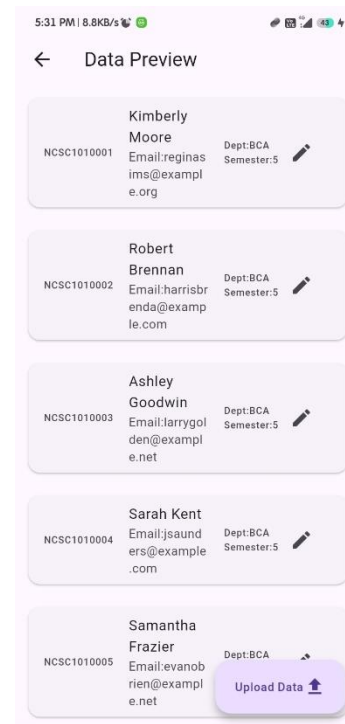
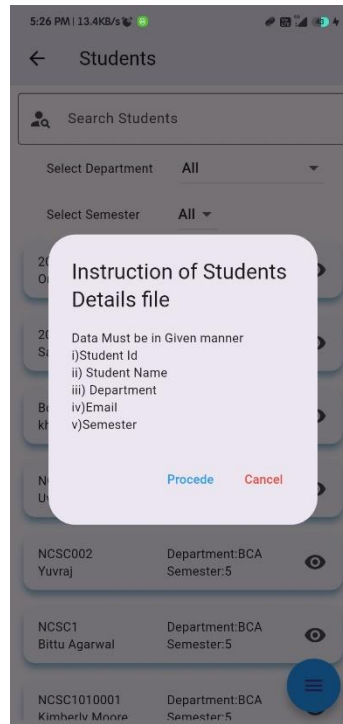
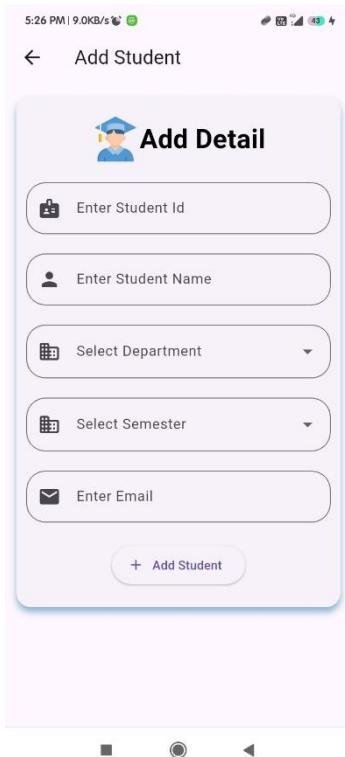
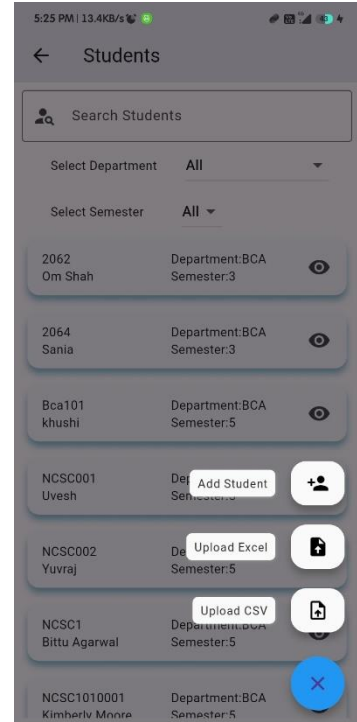
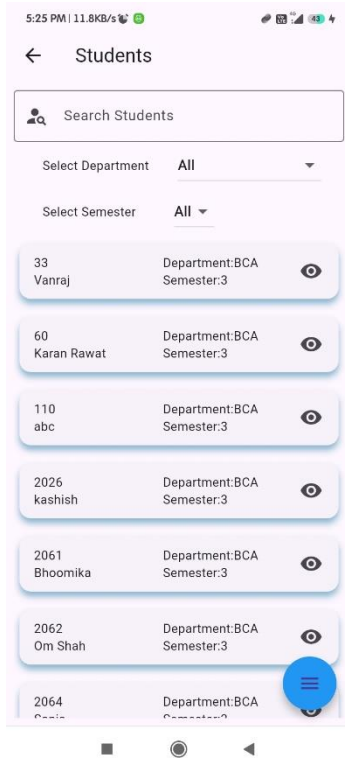
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Whome to Send

Faculty Staff Student

Send

NCSC : COLLEGE MANAGEMENT SYSTEM



Dashboard

- Department Attendance Report
- Department Internal Marks Report
- Department Assignment Report
- Students Query
- Time Table
- Attendance
- Internal Marks
- Assignment
- Test

Subjects Attendance

- c** (Semester:1) - Assign Faculties:- Ms.Shreya Jain
- Maths** (Semester:1) - Assign Faculties:- Ms.Shreya Jain
- RDBMS** (Semester:1) - Assign Faculties:- Nilay p
- Communication Skills** (Semester:1) - Assign Faculties:- Bittu Agarwal
- Introduction to computer** (Semester:1) - Assign Faculties:- Nilay p
- Business development** (Semester:3) - Assign Faculties:- Nilay p
- MAD1** (Semester:3) - Assign Faculties:- Nilay p

Department Queries (BCA)

- Test** (Student: Uvesh) - test
- Water Cooler** (Student: Bittu Agarwal) - Bca department Water coller is not working

Timetable

Monday

Time	FY	SY	TY
11:00-12:00	Maths, Ms.Shreya Jain	Business development, Nilay p	WFS, Uvesh Mansuri
12:00-12:30	break	break	break
12:30-13:30	Introduction to computer, Nilay p	MAD1, Bittu Agarwal	ASP NET, Ms.Shreya Jain
13:30-14:30	RDBMS, Nilay p	Python, Ramnik Gilatar	Network Technology, Ms.Shreya Jain
14:30-15:30	Communication Skills, Bittu Agarwal	wfs	Unix, Nilay p

Tuesday

Time	FY	SY	TY
11:00-12:00	Maths, Ms.Shreya Jain	MAD1, Bittu Agarwal	Network Technology, Ms.Shreya Jain
12:00-12:30	break	break	break
12:30-13:30	Introduction to computer, Nilay p	Python, Ramnik Gilatar	ASP NET, Ms.Shreya Jain

NCSC : COLLAGE MANAGEMENT SYSTEM

Subjects for BCA

Start Time: 11:00 AM

End Time: 3:30 PM

Subject: Python
Semester: 3
Faculty: Ramnik Gilatar
Enter Slots per Week: 3

Subject: C++
Semester: 3
Faculty: Nilay p
Enter Slots per Week: 4

Subject: Statics
Semester: 3
Faculty: Uvesh Mansuri
Enter Slots per Week: 2

Subject: AMC
Semester: 5
Faculty: Bittu Agarwal, Ms. Shreya Jain
Enter Slots per Week: 4

Generating Time Table

Timetable

Monday

Time	FY	SY	TY
11:00 - 12:00	C, Ms. Shreya Jain	Python, Ramnik Gilatar	AMC, Bittu Agarwal
12:00 - 13:00	Maths, Ms. Shreya Jain	C++, Nilay p	WFS, Uvesh Mansuri
13:00 - 13:30	break	break	break
13:30 - 14:30	RDBMS, Nilay p	MAD1, Bittu Agarwal	Unix, Nilay p
14:30 - 15:30	Introduction to computer, Nilay p	Business development, Nilay p	ASP NET, Ms. Shreya Jain

Tuesday

Time	FY	SY	TY
11:00 - 12:00	Maths, Ms. Shreya Jain	Python, Ramnik Gilatar	ASP NET, Ms. Shreya Jain
12:00 - 13:00	Communication Skills, Bittu Agarwal	MAD1, Bittu Agarwal	WFS, Bittu Agarwal
13:00 -			

Timetable saved successfully!

WFS Attendance

Student Id	Student Name	Attendance Pr(%)
Bca101	khushi	9.09%
NCSC001	Uvesh	90.91%
NCSC002	Yuvraj	0.00%
NCSC1	Bittu Agarwal	27.27%
NCSC1010001	Kimberly Moore	72.73%
NCSC1010002	Robert Brennan	81.82%
NCSC1010003	Ashley Goodwin	36.36%
NCSC1010004	Sarah Kent	54.55%
NCSC1010005	Samantha Frazier	36.36%
NCSC1010006	Jessica Rivera	54.55%
NCSC1010007	Susan Heath	45.45%
NCSC1010008	Thomas Foster	27.27%

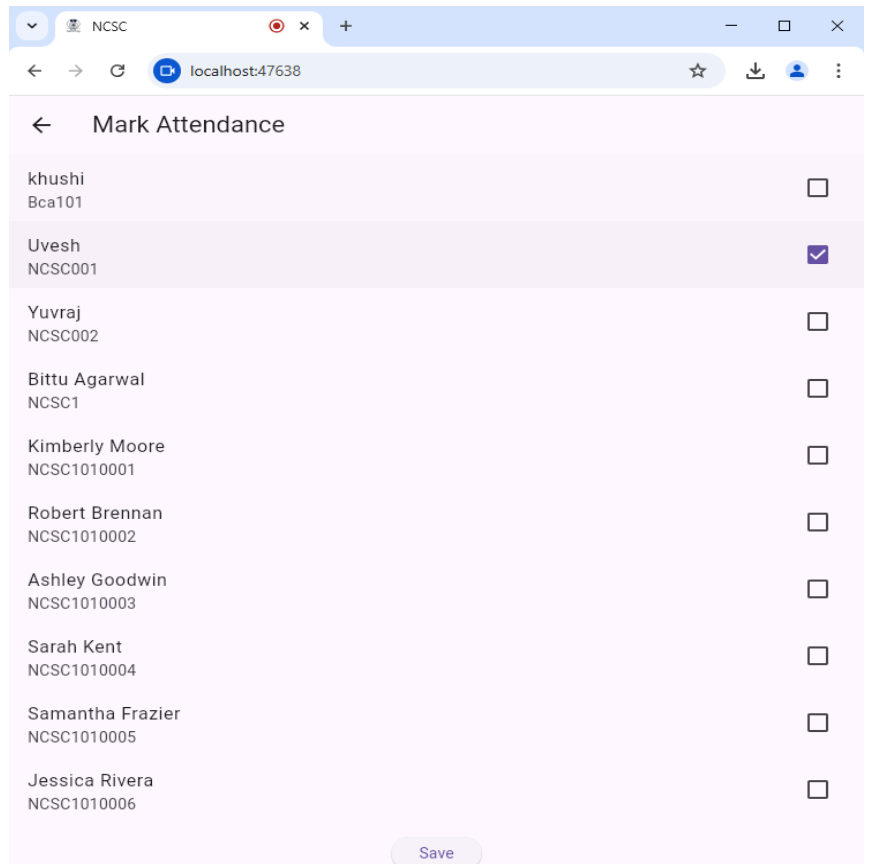
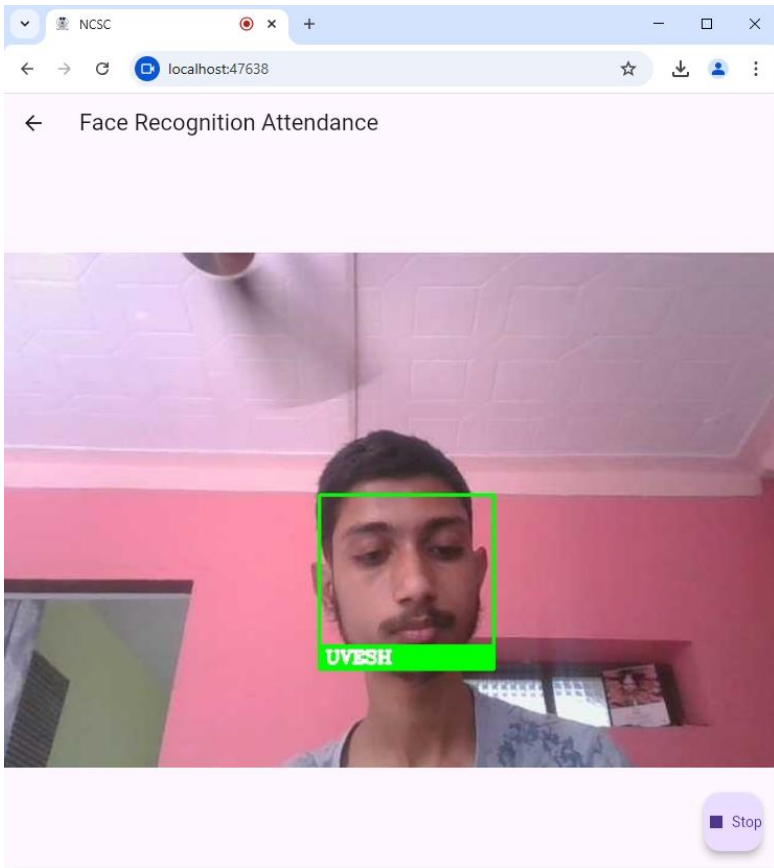
[Take Attendance](#)

[View AttendanceSheet](#)

Mark Attendance

- khushi Bca101
- Uvesh NCSC001
- Yuvraj NCSC002
- Bittu Agarwal NCSC1
- Kimberly Moore NCSC1010001
- Robert Brennan NCSC1010002
- Ashley Goodwin NCSC1010003
- Sarah Kent NCSC1010004
- Samantha Frazier NCSC1010005
- Jessica Rivera NCSC1010006

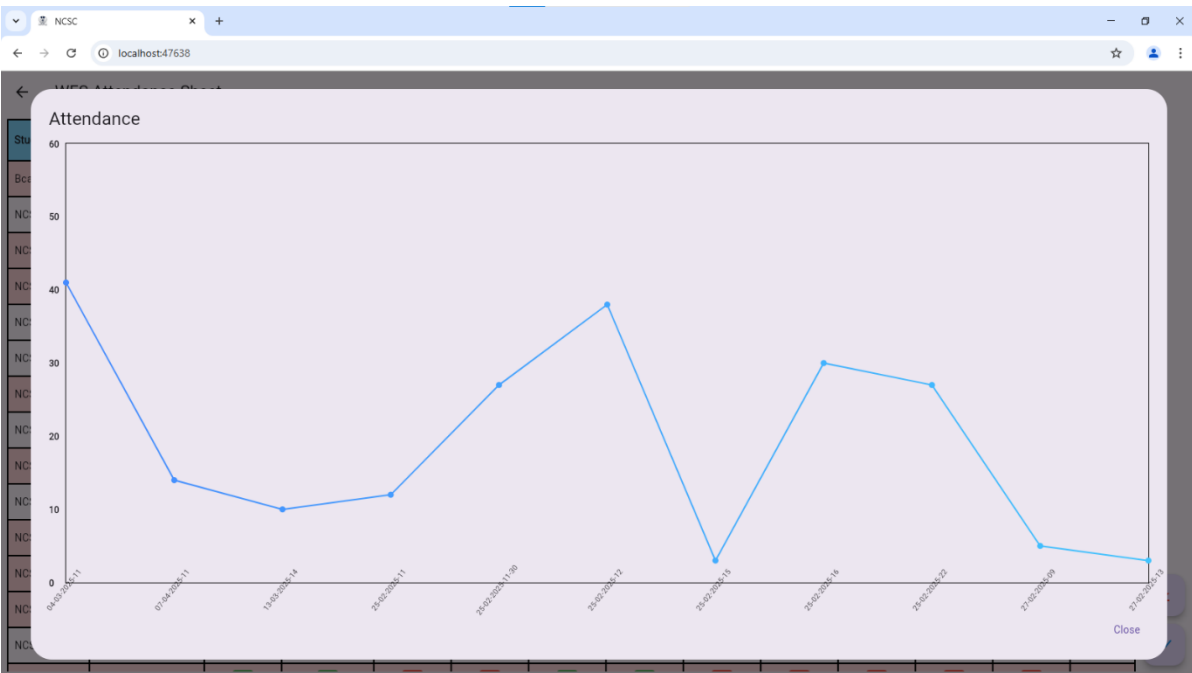
[Save](#)



NCSC : COLLAGE MANAGEMENT SYSTEM

WFS Attendance Sheet

Student ID	Student Name	25-02-2025-11	25-02-2025-11-30	25-02-2025-12	25-02-2025-15	25-02-2025-16	25-02-2025-22	27-02-2025-09	27-02-2025-13	04-03-2025-11	13-03-2025-14	07-04-2025-11	Percentage
Bca101	khushi	E	E	E	E	E	E	E	E	E	E	P	9.09%
NCSC001	Uvesh	P	P	A	P	P	P	P	P	P	P	P	90.91%
NCSC002	Yuvraj	E	E	E	E	E	E	E	E	E	E	A	0.00%
NCSC1	Bittu Agarwal	E	E	E	E	E	E	E	E	P	P	P	27.27%
NCSC1010001	Kimberly Moore	A	P	P	P	P	P	P	P	P	A	A	72.73%
NCSC1010002	Robert Brennan	P	P	P	A	P	P	P	P	P	A	P	81.82%
NCSC1010003	Ashley Goodwin	A	P	A	P	P	A	P	A	A	A	A	36.36%
NCSC1010004	Sarah Kent	P	A	P	A	P	P	A	A	P	A	P	54.55%
NCSC1010005	Samantha Frazier	A	P	A	A	A	P	P	A	P	A	A	36.36%
NCSC1010006	Jessica Rivera	P	P	P	A	P	A	A	A	P	A	P	54.55%
NCSC1010007	Susan Heath	P	P	P	A	P	A	A	A	P	A	A	45.45%
NCSC1010008	Thomas Foster	A	P	A	A	A	P	A	A	P	A	A	27.27%
NCSC1010009	Mr. Tracy Peterson	P	P	P	A	P	A	A	A	A	A	A	36.36%
NCSC1010010	Debra Campos	P	P	P	A	P	P	A	A	P	A	A	54.55%



NCSC : COLLAGE MANAGEMENT SYSTEM

Internal Marks

Bca101 khushi	Enter Marks
NCSC001 Uvesh	Enter Marks 30
NCSC002 Yuvraj	Enter Marks
NCSC1 Bittu Agarwal	Enter Marks
NCSC1010001 Kimberly Moore	Enter Marks 46
NCSC1010002 Robert Brennan	Enter Marks 6
NCSC1010003 Ashley Goodwin	Enter Marks 6
NCSC1010004 Sarah Kent	Enter Marks 16
NCSC1010005	Enter Marks

Save

Assignments

Assignment 1
Subject: WFS
Due: 2025-03-17

Assignment 2
Subject: WFS
Due: 2025-04-07

+

Upload Assignment for WFS

Assignment Title
Assingment3

Upload PDF Upload Image

File Selected: PDF

Last Date: 2025-04-15

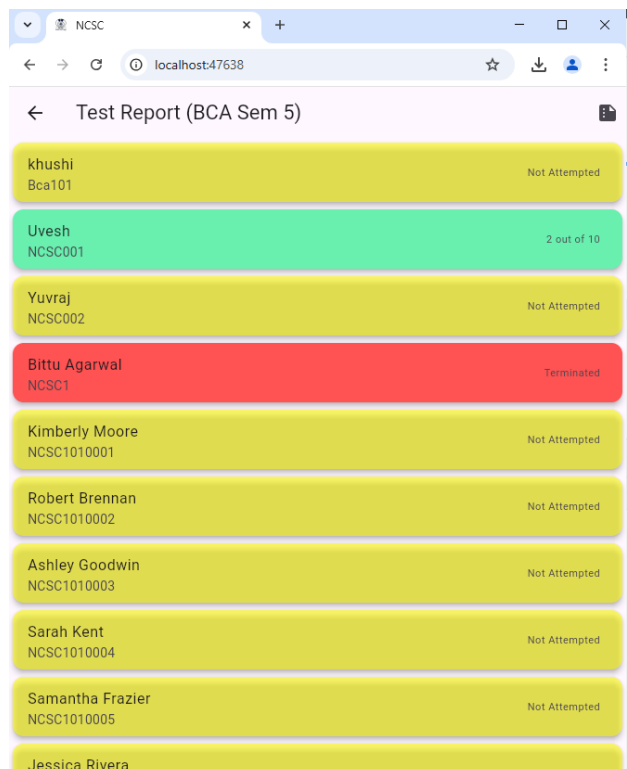
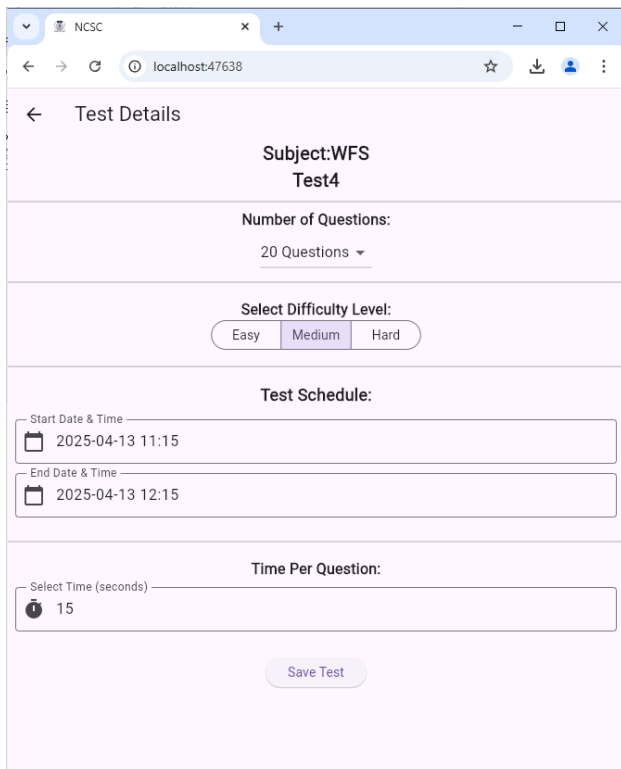
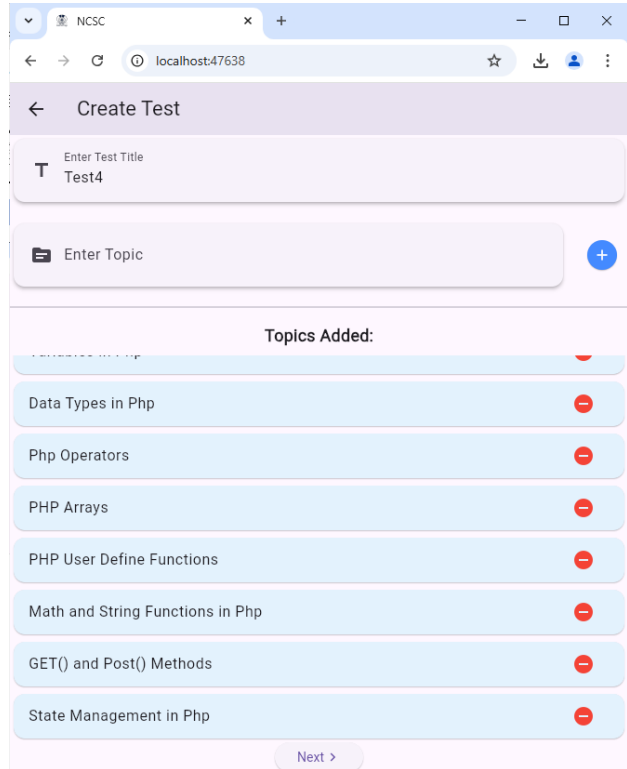
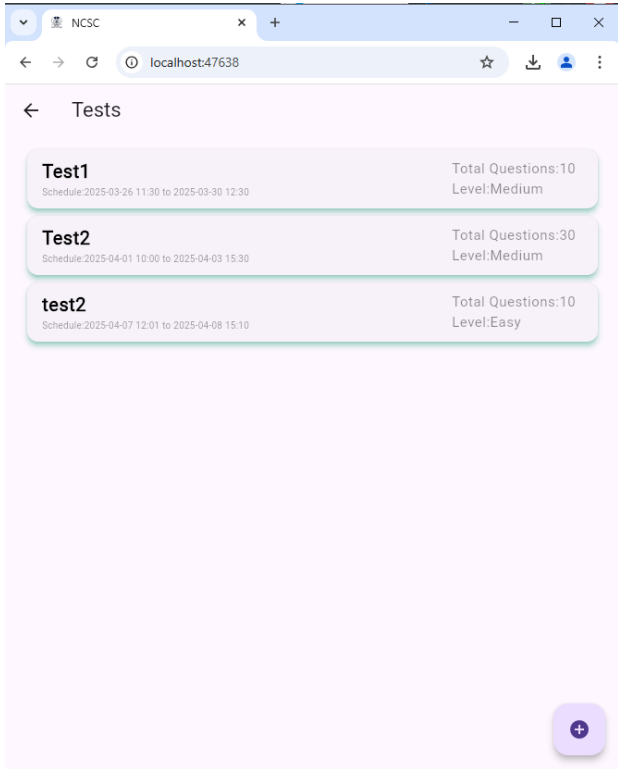
Upload Assignment

Assignment Details

Students List

khushi ID: Bca101	<input checked="" type="checkbox"/>
Uvesh ID: NCSC001	<input checked="" type="checkbox"/>
Yuvraj ID: NCSC002	<input checked="" type="checkbox"/>
Bittu Agarwal ID: NCSC1	<input checked="" type="checkbox"/>
Kimberly Moore ID: NCSC1010001	<input checked="" type="checkbox"/>
Robert Brennan ID: NCSC1010002	<input checked="" type="checkbox"/>
Ashley Goodwin ID: NCSC1010003	<input checked="" type="checkbox"/>
Sarah Kent ID: NCSC1010004	<input type="checkbox"/>

Student submissions saved successfully!



NCSC : COLLEGE MANAGEMENT SYSTEM

Test Report (BCA Sem 5)

khushi Bca101	Not Attempted
Uvesh NCSC001	2 out of 10
Yuvraj NCSC002	Not Attempted
Bittu Agarwal NCSC1	Terminated
Kimberly Moore NCSC1010001	Not Attempted
Robert Brennan NCSC1010002	Not Attempted
Ashley Goodwin NCSC1010003	Not Attempted
Sarah Kent NCSC1010004	Not Attempted
Samantha Frazier NCSC1010005	Not Attempted
Jessica Rivera	Not Attempted


Summary

■ Finished:1
■ Terminated:1
■ Remaining:52

Total Students Attempted:2

Close

Faculty Profile




Name	Uvesh Mansuri
Email	usm@gmail.com
Department	BCA
Post	HOD
Qualification	MTech BTech
Experience	6
Phone	7046912108
Address	Vadadla

[Logout](#)

Faculty Profile

Name	Uvesh Mansuri
Email	usm@gmail.com
Department	BCA
Post	HOD
Qualification	MTech BTech
Experience	6
Phone	7046912108
Address	Vadadla

Edit Profile



Phone: 7046912108
 Address: Vadadla
 Experience: 6

Cancel Save

Faculty Updates

[Calendar](#) →

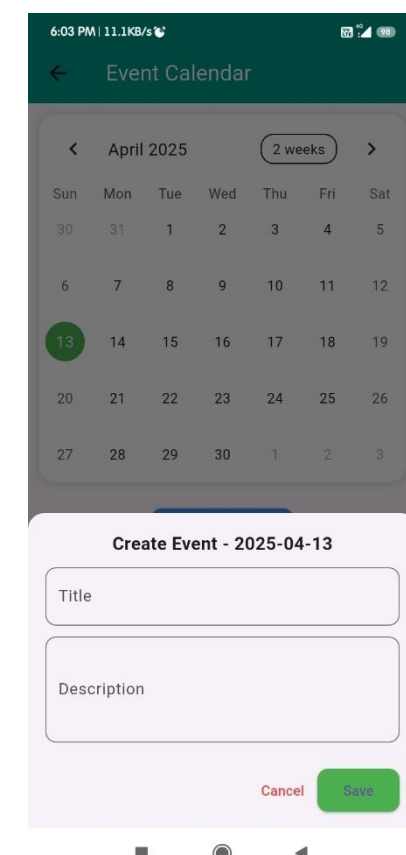
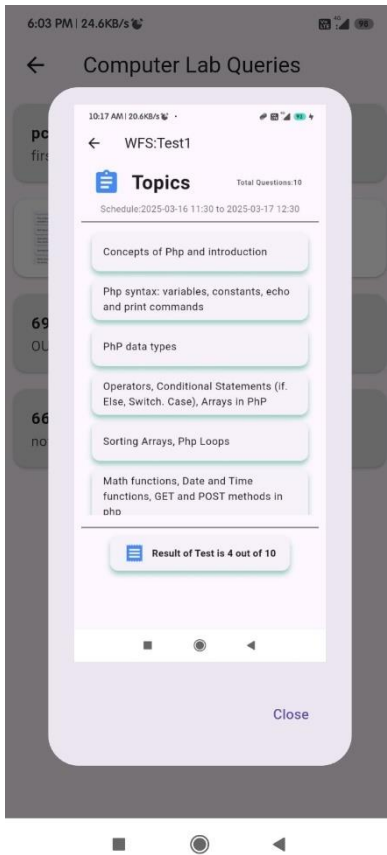
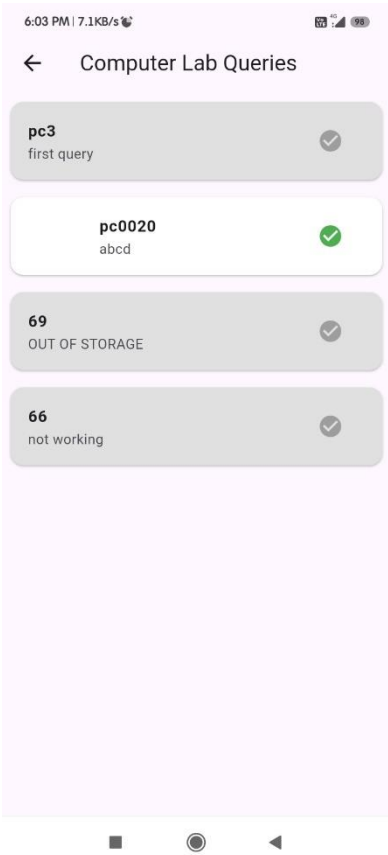
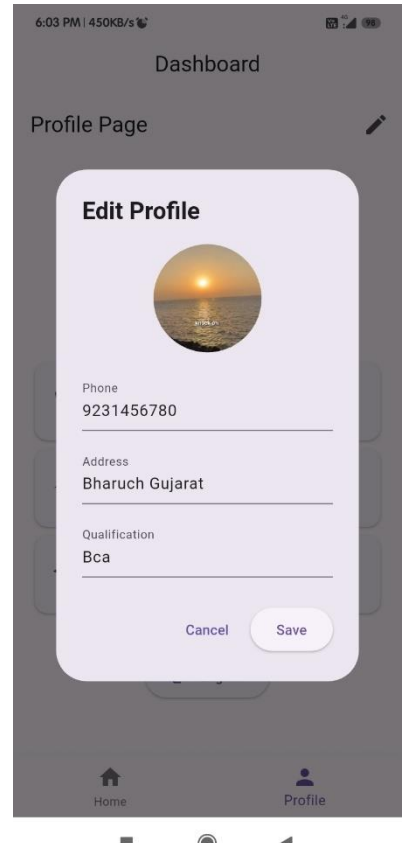
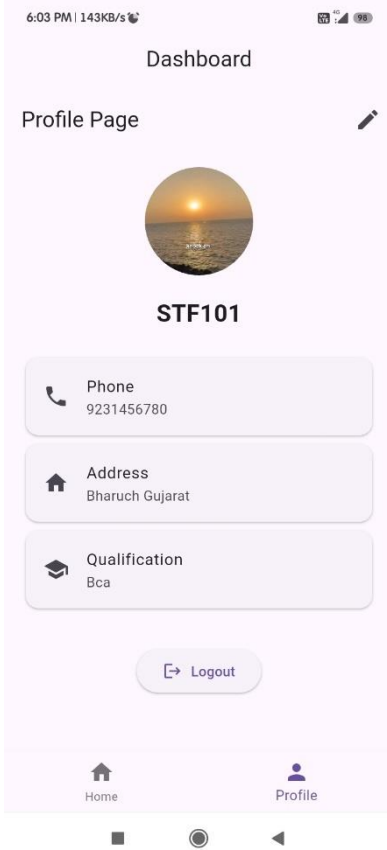
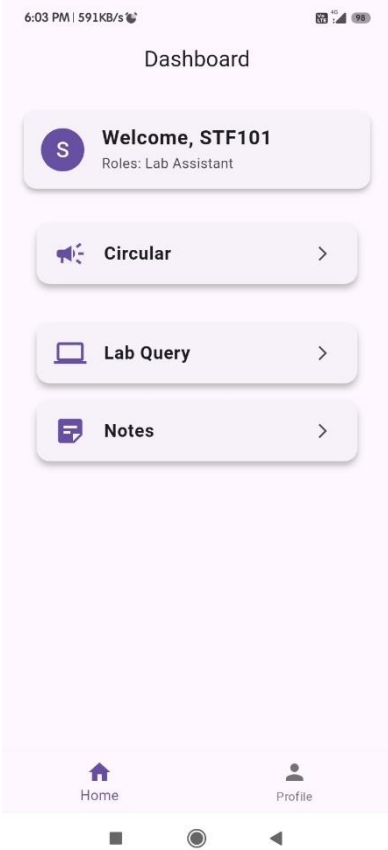
[News for you](#) →

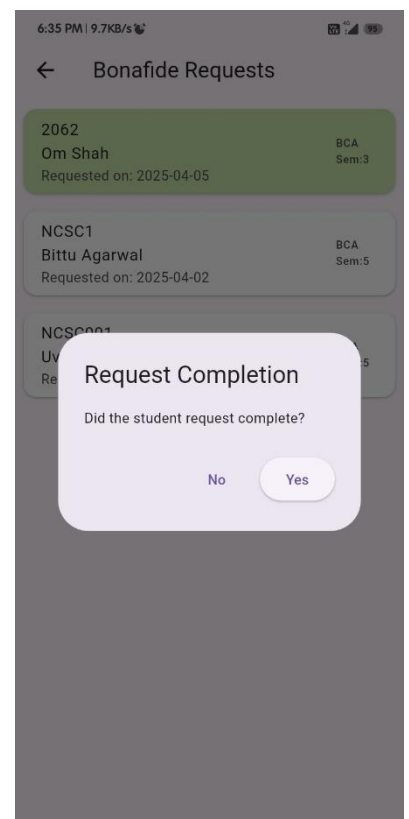
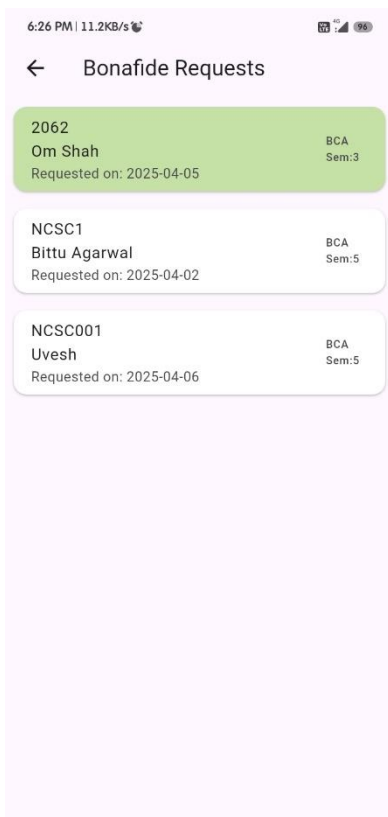
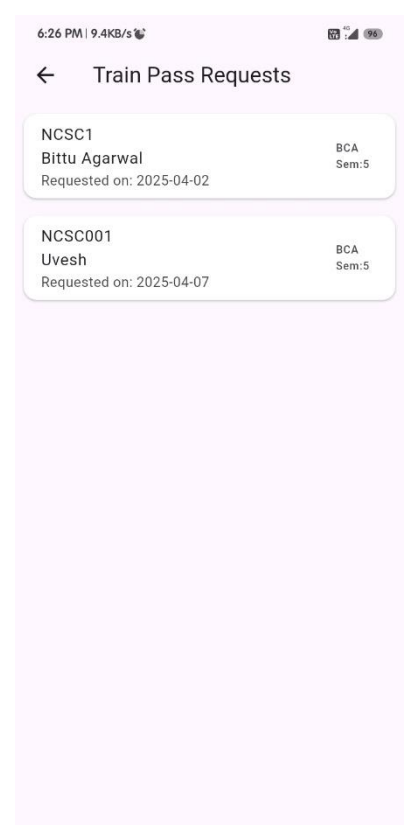
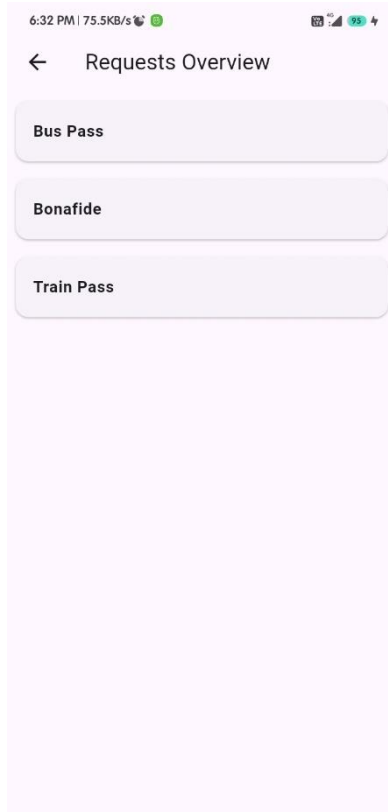
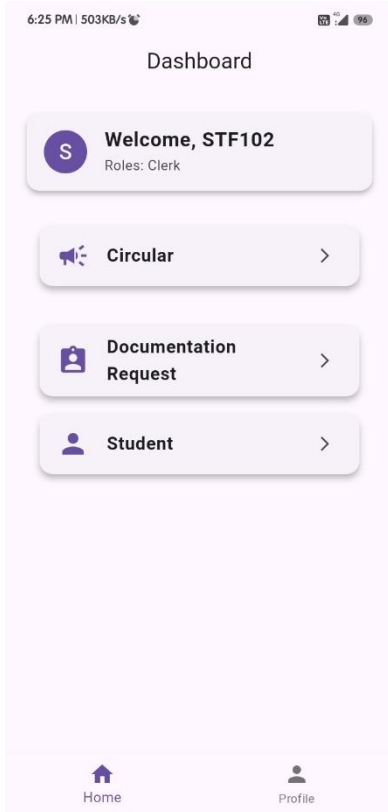
The screenshot shows a web browser window with the URL localhost:47638. The page title is 'Event Calendar'. Below the title is a calendar for April 2025. The date 13 is highlighted in a green circle. Below the calendar is a form titled 'Create Event - 2025-04-13'. The form has three input fields: 'Title', 'Description', and 'Audience'. The 'Audience' dropdown menu is set to 'Faculty'. There are 'Cancel' and 'Save' buttons at the bottom right of the form.

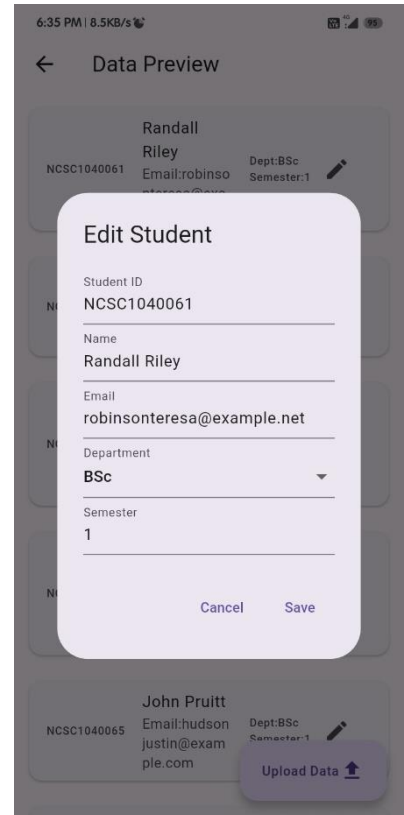
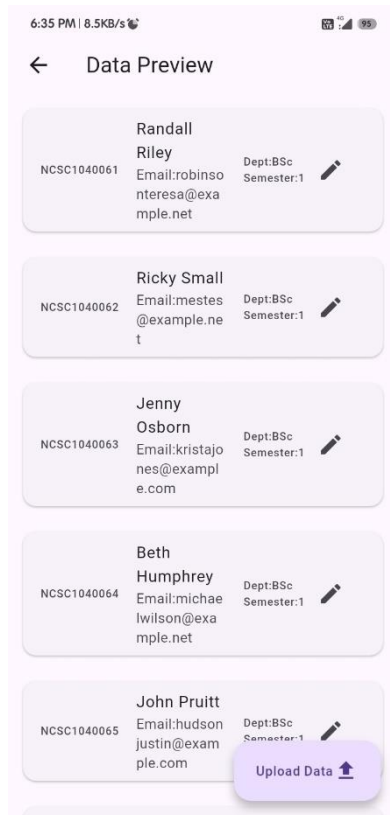
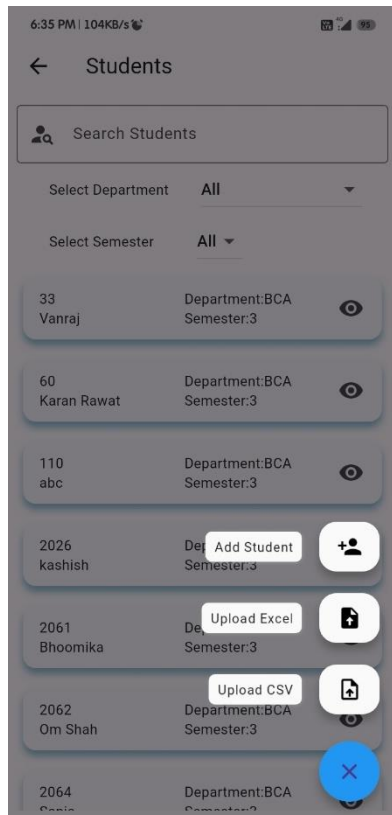
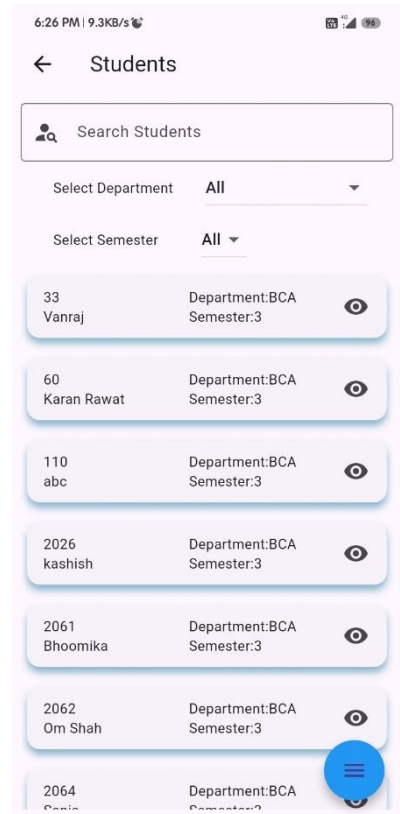
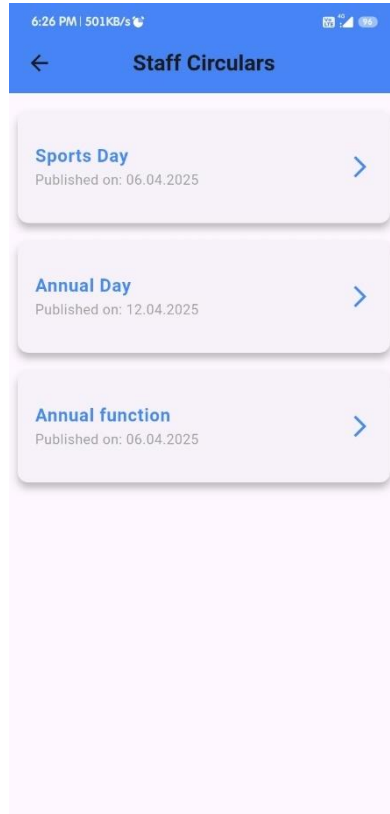
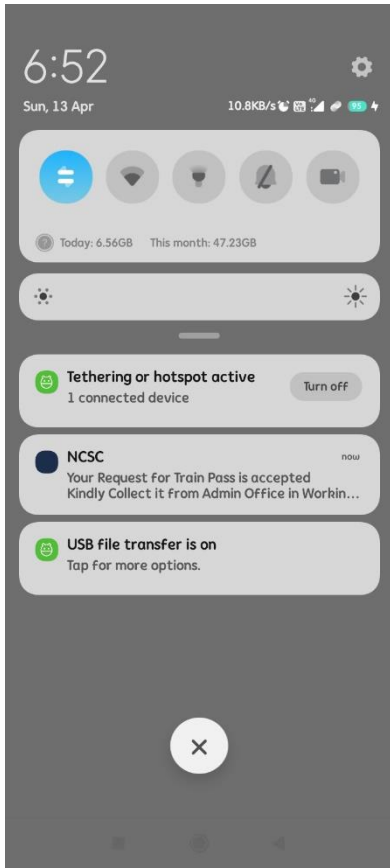
The screenshot shows a web browser window with the URL localhost:47638. The page title is 'Event Calendar'. Below the title is a calendar for April 2025. The date 7 is highlighted in a green circle, and the date 13 is highlighted in a blue circle. Below the calendar is a '+ Create Event' button. Below that is a section titled 'Events on 2025-04-07' which lists two events: 'Exam' (Description: External Exam, From Uvesh Mansuri to student) and 'Test' (Description: Test of wfs on Monday, From Bittu Agarwal to student).

The screenshot shows a web browser window with the URL localhost:47638. The page title is 'Faculty Circulars'. Below the title is a list of three circulars: 'Annual function' (Published on: 06.04.2025), 'Sports Day' (Published on: 06.04.2025), and 'Annual Day' (Published on: 12.04.2025). Each circular has a right-pointing arrow.

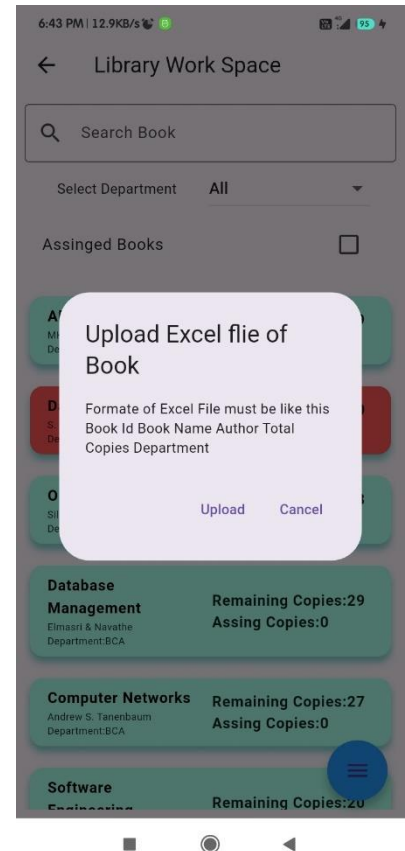
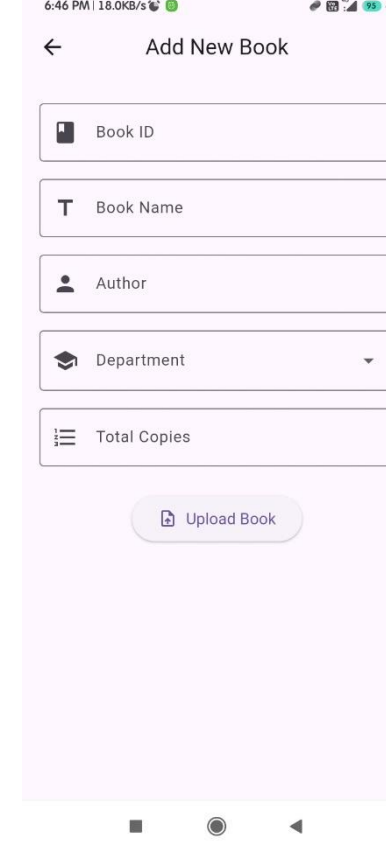
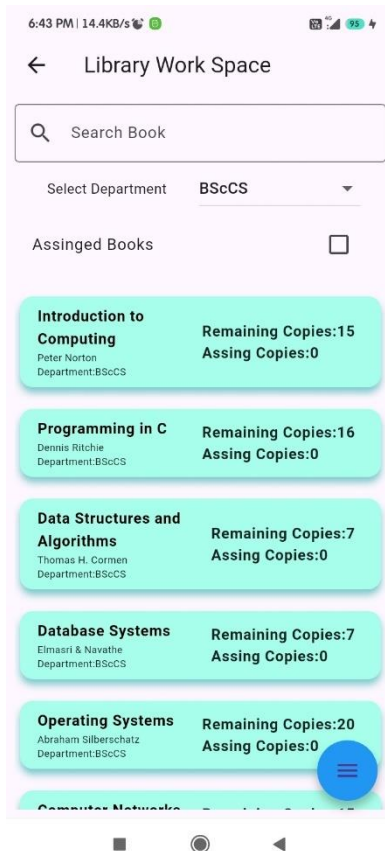
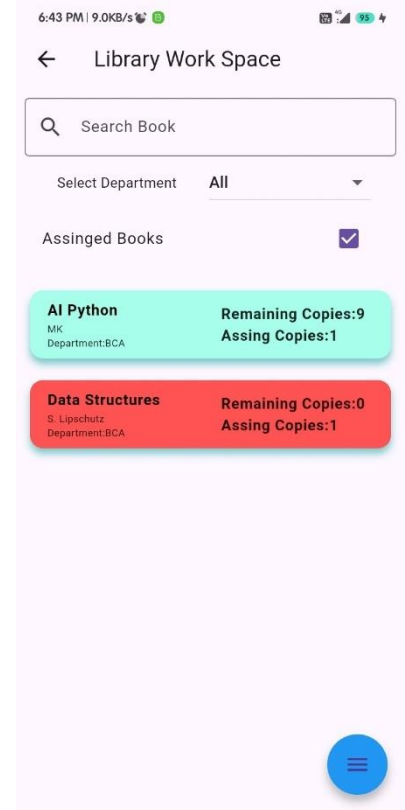
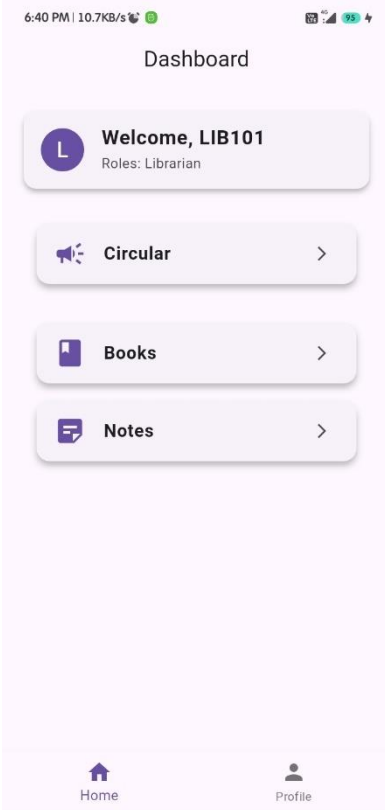
The screenshot shows a web browser window with the URL localhost:47638. The page title is 'Circular Details'. Below the title is the NCSC logo with the motto 'विज्ञानं यज्ञं नन्दते'. Below the logo is the college name 'NARMADA COLLEGE OF SCIENCE & COMMERCE' and address 'Zadeshwar, Bharuch(Gujarat) 392011'. The date is 'Date: 06.04.2025'. The title of the circular is 'Sports Day'. The main text reads: 'To all students and faculty, please be informed that our college will be hosting a Sports Day event on 2/4/25 at 10 AM in the College, featuring various sports and activities to promote fitness and camaraderie. Subject: College Sports Day To promote physical fitness and a healthy lifestyle among students and faculty. To foster a sense of camaraderie and teamwork. To provide a platform for students to showcase their athletic abilities. All students and faculty are encouraged to participate in the events. Students interested in competing in specific events are requested to register with the Sports Department. We look forward to a fun and successful Sports Day!'.







NCSC : COLLEGE MANAGEMENT SYSTEM



6:43 PM | 8.8KB/s

← Edit & Upload Data

Name	Author
Introduction to Computing	Peter I
Programming in C	Dennis
Data Structures and Algorithms	Thoma
Database Systems	Elmas
Operating Systems	Abraha
Computer Networks	Andrei
Artificial Intelligence	Stuart
Machine Learning	Tom M
Software Engineering	Ian So
Web Technologies	Jon D
Computer Architecture	John L
Digital Logic Design	Mo
Python for Data Science	Jake V

6:43 PM | 12.0KB/s

← Edit & Upload Data

	Copies	Dept
orton	15	BScCS
itchie	16	BScCS
H. Cormen	7	BScCS
& Navathe	7	BScCS
n Silberschatz	20	BScCS
S. Tanenbaum	15	BScCS
Jssell	11	BScCS
Mitchell	15	BScCS
ermerville	7	BScCS
kett	9	BScCS
hennessy	10	BScCS
s Mano	19	BScCS
iderPlas	20	BScCS

6:44 PM | 8.6KB/s

← Book Details

Operating Systems

Silberschatz
Department: BCA

0 Copies Assigned of this Book Currently

6:44 PM | 9.0KB/s

← Book Details

AI Python

MK
Department: BCA

Update Book Details

Book Name
AI Python

Author
MK

Available Copies
9

Cancel Update

6:43 PM | 9.0KB/s

← Book Details

AI Python

MK
Department: BCA

List of Book Assigned Students

N Uvesh
Due: 2025-04-22

7:22 PM | 735KB/s

← Book Details

Operating Systems

Silberschatz
Department: BCA

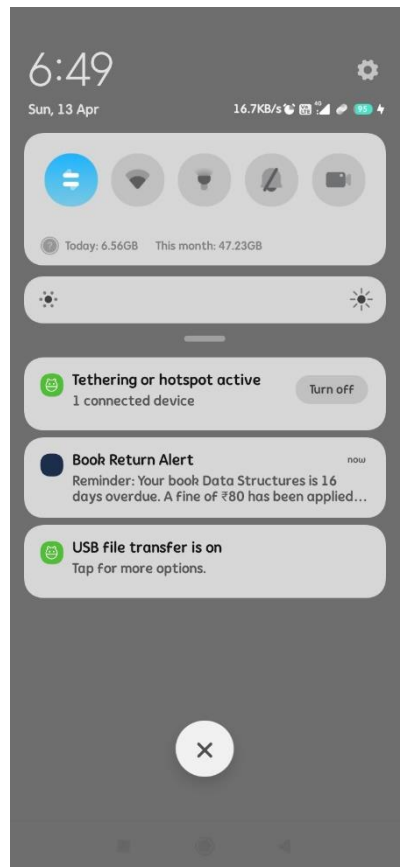
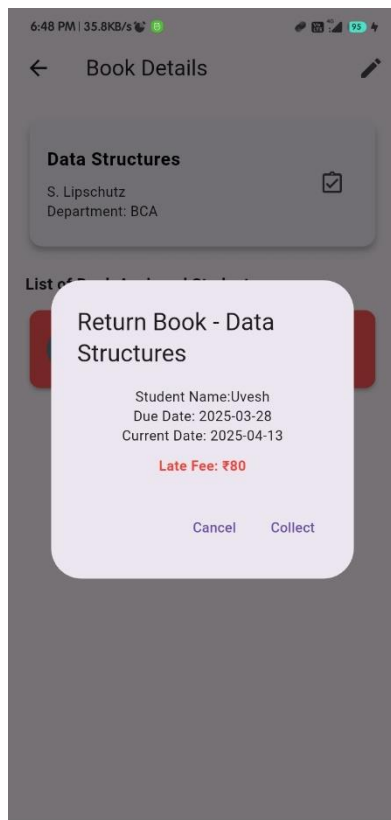
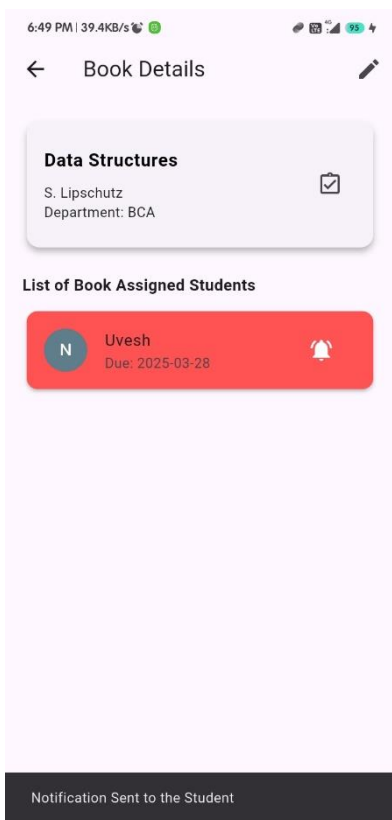
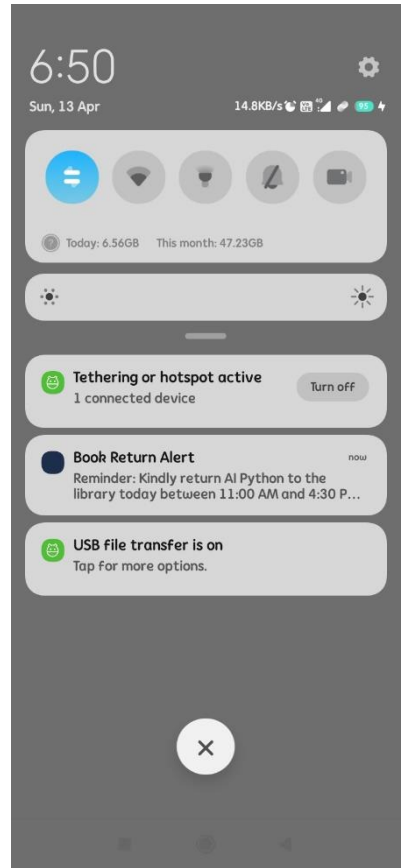
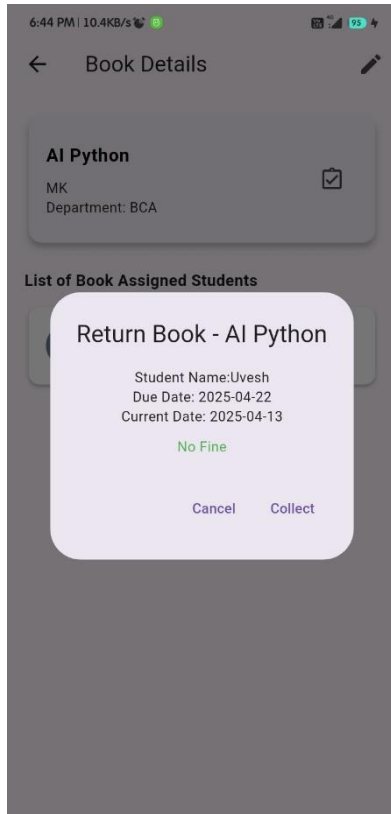
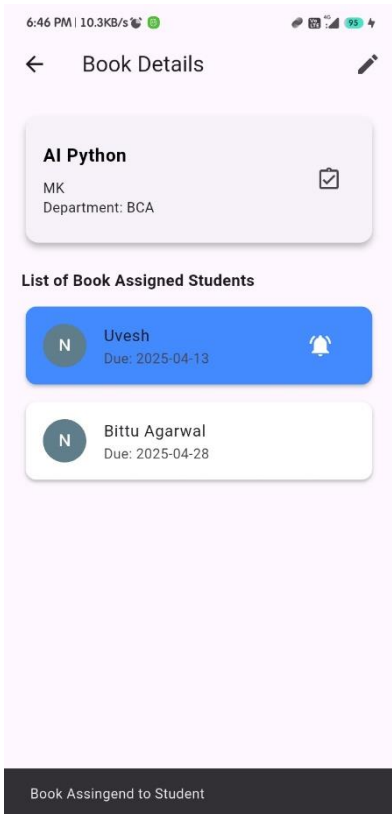
0 Copies Assigned of this Book Currently

Assign Book

Student ID


Due Date: 2025-04-28

Assign Cancel



7:26 PM | 11.5KB/s

Welcome, Uvesh!
Let's get started!




- Query
- Timetable
- Announcement
- Department
- Internal Marks
- Assignment
- Requests
- Test
- About College
- Fees Portal
- Library
- About University

Update Home Profile

7:26 PM | 33.0KB/s

Student Profile



Uvesh

BCA

Semester: 5

usmansuri794@gmail.com

Logout

Update Home Profile

7:26 PM | 11.8KB/s

Event Calendar

April 2025 (2 weeks)

Sun	Mon	Tue	Wed	Thu	Fri	Sat
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	1	2	3

+ Create Event

Events on 2025-04-07

- Title: Exam
- Description: External Exam
- From Uvesh Mansuri to student

Update Home Profile

7:33 PM | 11.4KB/s

Query Section

- Department Query
- Lab Query

Update Home Profile

7:33 PM | 11.8KB/s

Your Queries

- Test test

+ (Add Query)

Update Home Profile

7:33 PM | 11.9KB/s

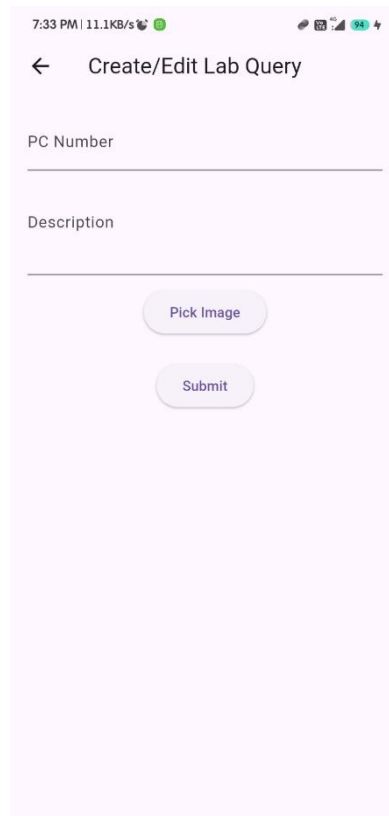
Create Query

Subject

Description

Submit

Update Home Profile



7:34 PM 11.0KB/s

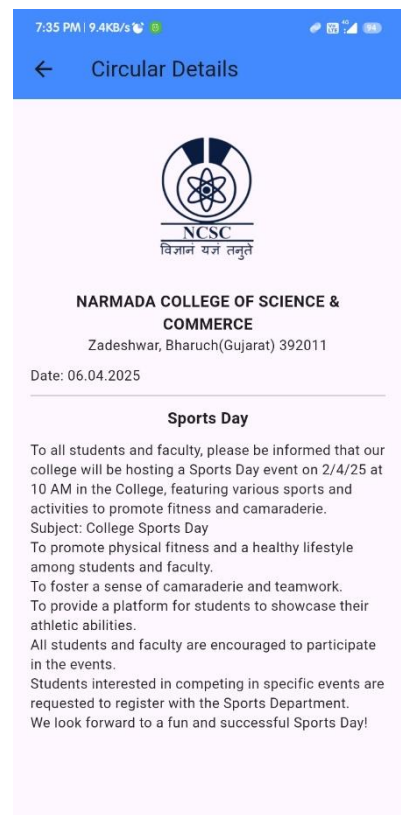
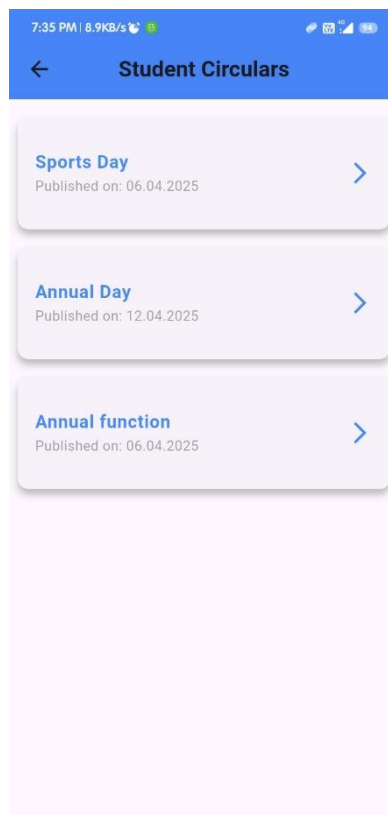
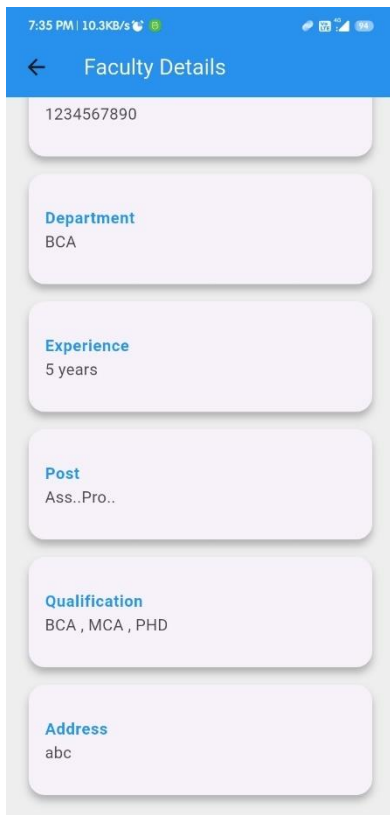
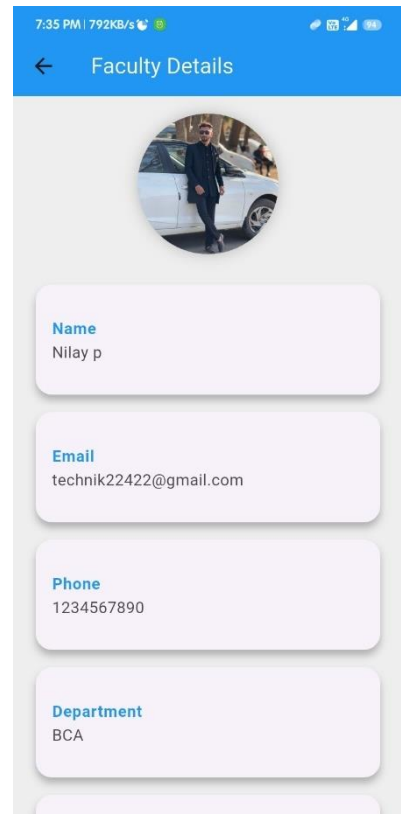
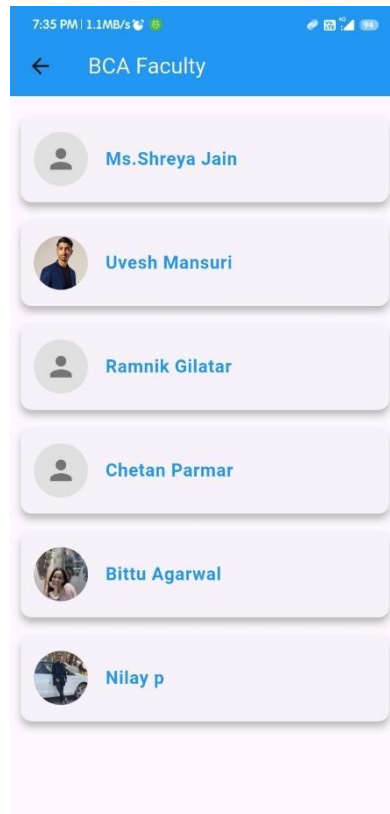
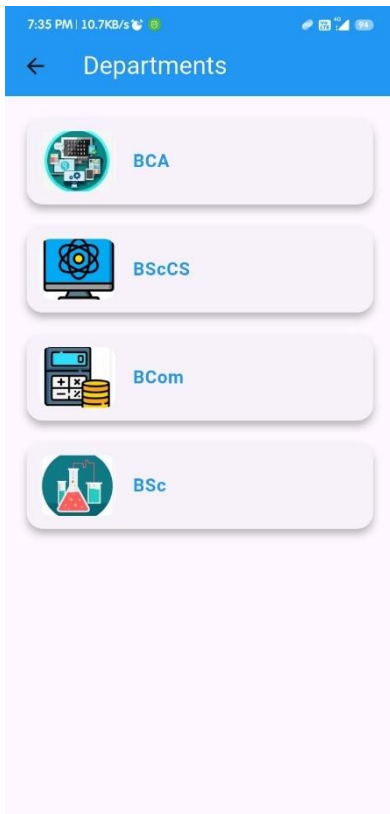
← Timetable

Time Slot	Monday	Tuesday	Wednesday	Thursday	Friday
11:00 - 12:00	AMC, Bittu Agarwal	ASP NET, Ms.Shreya Jain	ASP NET, Ms.Shreya Jain	Unix, Nilay p	AMC, Bittu Agarwal
12:00 - 13:00	WFS, Uvesh Mansuri	WFS, Bittu Agarwal	AMC, Ms.Shreya Jain	ASP NET, Ms.Shreya Jain	Unix, Nilay p
13:00 - 13:30	break	break	break	break	break
				AMC, Bittu	ASP NET,

7:34 PM 8.6KB/s

← Timetable

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
AMC, Bittu Agarwal	ASP NET, Ms.Shreya Jain	ASP NET, Ms.Shreya Jain	Unix, Nilay p	AMC, Bittu Agarwal	free
WFS, Uvesh Mansuri	WFS, Bittu Agarwal	AMC, Ms.Shreya Jain	ASP NET, Ms.Shreya Jain	Unix, Nilay p	WFS, Bittu Agarwal
break	break	break	break	break	break
			AMC, Bittu	ASP NET,	



7:35 PM | 10.2KB/s

← Assignments

- Ass2
Subject:Unix
Faculty:Nilay p
Last Date: 2025-04-16
- Ass1
Subject:Unix
Faculty:Nilay p
Last Date: 2025-04-07
- ass1
Subject:Unix
Faculty:Ms.Shreya Jain
Last Date: 2025-03-31
- Assignment 1
Subject:WFS
Faculty:Uvesh Mansuri
Last Date: 2025-03-17
- Assignment 2
Subject:WFS
Faculty:Uvesh Mansuri
Last Date: 2025-04-07
- assignment 2
Subject:AMC
Faculty:Bittu Agarwal
Last Date: 2025-04-09
- 1 st Assignment
Subject:AMC
Faculty:Bittu Agarwal

7:35 PM | 1.0MB/s

← Internal Marks

5

Total Marks:53

Subject	Marks
AMC	23
WFS	30

7:36 PM | 10.3KB/s

← Requests

- Bonafide
Requested on: 2025-04-06
- Train Pass
Requested on: 2025-04-07

Request a Pass

Select a pass ▾

Cancel Request

7:36 PM | 10.3KB/s

← Requests

- Bonafide
Requested on: 2025-04-06
- Train Pass
Requested on: 2025-04-07

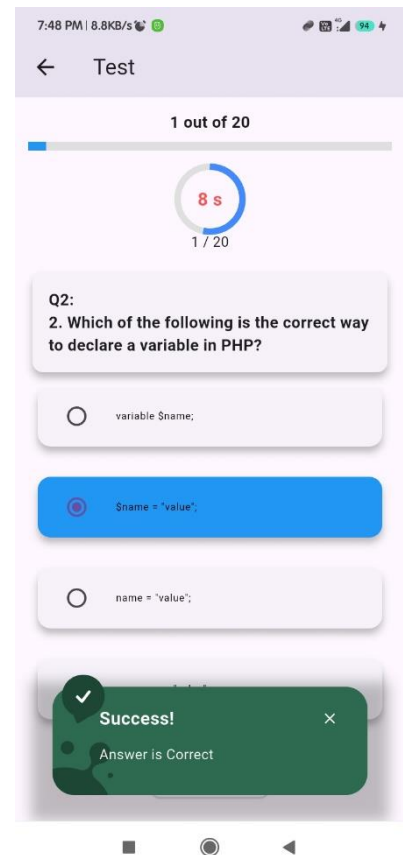
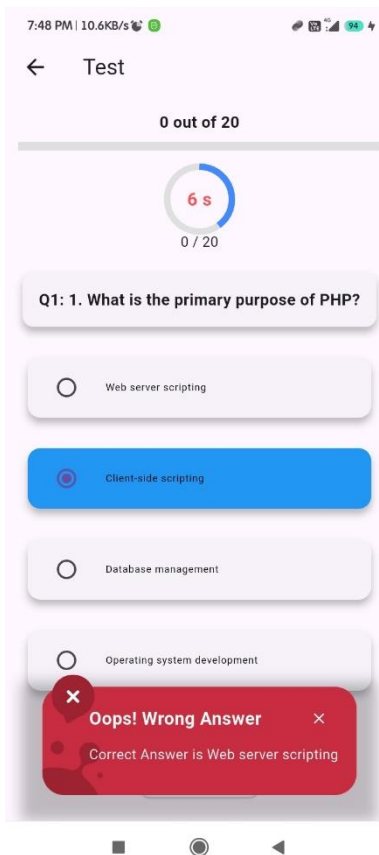
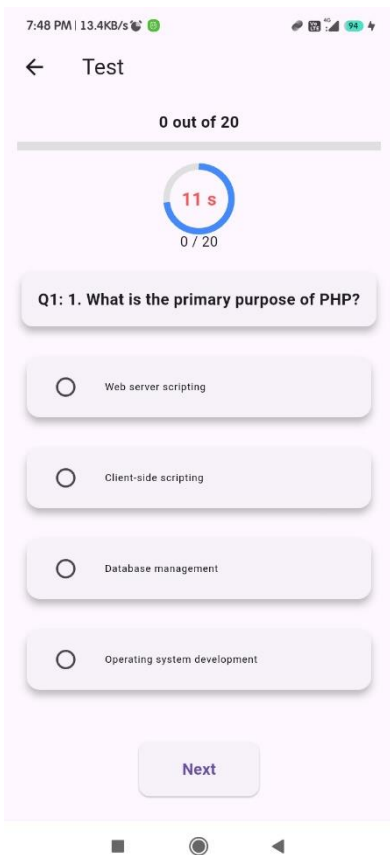
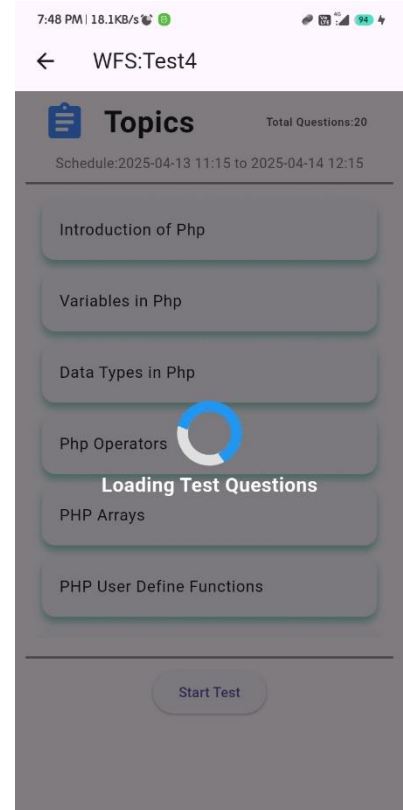
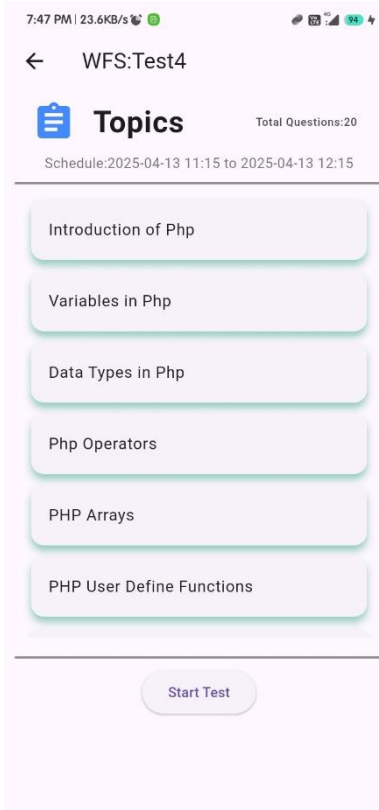
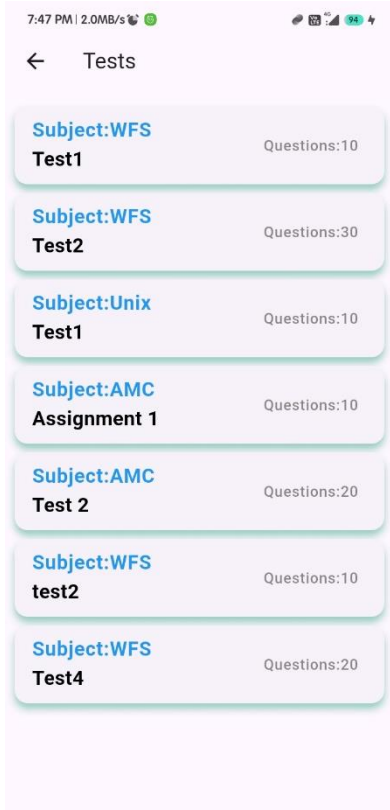
Request a Pass

- Bus Pass
- Bonafide
- Train Pass

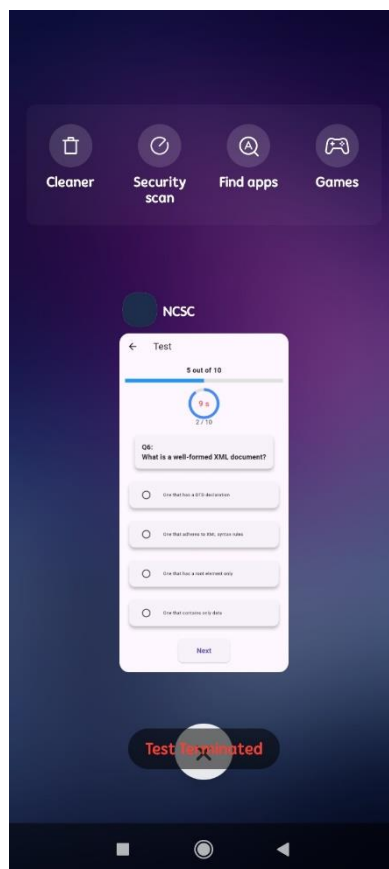
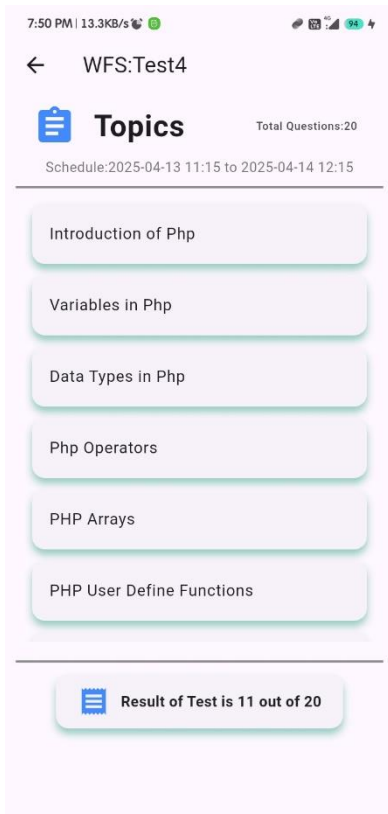
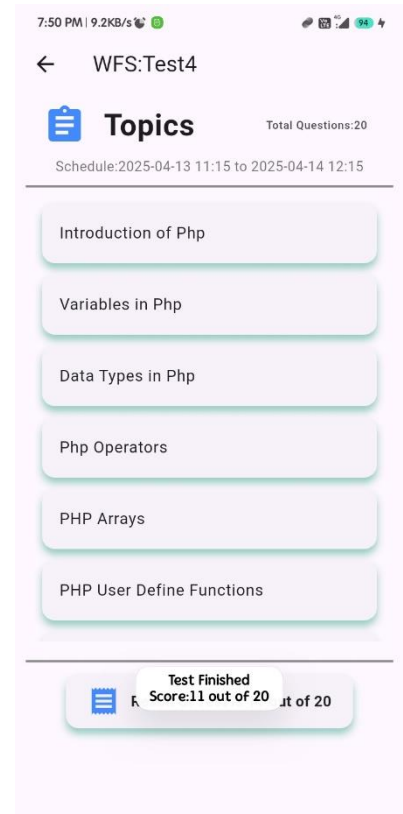
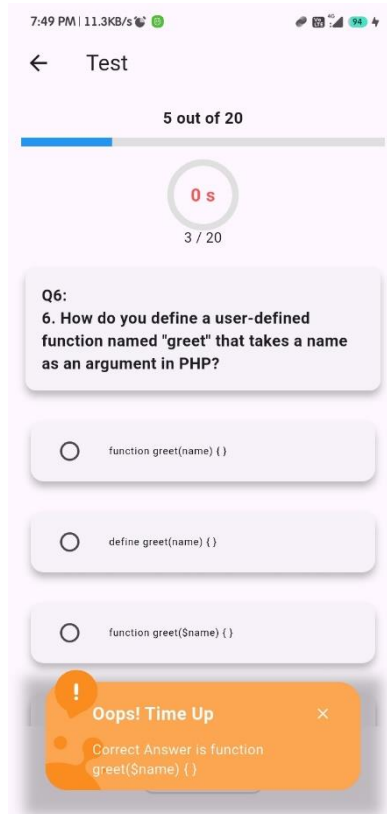
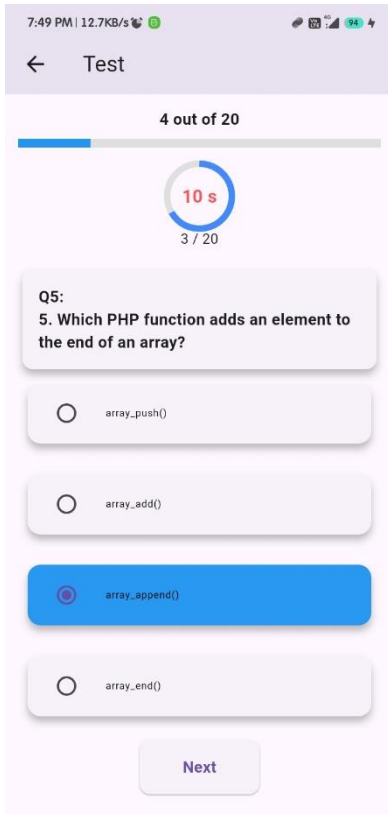
7:36 PM | 146KB/s

← Requests

- Bonafide
Requested on: 2025-04-06
- Train Pass
Requested on: 2025-04-07



NCSC : COLLAGE MANAGEMENT SYSTEM



9:15 PM | 10.4KB/s

← About College



Narmada College of Science and Commerce
Established in 1985

B.Sc. in Chemistry, Computer Science, and Electronics; B.Com.; BCA; BBA; M.Sc. in Chemistry; and M.Com. in Financial Accounting and Marketing. These programs are designed to equip students with both theoretical knowledge and practical skills.

Campus and Facilities


The college campus is equipped with modern facilities, including well-equipped laboratories, a comprehensive library, and amenities that support both academic and extracurricular activities, fostering a holistic learning environment.

Best Practices

NCSC emphasizes the use of Information and Communication Technology (ICT) in teaching, learning, and evaluation processes. The institution also promotes cashless transactions, aligning with the Digital India initiative, and has conducted awareness

9:15 PM | 76.8KB/s

← About College



Narmada College of Science and Commerce
Established in 1985

Overview


Narmada College of Science and Commerce (NCSC), located in Zadeshwar, Bharuch, is renowned for imparting quality education in English medium. Affiliated with Veer Narmad South Gujarat University, the college offers various undergraduate and postgraduate programs in science and commerce streams.

Academic Programs

NCSC provides a range of courses, including B.Sc. in Chemistry, Computer Science, and Electronics; B.Com.; BCA; BBA; M.Sc. in Chemistry; and M.Com. in Financial Accounting and Marketing. These programs are designed to equip students with both theoretical knowledge and practical skills.

9:15 PM | 8.6KB/s

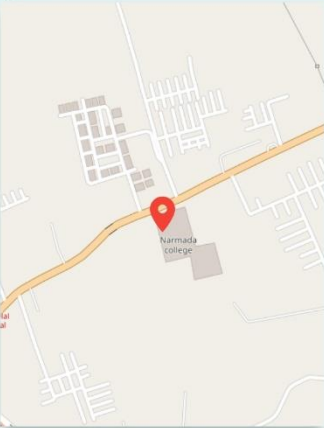
← About College



Narmada College of Science and Commerce
Established in 1985

Contact Us

+91 63543 99352
principal@narmadacollege.ac.in
Location



9:16 PM | 10.4KB/s

← NCSC Library

Search Book

AI Python MK Department:BCA	Remaining Copies:8 Assing Copies:2
Data Structures S. Lipschutz Department:BCA	Remaining Copies:0 Assing Copies:1
Operating Systems Silberschatz Department:BCA	Remaining Copies:23 Assing Copies:0
Database Management Elmasri & Navathe Department:BCA	Remaining Copies:29 Assing Copies:0
Computer Networks Andrew S. Tanenbaum Department:BCA	Remaining Copies:27 Assing Copies:0
Software Engineering Ian Sommerville Department:BCA	Remaining Copies:20 Assing Copies:0
Artificial Intelligence Stuart Russell Department:BCA	Remaining Copies:10 Assing Copies:0

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← NCSC Library

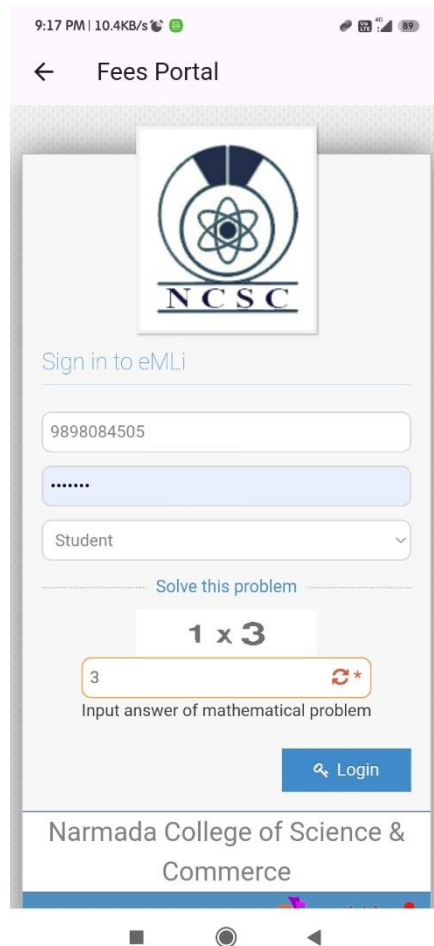
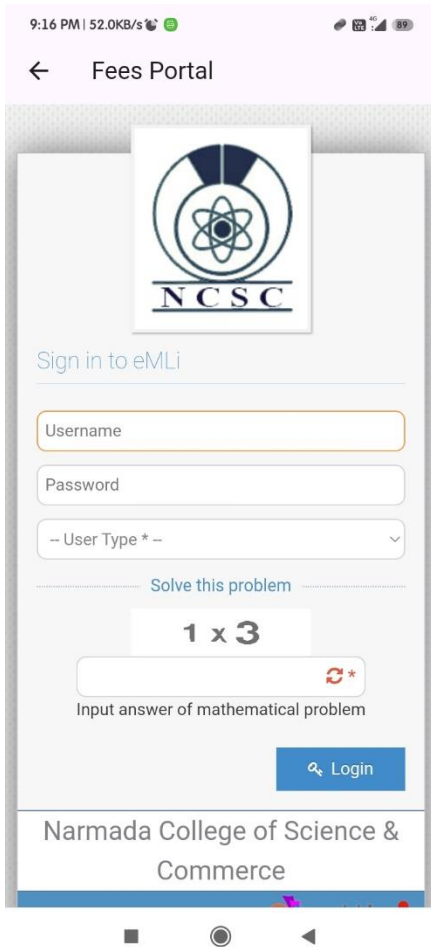
Search Book

pyt

AI Python MK Department:BCA	Remaining Copies:8 Assing Copies:2
Python Programming Mark Lutz Department:BCA	Remaining Copies:19 Assing Copies:0
Python for Data Science Jake VanderPlas Department:BSOCS	Remaining Copies:20 Assing Copies:0




pyt python pyth





9:17 PM 9.8KB/s

← Fees Portal




Dashboard Control Panel

Home > Dashboard

Last Updated on 11-Feb-2017 18:42:04




Programme: B.C.A Year/Sem: 6 Session: 2024-25




Fees collection closed on date 18-12-2024




  

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
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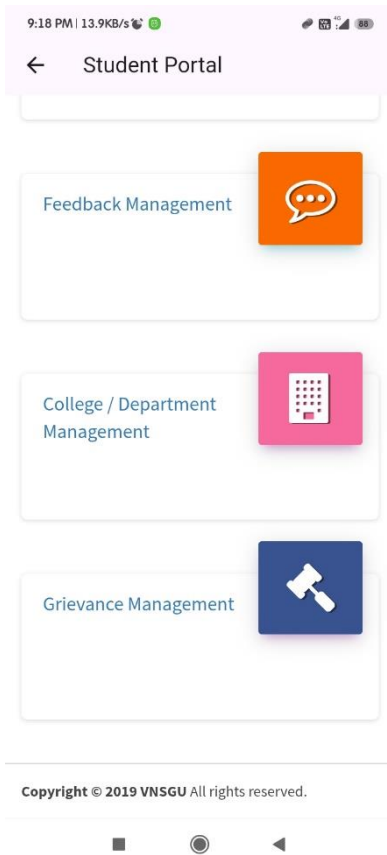
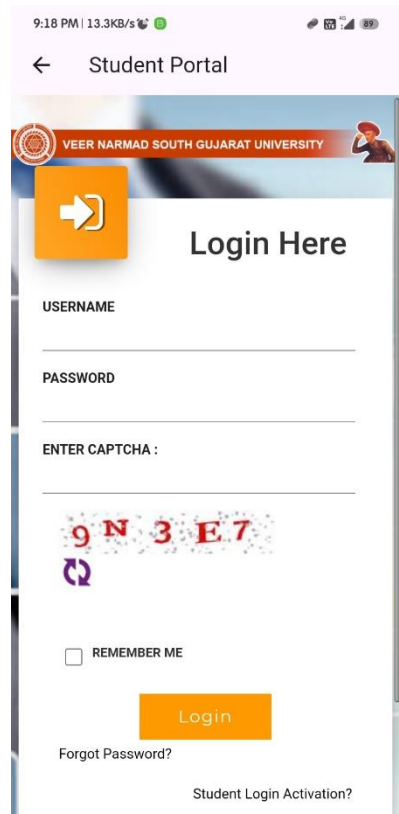
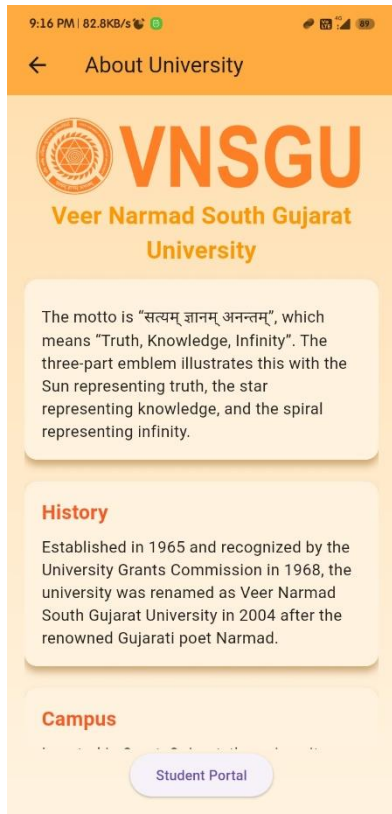
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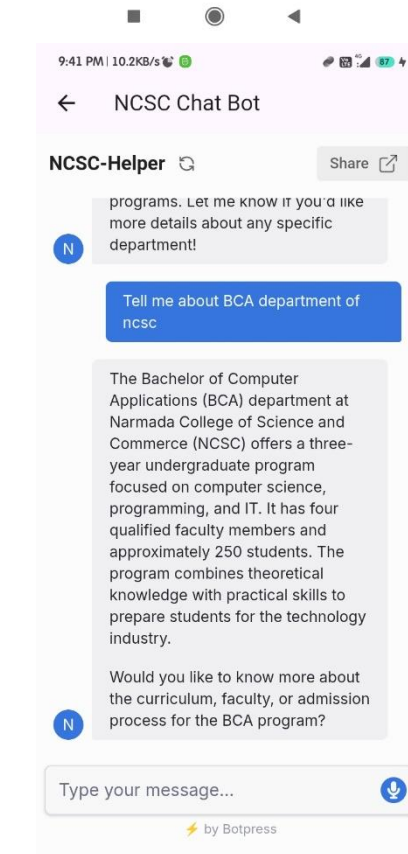
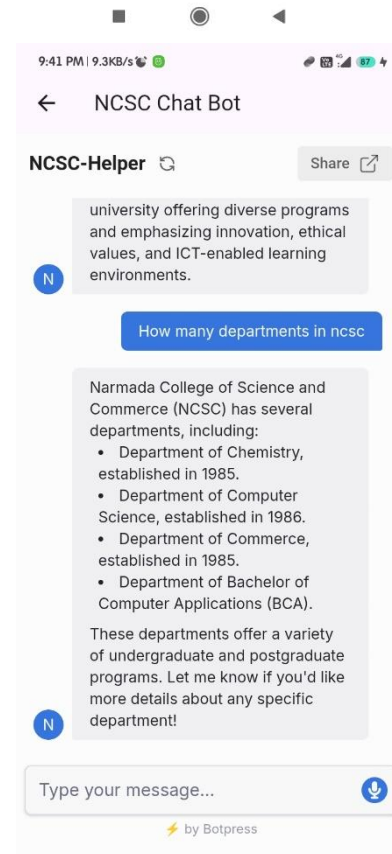
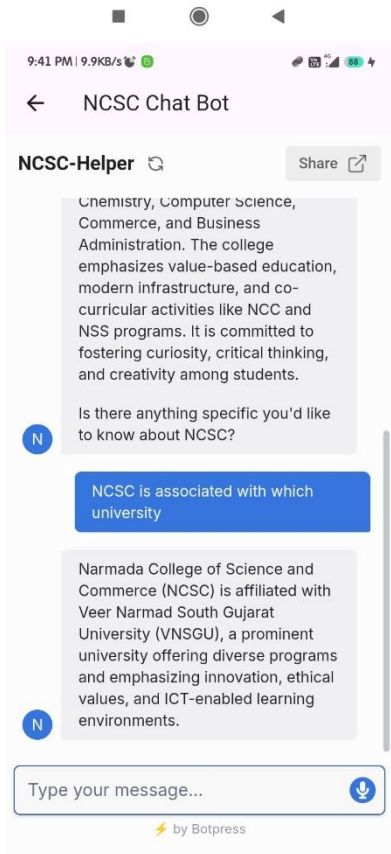
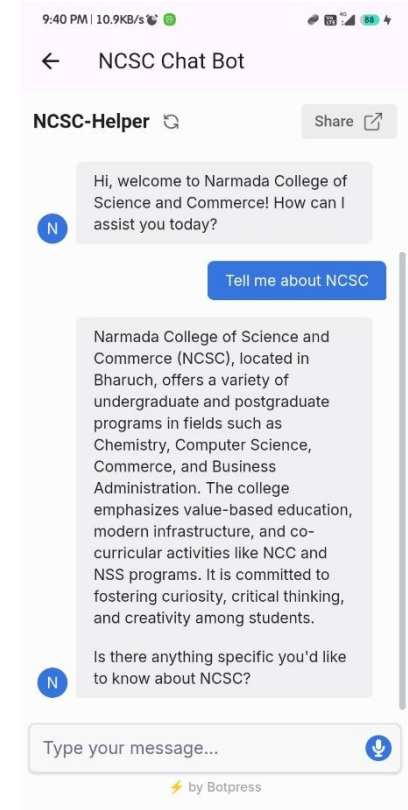
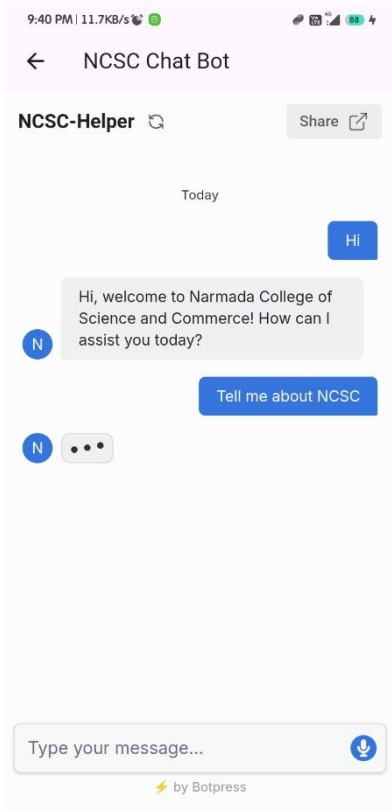
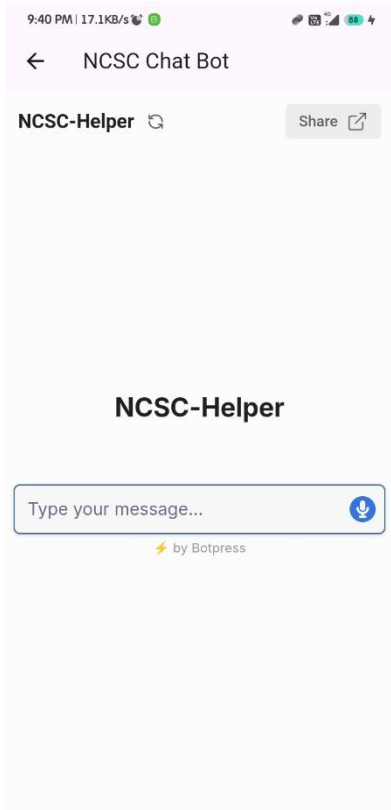
  

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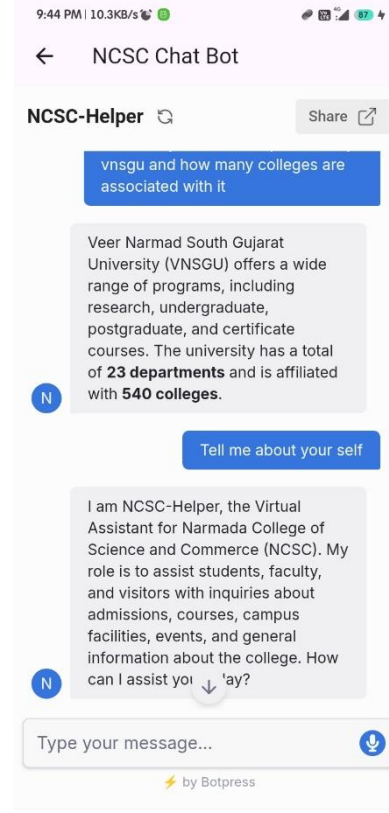
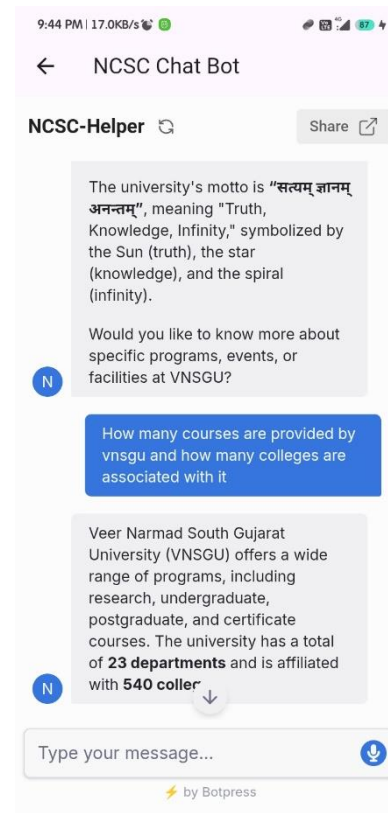
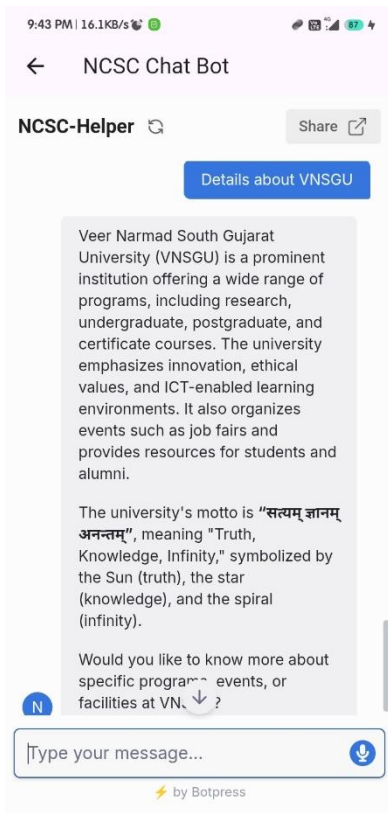
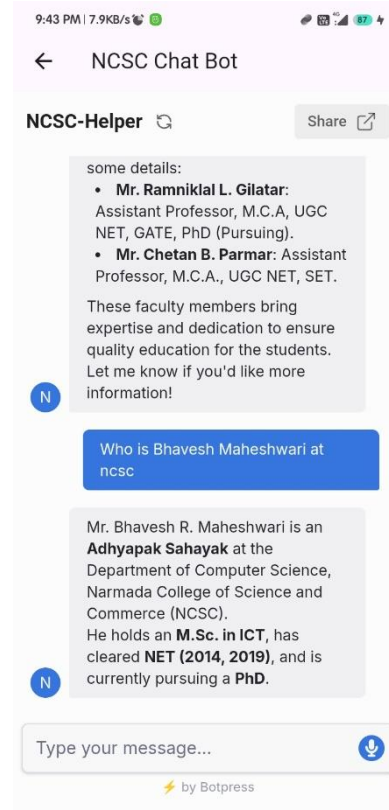
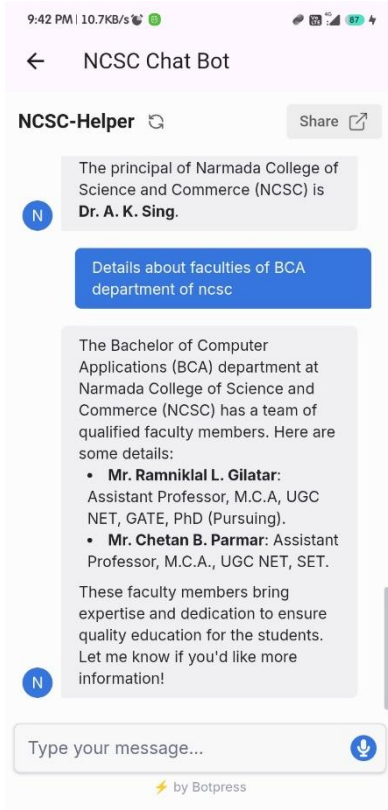
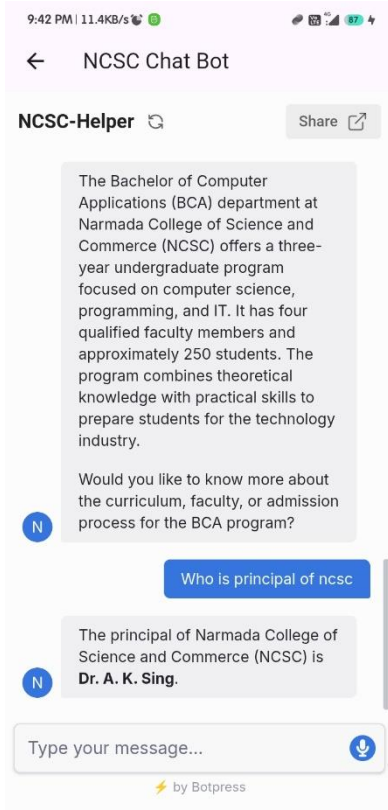
  



NCSC : COLLAGE MANAGEMENT SYSTEM



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Conclusion

A **NCSC College App** is a comprehensive software solution designed to streamline various administrative and academic processes within a college or educational institution. This App automate administrative tasks such as student enrollment, fee management, staff payroll, and inventory management. This automation reduces manual efforts and paperwork, thereby improving efficiency and accuracy.

The App manages academic activities such as course scheduling, examination management, grading, and attendance tracking. It helps in organizing academic calendars, assigning courses to faculty, and monitoring student progress.

NCSC College App maintain comprehensive databases of student information, including personal details, academic records, attendance, and disciplinary records. This centralized repository enables easy access to student data and supports informed decision-making.

References

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