

# ONLINE RESULTS PORTAL

A

*Project Report Submitted in Partial fulfilment of the Requirement for the  
Award of the Degree of*

**BACHELOR OF TECHNOLOGY**

**IN**

**COMPUTER SCIENCE AND ENGINEERING**

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**KADAPA – 516 005 (A.P.)**

**2023- 2024**

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CERTIFICATE

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(AUTONOMOUS), Kadapa in partial fulfilment of the requirements for the award of the degree of **“BACHELOR OF TECHNOLOGY”** in **“COMPUTER SCIENCE AND ENGINEERING”** is a bonafide record of the project work carried out by them under our supervision during the period 2023-2024.

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This is a Record of Bonafide work carried out by me and the results embodied in this Project Report have not been reproduced or copied from any source. The results embodied in this Project Report have not submitted to any other University or Institute for the Award of any other Degree or Diploma.

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# **ABSTRACT**

## ABSTRACT

The proposed project aims to develop a user-friendly College Results Management System. This system seeks to automate and streamline result-related tasks, replacing manual methods with a digital solution. The implementation of this system is expected to improve efficiency, accuracy, and accessibility in managing and analyzing student results within the educational institution. In the Software we can register as a user and user has of three types, student, faculty and administrator. Administrator has the power to add new user and can edit and delete a user. Faculty has rights to analyze the results of students. A student can login as user and can see their results.

The system ensures the verification and validation of result data for accuracy and consistency, alongside the efficient management of result data archives and the implementation of a robust backup system. For students, the system facilitates login through unique user IDs and passwords, providing them with personalized access to their individual results. Faculty members, upon login using their credentials, gain access to student results, enabling them to conduct individual student analyses and review merit lists organized by department and subject. This comprehensive approach ensures a seamless and integrated experience for all stakeholders involved in the academic evaluation process.

This System not only meets the immediate needs of result processing but also lays the foundation for continuous improvement and adaptability in the evolving landscape of academic evaluation. The user-centric design and robust architecture make this system a valuable asset for educational institutions striving for excellence in result management and analysis.

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## **LIST OF ABBREVIATIONS**

|       |                                    |
|-------|------------------------------------|
| HTML  | Hyper Text Markup Language         |
| CSS   | Cascading Style Sheets             |
| DHTML | Dynamic Hyper Text Markup Language |
| XML   | Extensible Markup Language         |
| SQL   | Structured Query Language          |
| PHP   | Hypertext Preprocessor             |
| SMTP  | Simple Mail Transfer Protocol      |
| HTTPS | Hypertext Transfer Protocol Secure |
| UML   | Unified Modeling Language          |
| FTP   | File Transfer Protocol             |

# **CHAPTER 1**

## **INTRODUCTION**

# CHAPTER 1

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## CHAPTER 1

### 1. INTRODUCTION

#### 1.1. Introduction

In the contemporary era of digitalization, educational institutions are increasingly adopting online platforms to streamline administrative processes and enhance student experiences. One such endeavour is the development of an "Online Results Portal" aimed at revolutionizing the dissemination of academic results and performance metrics within educational institutions. This project endeavours to provide an efficient, transparent, and user-friendly platform catering to the needs of students, faculty, and administrative.

The Online Results Portal is designed to cater to the diverse needs of its users, primarily students, faculty, and administrators. Students constitute the primary beneficiaries of the portal, as it offers them seamless access to their academic results and notifications regarding failed subjects. Through a simple interface and with the use of their unique roll numbers, students can effortlessly retrieve their results, allowing for timely feedback and informed decision-making regarding their academic progress.

Faculty members, as integral stakeholders in the academic ecosystem, are provided with comprehensive tools within the portal. They gain access to aggregated performance data and statistics of students across various semester examinations. This enables faculty to analyze trends, identify areas of improvement, and provide targeted guidance and support to students, thereby fostering academic excellence.

Administrators play a pivotal role in managing the backend operations of the Online Results Portal. They are tasked with overseeing student profiles, ensuring data accuracy, uploading result files, and updating results as required. The administrative interface of the portal is equipped with robust functionalities to facilitate these tasks efficiently, thereby streamlining administrative processes and ensuring the integrity of academic records. The significance of the Online Results Portal extends beyond mere convenience. By digitizing the process of result dissemination and performance monitoring, it aims to promote transparency, accountability, and inclusivity within the educational ecosystem. Students, irrespective of their geographical location or physical accessibility, can access their results promptly, empowering them to take ownership of their academic journey.

Furthermore, the portal facilitates data-driven decision-making for faculty members and administrators, thereby fostering a culture of continuous improvement within educational institutions. By harnessing the power of technology, the Online Results Portal endeavours to

enhance the overall educational experience, promote academic success, and contribute towards the advancement of the educational landscape.

In the subsequent sections, we will delve into the technical specifications, features, and functionalities of the Online Results Portal, elucidating its architecture, user interfaces, and underlying technologies. Through a comprehensive exploration, we aim to provide a holistic understanding of the project, its objectives, and its potential impact on the educational ecosystem.

### **1.2. Domain Description about the area of project:**

Our Educational Technology (EdTech) web application development venture is dedicated to revolutionizing the management of student results and enhancing access to critical academic data. Designed with a clear focus on facilitating seamless interaction between students, faculty, and administrators, our system aims to optimize accessibility and effectiveness in handling educational data.

With a comprehensive suite of features, our platform enables users to effortlessly access results, performance metrics, and statistics pertinent to their academic journey. Whether it's students seeking timely feedback or faculty members analysing performance trends, our system provides a centralized hub for data retrieval and analysis.

Driven by a commitment to efficiency, our platform endeavours to improve overall administrative processes within educational institutions. By streamlining tasks such as managing student profiles, uploading result files, and updating records, we aim to enhance the efficiency and accuracy of academic data management. Furthermore, our EdTech solution prioritizes the enhancement of student experience within the educational ecosystem. Through intuitive interfaces and personalized dashboards, students can gain valuable insights into their academic progress, empowering them to make informed decisions about educational journey.

By leveraging technology to foster transparency, accountability, and inclusivity, our platform seeks to redefine the educational landscape. With a vision of creating a more equitable and student-centric learning environment, we are committed to driving positive change within the educational sector through innovation and excellence in EdTech development.

### **1.3. Problem Definition**

While our Educational Technology (EdTech) web application lays a strong foundation for managing student results efficiently and facilitating access to academic data, we acknowledge the need for further enhancements to meet the diverse needs of both students and faculty. Recognizing the limitations in the current iteration of the system, we are committed to

expanding its feature set to encompass a broader range of functionalities, thereby enriching the user experience for both students and faculty members.

For students, who are the primary beneficiaries of the system, we understand that mere access to results using roll numbers may not suffice. Therefore, we plan to introduce additional functionalities aimed at providing a more holistic and enriching experience. This includes implementing statistical analysis tools that enable students to delve deeper into their performance metrics, identify areas of strength and weakness, and track their progress over time. Additionally, we aim to incorporate notifications of failed subjects, alerting students in real-time about any academic challenges they may face and providing them with the necessary support and resources to overcome them.

Furthermore, we recognize the importance of extending functionalities to facilitate faculty analysis and support. Faculty members play a crucial role in guiding and mentoring students, and providing them with access to comprehensive analytical tools can greatly enhance their ability to monitor student progress and provide targeted support. Therefore, we plan to introduce features that enable faculty members to conduct in-depth analysis of student performance, track trends across cohorts, and identify areas where intervention may be required to enhance student learning outcomes. By bridging these gaps and introducing new functionalities, our aim is to elevate the overall effectiveness and utility of the system for both students and faculty members. Through continuous innovation and iterative development, we are committed to delivering a robust and feature-rich EdTech solution that meets the evolving needs of educational institutions and fosters a culture of excellence in teaching and learning.

### **1.4. Proposed Solution:**

In our quest to provide a comprehensive solution for managing academic data within educational institutions, we propose the introduction of a dynamic and interactive student dashboard. This dashboard will serve as a central hub for students, offering a wide array of functionalities aimed at enhancing their academic experience and facilitating informed decision-making. Below are the key components and features of the proposed student dashboard

#### **➤ Comprehensive Result analysis:**

The student dashboard will provide students with access to detailed result analysis, allowing them to delve deeper into their performance across various subjects and assessments. Through interactive charts, graphs, and visualizations, students can gain valuable insights into their strengths, weaknesses, and areas for improvement.

### ➤ **Notifications for Failed Subjects:**

One of the critical features of the student dashboard will be the provision of real-time notifications for failed subjects. Students will receive immediate alerts regarding any failed subjects, enabling them to take timely action and seek necessary support from faculty or academic advisors.

### ➤ **Access to Historical data:**

The student dashboard will grant students access to their historical academic data, including previous semester results, assessment scores, and academic achievements. By examining their academic journey over time, students can track their progress, identify trends, and set informed goals for future academic endeavours.

### ➤ **Faculty Analysis:**

In addition to student-facing functionalities, the proposed solution will also provide faculty members with access to comprehensive student performance metrics. Faculty members can view detailed analytics on student performance, including merit scores, pass/fail percentages in subjects, and overall academic progress.

### ➤ **Interactive User Interface:**

The student dashboard will feature an intuitive and user-friendly interface, designed to enhance usability and facilitate seamless navigation. Customizable dashboards will allow students to personalize their viewing preferences and prioritize the information most relevant to their academic goals.

### ➤ **Data Security and Privacy:**

Data security and privacy will be of paramount importance in the design and implementation of the student dashboard. Stringent measures will be put in place to ensure the confidentiality and integrity of student data, adhering to industry best practices and compliance standards.

### ➤ **Continuous Improvement and Feedback:**

We recognize that the introduction of the student dashboard is a continuous journey of improvement and refinement. Feedback mechanisms will be incorporated to gather insights from students and faculty, allowing us to iteratively enhance the dashboard based on user needs and preferences.

## 1.5. Objectives

- ❖ **Empowering Students Through Technology:** Our enhanced student experience focuses on leveraging technology to empower students in their academic journey. By providing a user-friendly interface and access to comprehensive academic data, we aim to facilitate

informed decision-making and promote active engagement with learning resources.

- ❖ **Personalized Learning Pathways:** Through the integration of personalized learning pathways, students can tailor their academic experience to align with their individual goals, preferences, and learning styles. The system will offer recommendations for courses, resources, and support services based on students' academic performance and interests.
- ❖ **Interactive Learning Resources:** The introduction of interactive learning resources within the platform enriches students' learning experience by offering multimedia content, simulations, and collaborative tools. This fosters active participation and deepens understanding of academic concepts.
- ❖ **Real-Time Alerts for Academic Events:** Timely notifications play a crucial role in keeping students informed about important academic events, deadlines, and updates. The system will provide real-time alerts for upcoming exams, assignment due dates, and
- ❖ academic announcements, ensuring students stay on track with their studies.
- ❖ **Notifications for Academic Progress:** In addition to event-based notifications, students will receive alerts regarding their academic progress, including notifications for failed subjects, upcoming assessments, and opportunities for academic support. This proactive approach enables early intervention and fosters a culture of academic success.
- ❖ **Streamlined Administrative Processes:** Efficient academic management is essential for the smooth operation of educational institutions. Our platform streamlines administrative processes such as result management, student enrolment, and course scheduling, reducing manual workload and improving overall efficiency.
- ❖ **Automated Data Analysis:** The system's analytical capabilities enable automated data analysis, providing insights into student performance trends, course effectiveness, and areas for improvement. This data-driven approach informs decision-making and facilitates continuous improvement in academic programs.
- ❖ **Comprehensive Performance Metrics:** Faculty members gain access to comprehensive performance metrics, including student attendance, assessment scores, and course completion rates. This enables faculty to track student progress, identify at-risk students, and provide targeted support when needed.
- ❖ **Analytics for Continuous Improvement:** The platform provides analytics tools for faculty analysis, allowing instructors to evaluate course effectiveness, identify teaching strategies that resonate with students, and make data-driven decisions to enhance the learning outcomes.

### 1.6. Organization of the Project report

**1. Introduction:** The Online Results Portal project aims to revolutionize the dissemination of academic results and performance metrics within educational institutions. This report provides an overview of the project organization, outlining the structure, roles, and responsibilities of the team members involved.

#### 2. Project Team:

- **Project Manager:** Responsible for overall project planning, coordination, and monitoring of progress.
- **Software Developers:** Design, develop, and implement the portal's functionalities according to specified requirements.
- **Quality Assurance/Testers:** Conduct thorough testing to ensure the portal functions accurately and meets quality standards.
- **UI/UX Designers:** Design the user interface to ensure optimal user experience for students, faculty, and administrators.
- **Database Administrators:** Manage the database infrastructure, ensuring data integrity and security.
- **Technical Support:** Help and troubleshooting support to users during and after implementation.

#### 3. Roles and Responsibilities:

- **Project Manager:** Oversees project planning, resource allocation, and progress tracking. Acts as the primary point of contact for stakeholders and ensures timely delivery of milestones.
- **Software Developers:** Translate requirements into functional code, conduct testing, and
- **Quality Assurance/Testers:** Develop test cases, execute testing protocols, and document findings to ensure the portal meets quality standards and user expectations.
- **UI/UX Designers:** Create intuitive user interfaces, conduct usability testing, and iterate designs based on feedback to enhance user experience.
- **Database Administrators:** Design and optimize the database schema, implement data security measures, and ensure smooth data migration and integration.
- **Technical Support:** Provide responsive assistance to users, troubleshoot issues, and escalate complex technical challenges to the appropriate team members for resolution.

#### 4. Project Timeline:

- Planning Phase: Define project scope, objectives, and requirements (2 weeks).
- Development Phase: Implement core functionalities, conduct testing, and refine features.
- Testing Phase: Conduct comprehensive testing to identify and address any bugs or usability issues (2 weeks).
- Deployment Phase: Roll out the portal to users, provide training and support, and monitor system performance (2 weeks).
- Maintenance Phase: Address any post-deployment issues, implement updates and enhancements, and provide ongoing technical support (ongoing).

### **5. Communication and Collaboration:**

- Regular team meetings will be held to discuss project progress, address challenges, and ensure alignment with project objectives.
- Collaboration tools such as project management software, version control systems, and communication platforms will be utilized to facilitate seamless collaboration among team members.

# **CHAPTER 2**

## **LITERATURE SURVEY**



## CHAPTER 2

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## CHAPTER 2

### 2. LITERATURE SURVEY

#### 2.1. Introduction

In the realm of educational technology, the integration of online platforms to manage academic data has become increasingly prevalent. The advent of Online Results Portals represents a significant advancement in the way academic institutions disseminate student results and performance metrics. This literature survey aims to explore existing research and developments in the field of Online Results Portals, shedding light on the evolution of these platforms and their impact on student engagement, administrative efficiency, and academic outcomes.

**Evolution of Online Results Portals:** The evolution of Online Results Portals can be traced back to the early days of internet technology, where educational institutions began digitizing their result dissemination processes. Initial iterations of these portals primarily focused on providing students with access to their results through simple web interfaces. However, as technology advanced and user expectations evolved, these portals underwent significant enhancements to incorporate features such as result analysis, notifications, and interactive dashboards.

**Impact on Student Engagement:** Several studies have examined the impact of Online Results Portals on student engagement and academic performance. Research suggests that providing students with timely access to their results and performance metrics fosters a sense of accountability and ownership over their academic progress. Moreover, interactive features such as result analysis tools and personalized dashboards have been shown to enhance student motivation and facilitate self-directed learning.

**Administrative Efficiency and Faculty Empowerment:** Online Results Portals not only benefit students but also streamline administrative processes and empower faculty members. By automating result management tasks, these portals reduce administrative burden and allow faculty members to focus on more value-added activities such as student mentoring and academic support. Additionally, access to comprehensive performance metrics enables faculty members to identify at-risk students early and provide targeted interventions to improve learning outcomes.

**Challenges and Opportunities:** While Online Results Portals offer numerous benefits, they

also, present challenges such as data security concerns, user interface complexities, and issues related to system scalability. Addressing these challenges requires a multidisciplinary approach involving collaboration between educational technologists, administrators, and software developers. Furthermore, the ongoing evolution of technology presents opportunities for innovation in Online Results Portals, such as the integration of artificial intelligence and machine learning algorithms for predictive analytics and personalized learning experiences.

**Future Directions:** Looking ahead, the future of Online Results Portals holds promise for further advancements in enhancing student engagement, administrative efficiency, and academic outcomes. Future research endeavours may explore topics such as the integration of gamification elements to incentivize student participation, the development of mobile applications for on-the-go access to results, and the implementation of blockchain technology for secure result verification and authentication.

### 2.2. Related Work

Several research studies and projects have contributed to the development and enhancement of student results management systems. Below are some key examples of related work in this domain:

1. **University Management Systems (UMS):** Many universities and educational institutions have implemented their own University Management Systems, which often include modules for student results management. These systems typically allow students to access their results, course schedules, and academic records online. Examples include systems like Blackboard, Moodle, and Canvas, which offer comprehensive features for managing student data and results.
2. **Open Source Solutions:** There are various open-source solutions available for student results management, such as Overeducate.
3. These platforms provide customizable modules for managing student records, exam results, and academic performance. Open-source solutions offer flexibility and scalability, making them suitable for institutions of different sizes and budgets.
4. **Commercial Software Solutions:** Several commercial software solutions specialize in student information systems and results management. Examples include Ellucian Banner and PowerSchool, which offer comprehensive features for managing student data, including results, attendance, and course enrolment. These solutions often integrate with other administrative systems within educational institutions.

5. **Research Projects:** Academic research projects have also explored innovative approaches to student results management. For example, studies have investigated the use of data analytics and predictive modeling to identify at-risk students and provide targeted interventions to improve academic outcomes. Other research projects have focused on developing mobile applications for students to access their results and receive personalized notifications.
6. **Integration of Learning Management Systems (LMS):** Many institutions integrate their Learning Management Systems (LMS) with student results management systems to provide a seamless experience for students and faculty. LMS platforms like Moodle and Canvas often include modules for managing assessments and grading, which can be integrated with student results management systems to provide a centralized.

**Government Initiatives:** In some countries, government initiatives have been launched to develop centralized systems for student results management across educational institutions. These initiatives aim to standardize result management processes, improve data accuracy, and enhance transparency in education. Examples include national examination boards and online portals for accessing exam results

### 2.3. Overview

The Student Results Management Project is a comprehensive endeavour aimed at modernizing and streamlining the process of managing academic results within educational institutions. This project encompasses the development of an online platform or system designed to efficiently handle student results, performance metrics, and related data. The overarching goal is to enhance accessibility, accuracy, and effectiveness in managing student academic records while also improving the overall student experience and admin efficiency.

#### **Key Components:**

- **Result Management System:** The core component of the project is a result management system that facilitates the storage, retrieval, and manipulation of student results. This system allows administrators to input, update, and manage result data for various academic assessments, including exams, assignments, and projects.
- **User Authentication and Access Control:** The project includes mechanisms for user authentication and access control to ensure data security and privacy. Different user roles, such as students, faculty, and administrators, have varying levels of access to the system's functionalities based on their respective roles and permissions.
- **Student Portal:** A dedicated student portal provides students with convenient access to their

- results, performance metrics, and other relevant academic information. Students can log in to the portal using their credentials and view their results for different courses, semesters, or academic periods.
- **Faculty Dashboard:** Faculty members are equipped with a dashboard or interface that grants them access to student performance data, statistics, and analytics. This allows faculty to monitor student progress, identify areas of improvement, and provide targeted support and guidance to students as needed.
- **Administrative Tools:** Administrators have access to administrative tools for managing student profiles, uploading result files, generating reports, and performing other administrative tasks. These tools streamline administrative processes and ensure the integrity and accuracy.

### **Features and Functionalities:**

- **Result Analysis:** The system provides tools for analysing student results, including statistical analysis, trend analysis, and comparison with historical data. This enables stakeholders to gain insights into student performance trends, identify patterns, and make data-driven decisions.
- **Notifications and Alerts:** The project includes mechanisms for sending notifications and alerts to students and faculty regarding important academic events, such as result publication, upcoming exams, and deadlines for submitting assignments.
- **Historical Data Access:** Students and faculty can access historical result data, allowing them to track their academic progress over time and identify areas of improvement. This historical data access enables informed decision-making and personalized learning pathways.
- **Integration with Existing Systems:** Where applicable, the project integrates with existing student information systems (SIS) or learning management systems (LMS) to ensure seamless data exchange and interoperability.

### **Benefits:**

- **Enhanced Accessibility:** Students can conveniently access their results and academic information anytime, anywhere, through the online portal.
- **Improved Efficiency:** Administrative processes related to result management are streamlined, reducing manual effort and administrative overhead.
- **Data-Driven Decision-Making:** Stakeholders can make informed decisions based on real-time performance data and analytics.
- **Enhanced Student Experience:** The project aims to improve the overall student experience by providing timely access to results, personalized feedback, and academic support.

# **CHAPTER 3**

## **SYSTEM ANALYSIS**

## **CHAPTER 3**

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## CHAPTER 3

### 3. SYSTEM ANALYSIS

#### 3.1 Introduction

System analysis is a fundamental process in the field of information technology and business management, critical for understanding, improving, and innovating complex systems. It involves a systematic investigation of existing systems, their components, and processes to identify opportunities for enhancement or development of new systems to meet specific objectives. The process of system analysis typically involves the following steps

- 1. Understanding the Current System:** System analysts gather information about the existing system, including its structure, components, processes, and interactions. This phase often involves interviews, surveys, observations, and documentation review to gain insights into how the system operates and where opportunities for improvement exist.
- 2. Identifying Requirements:** System analysts work closely with stakeholders to identify and prioritize the requirements of the system. This includes functional requirements (what the system should do), non-functional requirements (performance, security, usability, etc.), and constraints (budget, time, resources, etc.).
- 3. Analyzing Alternatives:** System analysts evaluate different options, considering factors like feasibility, costs, benefits, and risks to enhance the system, such as process redesign or adoption of new technologies.
- 4. Designing Solutions:** Once a preferred alternative is selected, system analysts develop detailed designs and specifications for the proposed changes or new system. This may involve creating prototypes, data models, user interfaces, and system architecture diagrams to guide implementation.
- 5. Implementing and Testing:** The proposed solutions are implemented and tested to ensure they meet the defined requirements and objectives. This phase involves coding, configuration, integration, and rigorous testing to identify and resolve any issues or discrepancies.
- 6. Deployment and Evaluation:** The final solution is deployed into production, and its performance is monitored and evaluated over time. Feedback from users and stakeholders is collected to assess the effectiveness of the system and identify areas for further improvement.



### 3.2 Existing System & Disadvantages

- In the current system, students utilize a web application interface to access their academic results. Through this interface, they input their unique roll numbers to retrieve detailed information about their academic performance.
- Once the roll numbers are entered into the designated field within the web application, students can conveniently access their results.
- The system likely employs security measures to ensure data privacy. Students can view comprehensive details such as grades, marks, and possibly subject-wise performance.

#### Disadvantages

- **Difficulty in Data Analysis:** Analyzing student performance trends or identifying areas for improvement becomes challenging due to the lack of comprehensive data analysis tools or functionalities.
- **Lack of Faculty Analysis:** Faculty members are unable to assess overall class performance or identify patterns in student achievement due to the absence of tools for analyzing aggregated data.
- **No Accessibility of Historical Data:** The inability to access past academic records hinders students' ability to track their progress over time and identify trends in their performance.
- **Lack of Student Statistics:** Without access to aggregated statistics on student performance, it becomes challenging for administrators and faculty to identify patterns or trends across student cohorts and tailor support accordingly.
- **Absence of Customization Options:** The lack of customization features limits users' ability to tailor the system interface according to their preferences or specific needs, potentially resulting in a less efficient or user-friendly experience.
- **Potential Data Privacy Concerns:** Without robust data privacy measures, there is a risk of unauthorized access to sensitive student information, raising concerns about data security and confidentiality.

### 3.3 Proposed System & Advantages

- The proposed system offers a user-friendly web portal accessible to students and faculty from any internet-enabled device.
- Students can conveniently access both current and historical results, facilitating effective tracking of academic progress.
- Faculty members gain access to valuable student statistics, enabling informed decision-

making to support student success.

- The system emphasizes ease of use and accessibility, promoting a collaborative learning environment.
- Its compatibility with various devices ensures flexibility and convenience for users accessing the portal from different locations.

### **Advantages**

- **Dedicated Website or Portal:** Having a dedicated platform ensures easy access to academic results and related information for both students and faculty members, improving overall user experience and efficiency.
- **Archiving Previous Results:** Storing previous academic results enables students to track their progress over time, aiding in goal setting and academic planning, while also providing valuable data for analysis and decision-making.
- **Faculty Analysis Tools:** Providing faculty members with analysis tools enables them to assess student performance trends, identify areas for improvement, and tailor instructional strategies, enhancing the quality of education delivery.
- **Student Statistics:** Providing access to comprehensive student statistics allows faculty and administrators to gain insights into student demographics, performance patterns, and trends, facilitating informed decision-making and proactive support initiatives.
- **Time Efficiency:** With quick and easy access to academic results and analysis tools, both students and faculty can save time in retrieving and processing.

### **3.4. Software Requirements**

| ITEM             | REQUIREMENT             |
|------------------|-------------------------|
| Operating System | Windows 7+              |
| IDE              | PyCharm, XAMPP, VS Code |
| Server           | Apache 8.2.1.2          |
| Database         | My SQL                  |

|                       |                        |
|-----------------------|------------------------|
| Server-side scripting | PHP, Python            |
| Libraries Used        | NumPy, Pandas, Flask   |
| Browser               | Google Chrome, MS-Edge |

**Table.3.4.1: Software Requirements**

### 3.5. Hardware Requirements

| ITEM          | \REQUIREMENT       |
|---------------|--------------------|
| Processor     | Intel i3 and above |
| Processor RAM | 4GB                |
| Hard Disk     | 512 GB             |

**Table.3.5.1: Hardware Requirements**

### 3.6 Modules Description

The system is comprised of three essential modules: the Student Module, Faculty Module, and Admin Module. The Student Module facilitates easy access to academic results, notifications, and administrative tasks for students. The Faculty Module empowers instructors with tools for analyzing student performance, managing courses, and providing personalized feedback. Meanwhile, the Admin Module oversees system administration tasks, including user management, result uploads, and system configuration. Each module plays a vital role in ensuring efficient operation and user satisfaction within the system. Together, they create a comprehensive solution tailored to meet the needs of students, faculty, and administrators alike.

#### 3.6.1. Student Module

- Students can securely log in to the system using their registered student number as the username and their date of birth as the password.
- Once logged in, students have the ability to view their academic results, including grades,

marks, and overall performance in each subject.

- The system provides students with notifications highlighting any failed subjects, enabling them to promptly identify areas needing improvement and take necessary actions for remediation.

### **3.6.2. Faculty Module**

- Faculty members can securely log in to the system using their designated credentials, ensuring controlled access to academic data.
- Upon logging in, faculty gain access to student results, allowing them to view aggregated performance data for their respective courses or classes.
- Faculty members can review detailed information about individual student performance, including grades, marks, and overall performance across different subjects.
- The module provides faculty with the ability to generate and review merit lists based on student performance, as well as access statistical data to analyze.
- Faculty can delve into subject-wise performance data to identify areas of strength and weakness among students, enabling targeted interventions and instructional adjustments as needed.

### **3.6.3. Admin Module**

- Administrators can securely log in to the system using their designated user ID and password, ensuring restricted access to administrative functionalities.
- The admin module enables administrators to upload result files to the database, ensuring accurate and timely dissemination of student academic information.
- Administrators have the privilege to modify student results, allowing them to update results as needed, particularly during supplementary or revaluation examinations.
- Admins are responsible for regular data backup procedures to safeguard system data integrity and security. Additionally, they oversee system maintenance tasks, ensuring optimal performance and reliability.
- The module may include functionalities for managing user accounts, including creating new accounts, updating user information, and managing user roles and permissions in a system.
- Administrators have access to system configuration settings, allowing them to customize system parameters, such as result upload formats, notification settings, an access controls, to meet specific organizational requirements.

## **3.7 System Architecture**

The architecture of the Online Results Portal project typically follows a client-server architecture, where the client-side interacts with the server-side components to access and manage data. Here's an overview of how the modules - Admin, Student, and Faculty - interact within this architecture:

### **1. Client-Side Interaction**

**Web Browser Interface:** Users (students, faculty, and administrators) access the Online Results Portal through a web browser interface. This interface provides a user-friendly way for users to interact with the system.

### **2. Server-Side Components**

- **Web Server:** The web server hosts the web application and serves web pages to users' browsers upon request. It handles incoming HTTP requests, processes them, and returns the appropriate responses.
- **Application Server:** The application server contains the core logic of the Online Results Portal. It handles user authentication, data processing, and communication with the database.
- **Database Server:** The database server stores and manages all the data related to students, faculty, courses, and academic results. It ensures data integrity, reliability, and security.

### **3. Module Interactions:**

#### **Admin Module**

- **Authentication:** Admins login using their credentials via the web browser interface.
- **Dashboard:** Upon successful login, admins access a dashboard providing administrative functionalities such as managing user profiles, uploading result files, and updating results.
- **Result Management:** Admins can upload result files to the database and update student results as needed, such as during supplementary.

#### **Student Module**

- **Authentication:** Students login using their credentials via the web browser interface.
- **View Results:** Upon login, students can view their academic results, including current and historical data.
- **Notifications:** Students receive notifications for failed subjects or important updates via the web interface.

### **Faculty Module**

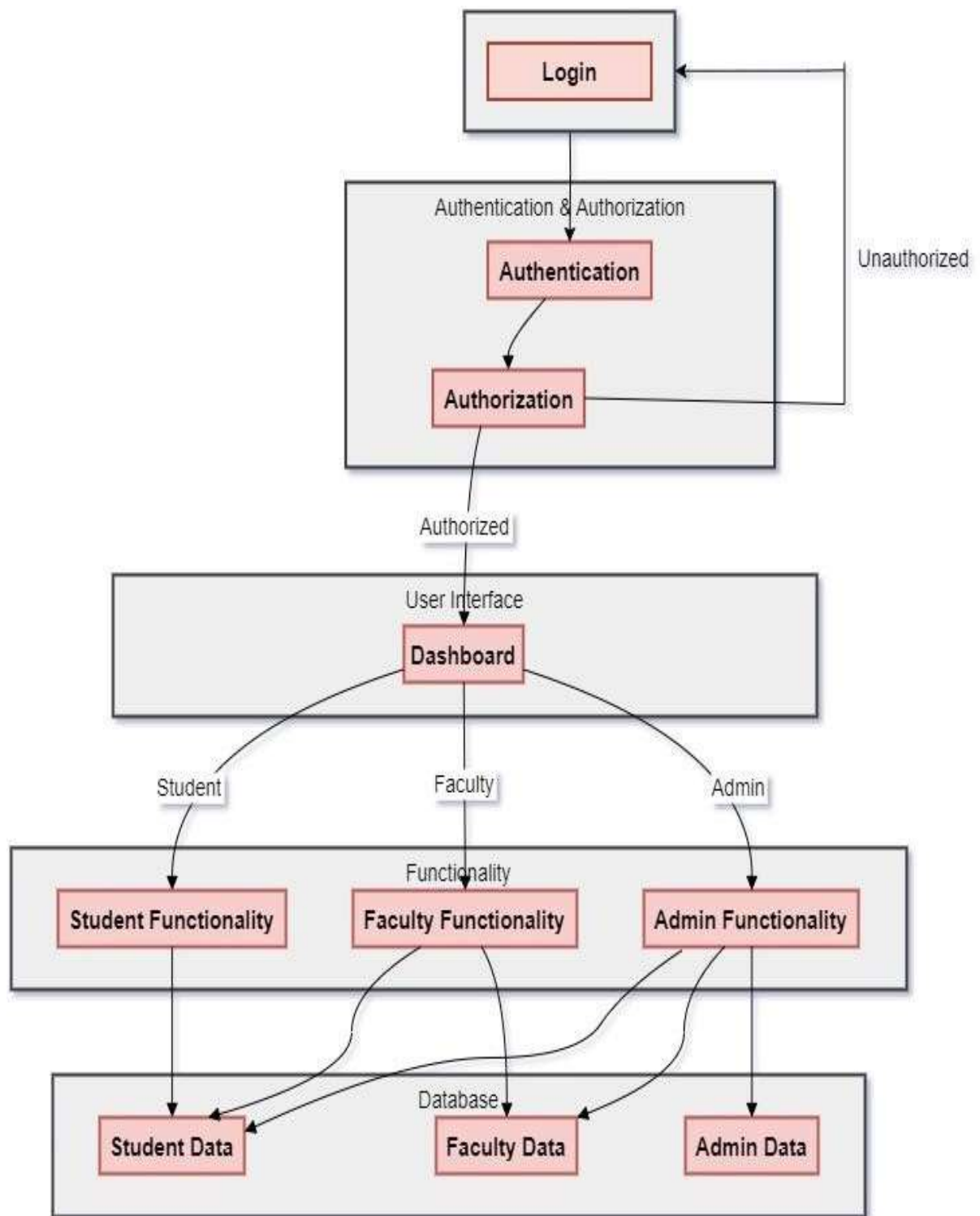
- Authentication: Faculty members login using their credentials via the web browser interface.
- View Student Performance: Upon login, faculty can access tools and functionalities to analyze student performance trends, identify areas for improvement.
- Review Course Data: Faculty can review course data, including grades, attendance, and assignment submissions, to monitor student progress and provide timely feedback.

### **4. Data Flow**

- User interactions (login, data viewing, result updates) are sent from the client-side via HTTP requests to the web server.
- The web server processes these requests, interacts with the application server to retrieve or update data from the database, and sends back responses to the client-side.
- The database server stores and manages all the data, ensuring its integrity and accessibility to authorized users.

The described system delineates a comprehensive framework for an academic result management system, encompassing distinct modules catering to the needs of administrators, students, and faculty members. The Admin Module facilitates administrative tasks such as user profile management and result file handling, ensuring seamless operations. Likewise, the Student Module empowers students to access their academic results and receive pertinent notifications, fostering transparency and engagement. Meanwhile, the Faculty Module equips educators with tools for assessing student performance and reviewing course data, facilitating informed decision-making and personalized instruction.

The system's data flow elucidates a streamlined process, where user interactions are seamlessly managed through client-side requests, facilitated by the web and application servers, and consolidated within the database for integrity and accessibility. In essence, this multifaceted system embodies efficiency, transparency, and collaboration, enhancing the educational experience for all stakeholders involved.



**Fig.3.7.1: System Architecture**

## **3.8 Feasibility Study**

A feasibility study is a systematic assessment conducted to determine the viability and potential success of a proposed project or system. It involves evaluating various factors such as technical, economic, operational, and scheduling aspects to ascertain whether the project is feasible. The primary objective of a feasibility study is to provide decision-makers with comprehensive insights into the project's feasibility, risks, benefits, and challenges. It helps stakeholders make informed decisions about whether to proceed with the project, modify its scope, or abandon it altogether. Feasibility studies typically involve analyzing technical requirements, estimating costs and benefits, assessing operational impacts, and evaluating project timelines. They serve as crucial tools for minimizing uncertainties and ensuring that proposed projects align with organizational objectives. Feasibility studies play a vital role in strategic planning, risk management, and resource allocation, guiding investment decisions and ensuring the successful implementation of projects.

### **3.8.1 Economic Feasibility**

Economic feasibility refers to the evaluation of whether a proposed project or system is financially viable and can generate positive returns on investment. It involves analyzing the costs associated with the project and comparing them to the anticipated benefits to determine whether the project is economically feasible. Key aspects considered in economic feasibility analysis include:

- **Cost Estimation:** Identifying and estimating all costs associated with the project, including initial development costs, ongoing operational expenses, maintenance costs, and any other related expenditures.
- **Benefits Estimation:** Assessing the potential benefits that the project is expected to deliver, such as increased revenue, cost savings, improved efficiency, enhanced customer satisfaction, or other positive outcomes.
- **Cost-Benefit Analysis:** Comparing the estimated costs and benefits of the project to determine whether the benefits outweigh the costs. This analysis helps decision-makers assess the project's overall economic viability and potential return on investment.
- **Payback Period:** Calculating the time it will take for the project's benefits to offset.

**Return on Investment (ROI):** Evaluating the expected financial return on the project investment over its lifecycle. ROI is calculated by dividing the net benefits of the project by the total project



costs and expressing the result as a percentage.

Economic feasibility analysis is crucial for making informed decisions about whether to proceed with a project, as it helps stakeholders assess the project's financial viability, risks, and potential rewards. It provides valuable insights into the project's economic impact and helps ensure that resources are allocated efficiently to projects that offer the best financial prospects.

### **3.8.2. Technical Feasibility**

Technical feasibility refers to the assessment of whether a proposed project or system can be successfully implemented using available technology, resources, and expertise. It involves evaluating the technical requirements, constraints, risks, and challenges associated with the project to determine its feasibility from a technical standpoint. Key aspects considered in technical feasibility analysis include:

- **Technology Assessment:** Evaluating the suitability and availability of technology platforms, tools, and resources needed to develop and implement the project. This includes assessing hardware, software, networking infrastructure, and any other technical components required.
- **Expertise and Resources:** Assessing the availability of skilled personnel, technical expertise, and resources required for the project. This involves evaluating whether the necessary knowledge, skills, and capabilities are available within the organization or if they need to be acquired or outsourced.
- **Compatibility and Integration:** Ensuring compatibility and integration with existing systems, platforms, and infrastructure within the organization. This involves assessing whether the proposed project can seamlessly integrate with other systems and processes without causing disruptions or conflicts.
- **Scalability and Performance:** Evaluating the scalability and performance requirements of the project to ensure that it can accommodate future growth, increased usage, and changing demands. This involves assessing whether the proposed solution can scale up or down effectively and meet performance benchmarks under varying conditions.

mitigate them. This involves assessing factors such as system reliability, security, interoperability, and compliance with technical standards and regulations. By conducting a thorough technical feasibility analysis, stakeholders can gain insights into the technical aspects of the project, identify potential obstacles and risks, and make informed decisions about whether to proceed with the project or explore alternative solutions. It helps ensure that the proposed project is technically viable and can be successfully implemented

within the organization's technical constraints and capabilities.

### **3.8.3. Procedural Feasibility**

Procedural feasibility, also known as operational feasibility, refers to the assessment of whether a proposed project or system can be successfully implemented and integrated into existing business processes and operations. It focuses on evaluating the practicality and effectiveness of the proposed solution in terms of its alignment with organizational objectives, workflow compatibility, user acceptance, and stakeholder support. Key aspects considered in procedural feasibility analysis include:

- **Alignment with Organizational Objectives:** Assessing whether the proposed project aligns with the strategic goals, mission, and objectives of the organization. This involves evaluating how the project will contribute to organizational growth, efficiency, and competitiveness.
- **Workflow Compatibility:** Evaluating how well the proposed solution integrates with existing business processes, workflows, and systems within the organization. This involves assessing whether the project will streamline operations, improve productivity, and enhance collaboration among stakeholders.
- **User Acceptance:** Assessing the level of acceptance and support from end-users, stakeholders, and other relevant parties. This involves gathering feedback, conducting surveys, and engaging stakeholders to understand their needs, preferences, and concerns regarding the proposed solution.
- **Training and Change Management:** Evaluating the training and change management requirements associated with the proposed project. This involves assessing the need for training programs, user documentation, and change management initiatives to help users adapt to the new system and processes effectively.
- **Organizational Culture and Readiness:** Assessing the readiness of the organization to adopt and implement the proposed solution. This involves evaluating factors such as organizational culture, leadership support, and willingness to embrace change.

By conducting a thorough procedural feasibility analysis, stakeholders can assess the practicality and effectiveness of the proposed solution in meeting organizational needs and objectives. It helps identify potential challenges, risks, and opportunities associated with the implementation process and enables stakeholders to make informed decisions about whether to

proceed with the project or explore alternative solutions. Ultimately, procedural feasibility analysis ensures that the proposed project can be successfully integrated into existing operations and processes, leading to positive outcomes and value creation for the organization.

# **CHAPTER 4**

## **SYSTEM DESIGN**

## CHAPTER 4

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## CHAPTER 4

### 4. SYSTEM DESIGN

#### 4.1. Introduction

In the system design phase of the "ONLINE RESULTS PORTAL" project, we take the requirements we've gathered and turn them into a detailed plan for how the system will work. This phase is like creating a blueprint before building a house – it helps us understand how all the pieces will fit together. During this phase, we create different diagrams and models to visualize the system. These diagrams show things like how data will flow through the system (Data Flow Diagrams), what actions users can take (Use Case Diagrams), and how different parts of the system will interact (Sequence Diagrams, Class Diagrams, etc.).

We also make decisions about what technologies and tools we'll use to build the system and consider things like security, performance, and scalability. The system design phase also involves making important decisions regarding the choice of technologies, platforms, and frameworks to be used in the development process. Additionally, considerations related to scalability, security, performance, and maintainability are addressed during this phase to ensure that the final system meets the desired quality standards.

Overall, the system design phase sets the stage for building the "ONLINE RESULTS PORTAL" by providing a clear plan for how everything will work together.

#### 4.2 DFD Diagrams

Data Flow Diagrams (DFDs) are visual representations that illustrate the flow of data within a system. They provide a structured way to model the processes, data stores, and interactions within the system.

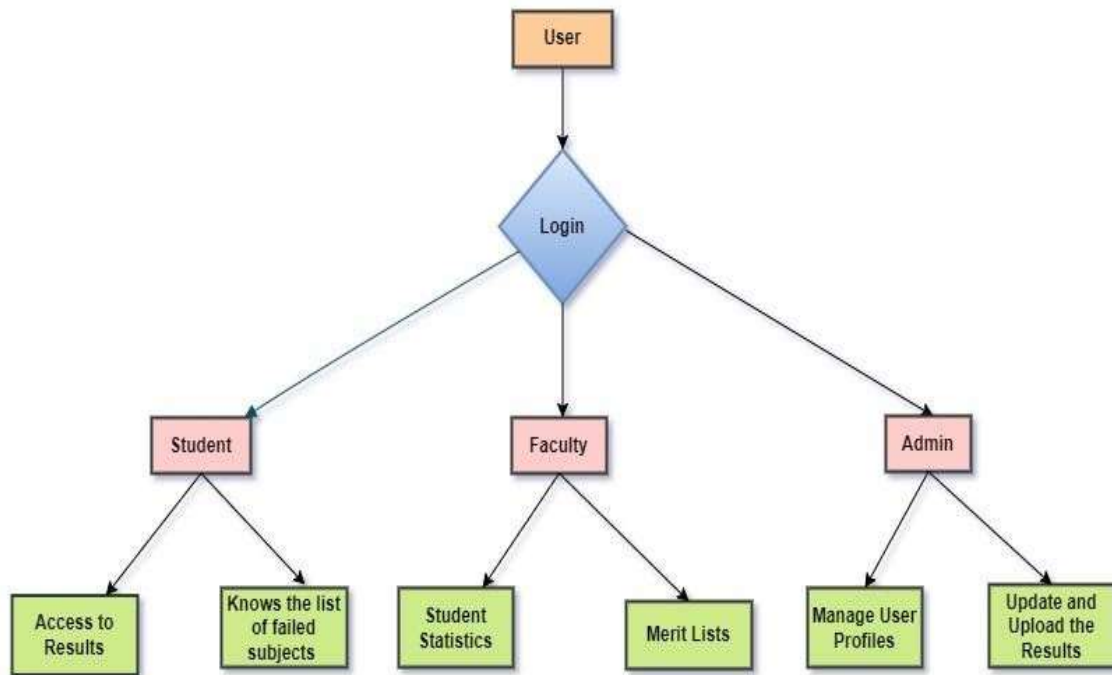
##### DFD Description

##### 1. User Login:

- Users input credentials (username/password).
- Credentials are validated against stored data.

##### 2. Authentication:

- Upon successful login, the system identifies user roles (student, faculty, admin).
- Users are redirected to respective dashboards based on roles.



**Fig.4.2.1: Data Flow Diagram**

### **3. Student Access:**

- Students can view semester-wise results.
- Failed subjects are highlighted for attention.

### **4. Faculty Access:**

- Faculty members access student statistics.
- Merit lists are available for review.

### **5. Admin Access:**

- Admins manage student profiles.
- They upload and update results.

### **6. Logout:**

- Users can log out to end their sessions securely.
- This prevents unauthorized access to the system.

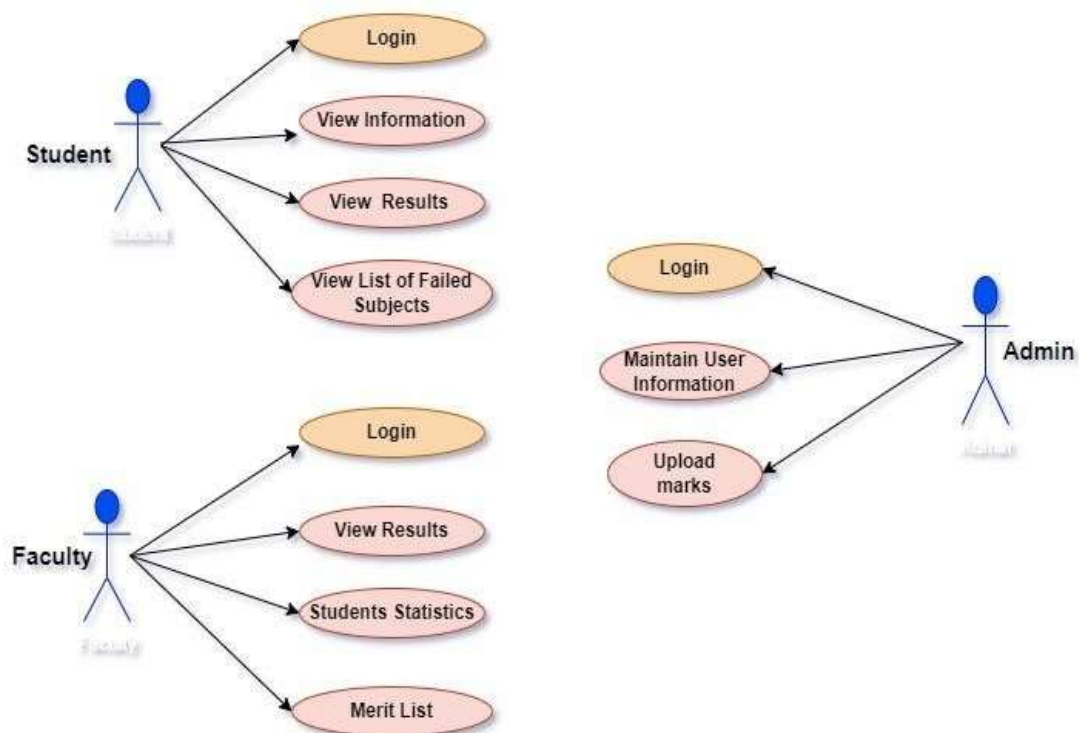
The Data Flow Diagram (DFD) provides a clear visual representation of how data moves through the "ONLINE RESULTS PORTAL" system. It highlights the seamless flow of

information from user interaction to data processing and storage. By delineating user roles and their corresponding functionalities, the DFD ensures efficient navigation and utilization of the system.

### 4.3 UML Diagrams

#### 4.3.1 Use Case Diagram

The Use Case Diagram for the "ONLINE RESULTS PORTAL" illustrates the various interactions between actors (users) and the system to accomplish specific tasks. It provides a high-level overview of the system's functionality and user roles.



**Fig.4.3.1: Use Case Diagram**

**Student:**

- Can log in to the portal using credentials.
- Access their semester results and view failed subjects (if any).

**Faculty:**

- Log in to the system with appropriate credentials.



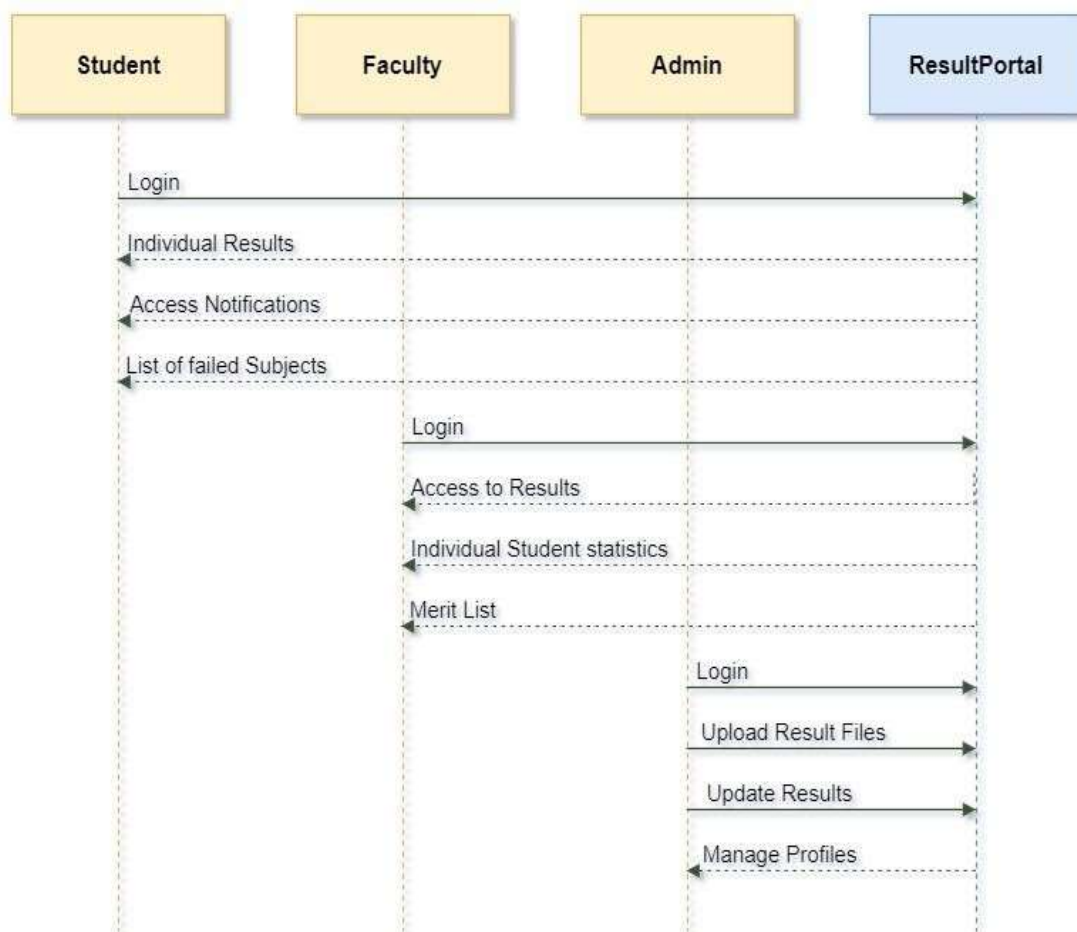
- View student statistics, including performance and merit lists.

### Admin:

- Log in into the system via credentials.
- Manage student profiles, including adding, updating, or removing student information.
- Upload result files and update results as necessary.

### 4.3.2 Sequence Diagram

The Sequence Diagram for the "ONLINE RESULTS PORTAL" illustrates the step-by-step interactions between users and the system components. It demonstrates the flow of messages and actions among different entities to accomplish specific tasks such as user authentication, result viewing, statistical analysis, and administrative operations.



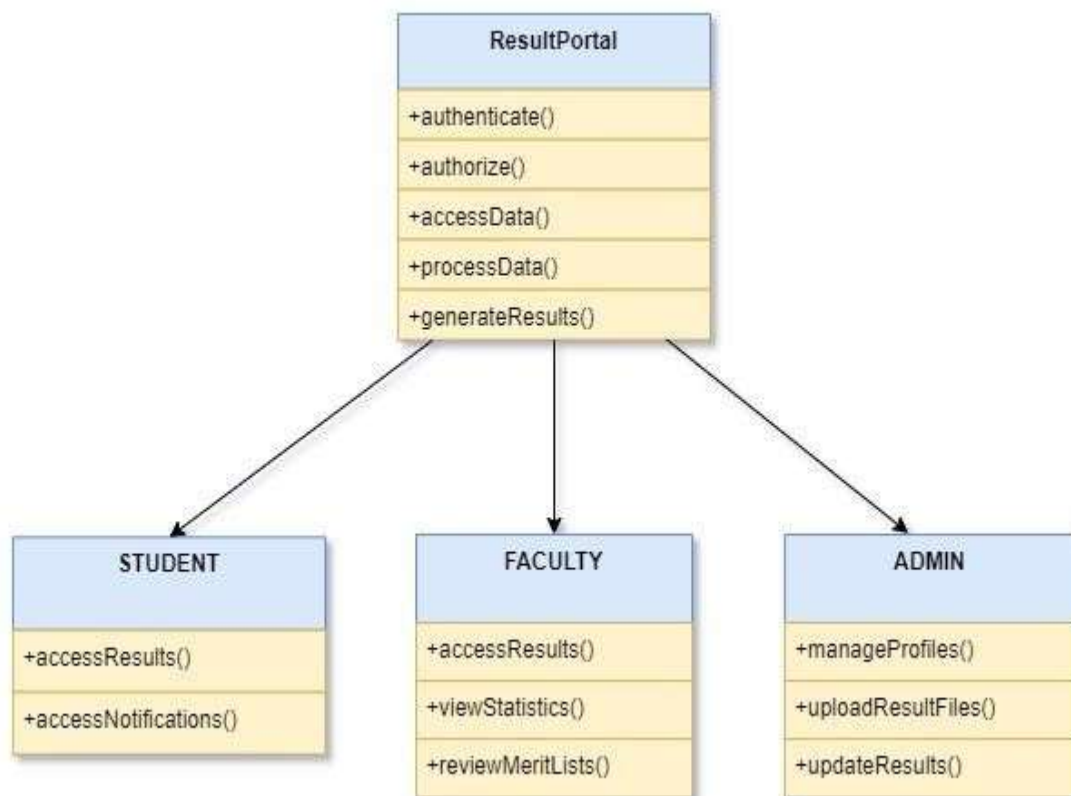
**Fig.4.3.2: Sequence Diagram**

The Sequence Diagram serves as a valuable tool for visualizing the chronological sequence of

interactions within the "ONLINE RESULTS PORTAL" system. It provides a clear representation of how users and system components communicate to achieve various functionalities aiding in understanding the underlying processes and ensuring operation of system.

### 4.3.3 Class Diagram

The Class Diagram offers a structured overview of the "ONLINE RESULTS PORTAL" system's object-oriented design, showcasing the different classes, their attributes, methods, and relationships. It serves as a blueprint for the system's architecture, illustrating the essential components and their interactions.



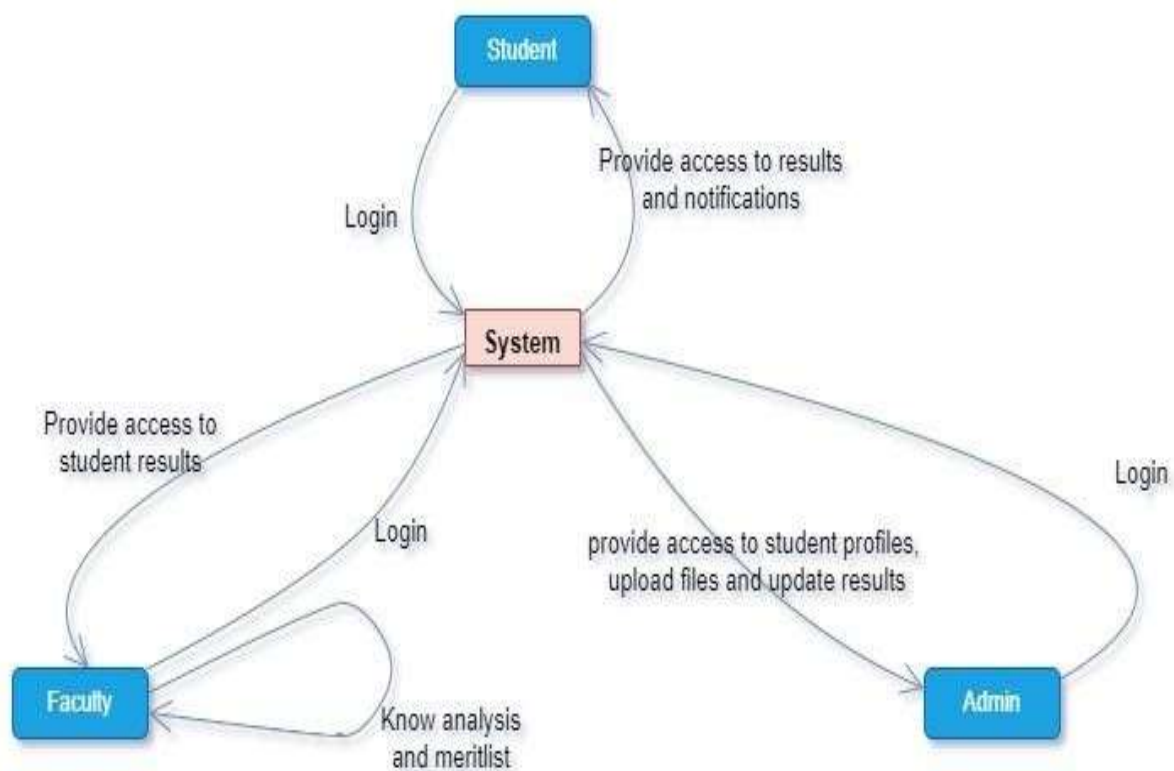
**Fig.4.3.3: Class Diagram**

Through this diagram, developers can comprehend the organization of classes, hierarchies, and associations, facilitating effective software design, development, and maintenance. It provides a clear visualization of classes, attributes, methods, and their relationships, aiding developers in understanding the system's architecture and facilitating efficient software

development.

#### 4.3.4 Collaboration Diagram

The Collaboration Diagram, also known as a Communication Diagram, provides a visual representation of how objects interact to accomplish tasks within a system. It illustrates the flow of messages between objects and the sequence of interactions that occur during runtime.



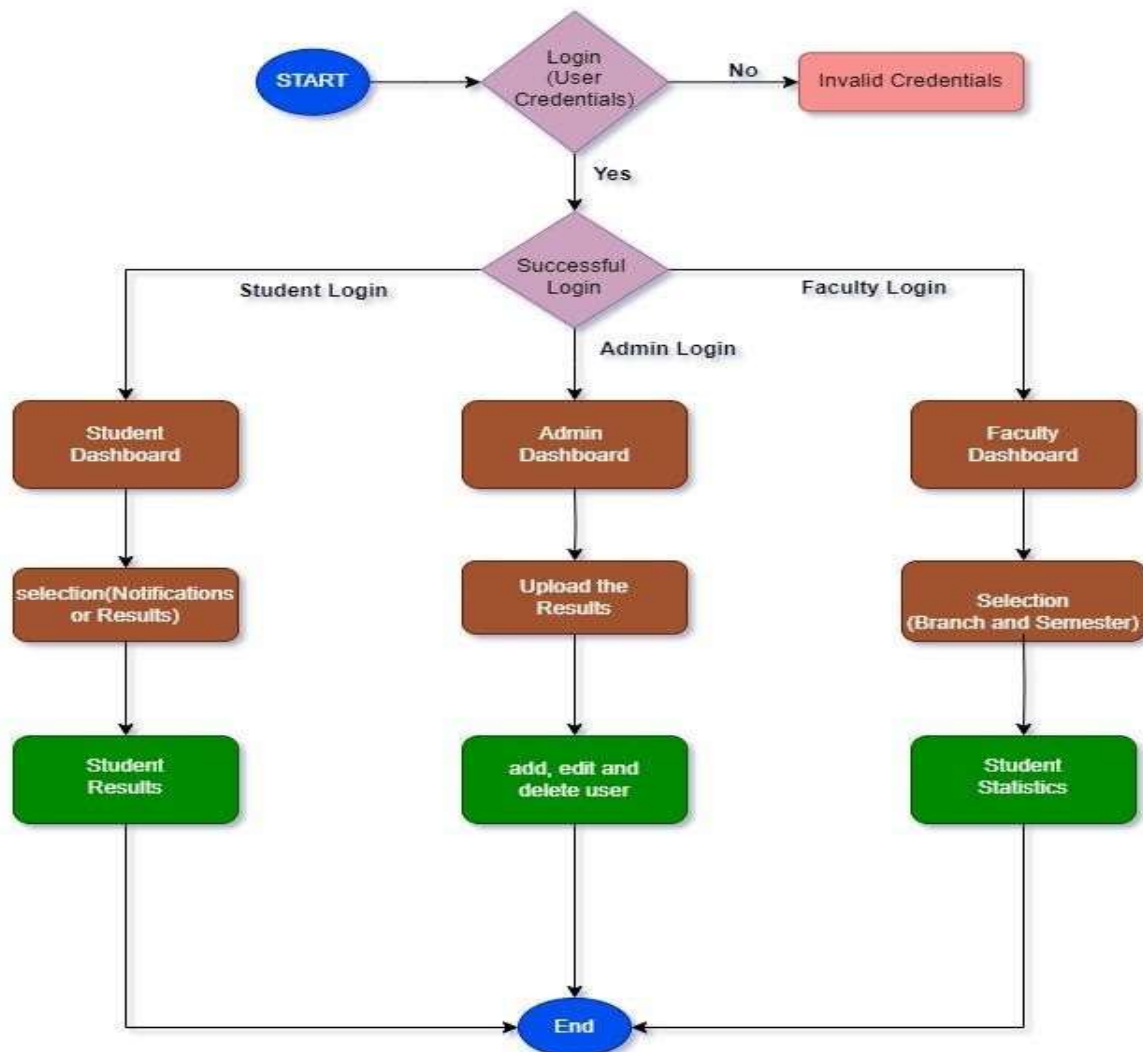
**Fig.4.3.4: Collaboration Diagram**

In the context of the "ONLINE RESULTS PORTAL" system, collaboration diagrams depict the dynamic behavior of the system by showing the exchange of messages among objects such as students, faculty, and administrators. This diagram is helpful to understanding the communication patterns between objects and help in designing, implementing, and maintaining the system effectively.

#### 4.3.5 Activity Diagram

The Activity Diagram visually represents the flow of activities or actions within a system. It outlines the sequence of steps required to accomplish a particular task or use case, illustrating the decision

points, branching paths, and parallel activities.



**Fig.4.3.5: Activity Diagram**

In the context of the "ONLINE RESULTS PORTAL" system, the Activity Diagrams depict the various processes such as user authentication, result retrieval, result upload, and management. These diagrams help in understanding the workflow of the system, identifying potential bottlenecks, and optimizing the user experience.

# **CHAPTER 5**

## **SYSTEM CODING & TESTING**

## **CHAPTER 5**

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## CHAPTER 5

### SYSTEM CODING & TESTING

#### 5.1. Introduction

System coding and testing are crucial phases in software development where the design specifications are translated into executable code and thoroughly evaluated for correctness and robustness. Our project, titled "Online Results Portal," aims to provide a comprehensive platform for students, faculty, and administrators to access and manage academic results and performance data. Leveraging a combination of Python, PHP, HTML, and CSS technologies, the system offers a user-friendly interface and robust functionality to meet the diverse needs of its users. With the increasing demand for efficient and accessible educational platforms, our project addresses the need for a centralized system to manage academic results seamlessly. By integrating Python for backend processing and PHP for server-side scripting, we ensure dynamic and responsive interactions, while HTML and CSS facilitate intuitive and visually appealing user interfaces.

Through this project, we want to make it easier for students to check their grades and get updates on their performance. We also want teachers to have a better way to look at student data, and for administrators to manage student profiles and upload grades more efficiently. With these technologies, we aim to create a strong, flexible, and user-friendly online portal that improves the academic experience for everyone involved.

#### 5.2. Implementation

In this section, we'll discuss how we implemented the "Online Results Portal" using Python, PHP, HTML, and CSS.

##### **Python Implementation:**

Python was used for the backend development of the system. We utilized the Flask framework to create a robust and efficient web application. Flask provided us with tools and libraries to handle routing, form validation, and database operations seamlessly.

##### **PHP Implementation:**

PHP was used for server-side scripting to interact with the database and handle dynamic content

generation. We used PHP alongside MySQL to manage student profiles, store result data, and perform CRUD (Create, Read, Update, Delete) operations on the database.

### **HTML Implementation:**

HTML was employed for structuring the web pages and defining their content. We created various HTML templates for different sections of the portal, such as the student dashboard, faculty dashboard, and admin panel. These templates were designed to be responsive and user-friendly.

### **CSS Implementation:**

CSS played a crucial role in styling the HTML elements and making the user interface visually appealing. We used CSS to customize the layout, colors, fonts, and overall appearance of the web pages. CSS frameworks like Bootstrap were also utilized to ensure consistency and responsiveness across different devices.

### **Integration and Testing:**

After implementing each component, we integrated them to ensure seamless communication and functionality. We conducted thorough testing using unit tests, integration tests, and user acceptance tests to identify and fix any bugs or issues. Continuous testing was performed throughout the development process to maintain the quality and reliability of the system.

## **5.3 About Python**

Python is a high-level, interpreted programming language known for its simplicity and readability. In the "Online Results Portal" project, Python serves as the primary backend programming language, providing the foundation for the web application's functionality.

### **Key Features of Python in the Project:**

**Flask Framework:** Python's Flask framework is utilized to develop the backend of the web application. Flask is a lightweight and versatile micro-framework that allows us to create web applications quickly and efficiently. It provides essential tools and libraries for handling routing, HTTP requests, form validation, and database interactions.

**Database Interaction:** Python is used to interact with the database system, enabling the storage and retrieval of student profiles, result data, and other relevant information. We leverage



Python's database libraries such as SQL Alchemy or Flask-SQL Alchemy to execute database queries and manage data effectively.

**Integration with Other Technologies:** Python seamlessly integrates with other technologies used in the project, such as HTML, CSS, and JavaScript. It facilitates the communication between the frontend and backend components, enabling dynamic content generation and user interaction.

**Testing and Debugging:** Python offers robust testing frameworks like pytest and unittest, which are utilized to perform unit tests, integration tests, and end-to-end testing of the web application. Python's debugging capabilities, combined with tools like pdb or integrated development environments (IDEs) such as PyCharm, aid in identifying and resolving issues efficiently.

Python plays a crucial role in the "Online Results Portal" project, powering its backend infrastructure and enabling seamless interaction between users and the system

### 5.4 Sample Code

Below are the sample codes

#### database\_schema.php

```
<?php
// Change these credentials to match your MySQL server

$servername = "localhost";
$username = "root";
$password = "";
$dbname = "STUDENT_MARKS_MANAGEMENT";

// Create connection
$conn = new mysqli($servername, $username, $password);

// Check connection
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}
```

```
}

// Create database

$sql = "CREATE DATABASE IF NOT EXISTS $dbname";
if ($conn->query($sql) === TRUE) {
    echo "Database created successfully<br>";
} else {
    echo "Error creating database: " . $conn->error;
}

// Connect to the created database
$conn = new mysqli($servername, $username, $password, $dbname);

// SQL query to create tables

$sql = "CREATE TABLE IF NOT EXISTS BRANCH_ID_DETAILS (
    BRANCH_ID INT PRIMARY KEY NOT NULL,
    BRANCH_NAME VARCHAR(35)
)";

// Execute table creation query

if ($conn->query($sql) === TRUE) {
    echo "Table 'BRANCH_ID_DETAILS' created successfully<br>";
} else {
    echo "Error creating table 'BRANCH_ID_DETAILS': " . $conn->error;
}
```

```
// Define other table creation queries and insertion queries here...

// Close connection
$conn->close();
?>
```

### Index.html

```
<!DOCTYPE html>
<html lang="en">

<head>
  <title>ONLINE RESULTS PORTAL</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css"
rel="stylesheet">
  <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></sc
ript>
  <link
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css"
rel="stylesheet">
  <link rel="stylesheet" href="..\demo\style sheet\style1.css">
  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-
awesome/5.15.3/css/all.min.css"/>
  <style>
    . loading-symbol {
      display: none;
      /* Initially hide the loading symbol */
```

```

    }
</style>
<script src="https://code.jquery.com/jquery-3.6.4.min.js"></script>
</head>

<div class="content">
    <div class="text">
        <h2>Login</h2>
    </div>

    <div class="login-form">
        <form id="loginForm" action="/admin_login.php" method="post">
            <div class="field">
                <input type="text" class="form-control" id="username" name="username"
placeholder="Enter username">
                <span class="fas fa-user"></span>
                <label>User name</label>
            </div>

            <div class="field">
                <input type="password" class="form-control" id="password"
name="password" placeholder="Enter password">
                <span class="fas fa-lock"></span>
                <label>Password</label>
            </div>

            <!-- Error message placeholder -->
            <div class="error-message" style="color: red;"></div>

            <button type="button" onclick="submitForm()">Login</button>
            <div class="loading-symbol">

```

```
<!-- Loading symbol placeholder -->
<span class="spinner-border spinner-border-sm" role="status" aria-
hidden="true"></span> Loading...
</div>
</form>
</div>

</div>

<script>
function submitForm() {
    // Show loading symbol
    $('.loading-symbol').show();

    $.ajax({
        type: "POST",
        url: "./admin_login.php",
        data: $("#loginForm").serialize(),
        success: function(response) {
            // Hide loading symbol
            $('.loading-symbol').hide();

            if (response.startsWith("success")) {
                var responseData = response.split("success");

                // Extracting string from the array
                var string = responseData[1];

                // Splitting the string by space
                var parts = string.split(' ');
```

```
// Extracting the numeric part and the rest of the string
var userRole = parts[0]; // '1'
var restOfString = parts.slice(1).join(' '); // 'jagadees r'

// Update the content of the "user" element
$("#user").text("Welcome, " + restOfString);
localStorage.setItem("userName", restOfString);

// Redirect based on user role
if (userRole === "1") {
    window.location.href = "./stdLogin.html";
} else if (userRole === "2") {
    window.location.href = "./facultylogin.html";
} else if (userRole === "3") {
    window.location.href = "./adminLogin.html";
}
} else {
    $(".error-message").text(response); // Display error message
}
}
});
}
</script>

<!-- Bootstrap JS and dependencies... -->
</body>

</html>
```

**App.py**

```
from flask import Flask, render_template, request, redirect, url_for

app = Flask(__name__)

def fetch_user_data(user_id):
    # Sample implementation for fetch_user_data function
    pass

def faculty_login():
    # Sample implementation for faculty_login function
    pass

def get_unique_years_and_branches_from_database():
    # Sample implementation for get_unique_years_and_branches_from_database
    function
    pass

def fetch_student_results(year, branch, semester):
    # Sample implementation for fetch_student_results function
    pass

def calculate_sgpa(student_results):
    # Sample implementation for calculate_sgpa function
    pass

def fetch_pass_results(results):
    # Sample implementation for fetch_pass_results function
    pass
```

```
def fetch_fail_results(results):
    # Sample implementation for fetch_fail_results function
    pass

@app.route('/display_user_data', methods=['GET', 'POST'])
def display_user_data():
    # Sample implementation for display_user_data route
    Pass
@app.route('/')

def faculty_login():
    # Sample implementation for faculty_login route
    pass

@app.route('/results', methods=['GET', 'POST'])
def form():
    # Sample implementation for form route
    pass

@app.route('/student_results/<year>/<branch>/<semester>', methods=['GET', 'POST'])
def student_results(year, branch, semester):
    # Sample implementation for student_results route
    pass

@app.route('/display_results/<year>/<branch>/<semester>', methods=['GET'])
def display_results(year, branch, semester):
    # Sample implementation for display_results route
    pass

@app.route('/meritlist/<year>/<branch>/<semester>', methods=['GET'])
```



```
def meritlist(year, branch, semester):
    # Sample implementation for meritlist route
    pass

@app.route('/pass_results/<year>/<branch>/<semester>', methods=['GET'])
def display_pass_results(year, branch, semester):
    # Sample implementation for display_pass_results route
    pass

@app.route('/fail_results/<year>/<branch>/<semester>', methods=['GET'])
def display_fail_results(year, branch, semester):
    # Sample implementation for display_fail_results route
    pass

if __name__ == "__main__":
    app.run(debug=True)
```

### Student.php

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8" />

    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Student Page</title>
    <!-- Linking Google font link for icons -->
    <link rel="stylesheet"
href="https://fonts.googleapis.com/css2?family=Material+Symbols+Outlined:opsz,wg
ht,FILL,GRAD@20..48,100..700,0..1,-50..200">
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css"
```

```

rel="stylesheet">
  <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></sc
ript>
  <script src="https://code.jquery.com/jquery-3.6.4.min.js"></script>

  <link
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css"
rel="stylesheet">
  <meta http-equiv="X-UA-Compatible" content="IE=edge" />
  <meta name="viewport" content="width=device-width, initial-scale=1.0" />

  <link rel="stylesheet" href="style5.css" />

  <link
  href="https://unpkg.com/boxicons@2.1.4/css/boxicons.min.css"
  rel="stylesheet" />
</head>
<body>
<body>

  <!-- navbar -->
  <nav class="navbar">
    <div class="logo_item">
      <i class="bx bx-menu" id="sidebarOpen"></i>
      </i>KSRMCE RESULTS PORTAL
    </div>
    <div class="navbar_content">
      <div class="container">

        <div class="navbar-brand" id="user"></div>

```

```

        <div class="collapse navbar-collapse" id="navbarText">

</div>

    </nav>
</div>

</div>
</nav>

<!-- sidebar -->
<nav class="sidebar">
    <div class="menu_content">
        <ul class="menu_items">
            <h5> Student Dashboard</h5>
            <!-- duplicate or remove this li tag if you want to add or remove navlink with
submenu -->
            <!-- start -->
            <li class="item">
                <a href="StdLogin.html" class="nav_link submenu_item">
                    <span class="navlink_icon">
                        <i class="bx bx-home-alt"></i>
                    </span>
                    <span class="navlink">HOME</span>

                </a>

            </li>

            <li class="item">

```

```

<a href="/student/student_results1.php" class="nav_link submenu_item"
target="iframe_a">
    <span class="navlink_icon">
        <i class="bx bx-bar-chart"></i>
    </span>
    <span class="navlink">STUDENT RESULTS</span>

<a>
</li>
<!-- end -->
<!-- duplicate these li tag if you want to add or remove navlink only -->
<!-- Start -->
<li class="item">
    <a href="/student/backlogs_display.php" class="nav_link" target="iframe_a">
        <span class="navlink_icon">
            <i class="bx bx-user-x"></i>
        </span>
        <span class="navlink">FAILED SUBJECTS</span>
    </a>
</li>
<!-- End -->

<li class="item">
    <a href="/student/student_profile.php" class="nav_link" target="iframe_a">
        <span class="navlink_icon">
            <i class="bx bx-user"></i>
        </span>
        <span class="navlink">STUDENT PROFILE</span>
    </a>
</li>
    <li class="item">

```

```

        <a href="/common/password_change.html" class="nav_link"
target="iframe_a">
        <span class="navlink_icon">
        <i class="bx bx-edit"></i>
        </span>
        <span class="navlink">Password Change</span>
        </a>
    </li>
</ul>
<!-- Sidebar Open / Close -->

<div class="bottom_content">
<div class="bottom expand_sidebar">

    <a href="/ksrm.html" class="nav_link">
        <span class="navlink_icon">
        <i class="bx bx-log-out"></i>
        </span>
        <span class="navlink">LOGOUT</span>
    </div>

</div>
</div>
</nav>
<div id="content">
    <div class="container-fluid">
        <iframe src="student.html" name="iframe_a" height="750px"
width="100%" " title="Iframe Example"></iframe>

    </div>
</div>

```

```
<!-- JavaScript -->

<script>
var userName = localStorage.getItem("userName");
    if (userName) {
        // Update the content of the "user" element
        document.getElementById("user").innerHTML = "WELCOME, " + userName;
    }
</script>
</body>

</html>
```

**Faculty.php:**

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8" />

    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Faculty Page</title>
    <!-- Linking Google font link for icons -->
    <link rel="stylesheet"
href="https://fonts.googleapis.com/css2?family=Material+Symbols+Outlined:opsz,wg
ht,FILL,GRAD@20..48,100..700,0..1,-50..200">
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css"
rel="stylesheet">
    <script
```

```

src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></sc
ript>
<script src="https://code.jquery.com/jquery-3.6.4.min.js"></script>

<link
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css"
rel="stylesheet">
<meta http-equiv="X-UA-Compatible" content="IE=edge" />
<meta name="viewport" content="width=device-width, initial-scale=1.0" />

<link rel="stylesheet" href="style5.css" />

<link
href="https://unpkg.com/boxicons@2.1.4/css/boxicons.min.css"
rel="stylesheet" />
</head>
<body>
<body>

<!-- navbar -->
<nav class="navbar">
<div class="logo_item">
<i class="bx bx-menu" id="sidebarOpen"></i>
</i>KSRMCE RESULTS PORTAL
</div>
<div class="navbar_content">
<div class="container">

<div class="navbar-brand" id="user"></div>

<div class="collapse navbar-collapse" id="navbarText">

```

```

        </div>

    </nav>

</div>

</div>
</nav>

<!-- sidebar -->
<nav class="sidebar">
    <div class="menu_content">
        <ul class="menu_items">
            <h5> Faculty Dashboard</h5>
            <!-- duplicate or remove this li tag if you want to add or remove navlink with
submenu -->
            <!-- start -->
            <li class="item">
                <a href="facultylogin.html" class="nav_link submenu_item">
                    <span class="navlink_icon">
                        <i class="bx bx-home-alt"></i>
                    </span>
                    <span class="navlink">HOME</span>
                </a>
            </li>

            <li class="item">
                <a href="http://127.0.0.1:5000/results" class="nav_link submenu_item"
target="iframe_a">
                    <span class="navlink_icon">
                        <i class="bx bx-bar-chart"></i>
                    </span>
                    <span class="navlink">STUDENT RESULTS</span>

```



```
<a>
</li>
<!-- end -->
<!-- duplicate these li tag if you want to add or remove navlink only -->
<!-- Start -->
<li class="item">
  <a href="http://127.0.0.1:5000/subject_details" class="nav_link"
target="iframe_a">
    <span class="navlink_icon">
      <i class="bx bx-line-chart"></i>
    </span>
    <span class="navlink">SUBJECT RESULTS</span>
  </a>
</li>
<!-- End -->

<li class="item">
  <a href="http://127.0.0.1:5000/subject_statistics_form" class="nav_link"
target="iframe_a">
    <span class="navlink_icon">
      <i class="bx bx-pie-chart-alt"></i>
    </span>
    <span class="navlink">SUBJECT STATISTICS</span>
  </a>
</li>
</ul>
<!-- Sidebar Open / Close -->

<div class="bottom_content">
  <div class="bottom expand_sidebar">
```

```

<a href="/ksrm.html" class="nav_link">
  <span class="navlink_icon">
    <i class="bx bx-log-out"></i>
  </span>
  <span class="navlink">LOGOUT</span>
</div>
</div>
</div>
</nav>
<div id="content">

  <div class="container-fluid">
    <iframe src="faculty2.html" name="iframe_a" height="750px"
width="100%" " title="Iframe Example"></iframe>
  </div>
</div>
<!-- JavaScript -->
<script>
var userName = localStorage.getItem("userName");
if (userName) {
  // Update the content of the "user" element
  document.getElementById("user").innerHTML = "WELCOME, " + userName;
}
</script>
</body>
</html>

```

## Style.css

```
@import
```

```
url("https://fonts.googleapis.com/css2?family=Poppins:wght@200;300;400;500;600;700&display=swap");
* {
  margin: 0;
  padding: 0;
  box-sizing: border-box;
  font-family: "Poppins", sans-serif;
}
:root {
  --white-color: #fff;
  --blue-color: #4070f4;
  --grey-color: #707070;
  --grey-color-light: #aaa;
}
body {
  background-color: #e7f2fd;
  transition: all 0.5s ease;
  overflow-x: hidden;
}
body.dark {
  background-color: #333;
}
body.dark {
  --white-color: #333;
  --blue-color: #fff;
  --grey-color: #f2f2f2;
  --grey-color-light: #aaa;
}
/* navbar */
.navbar {
  position: absolute;
```

```
width: 100%;
left: 0;
background-color: var(--white-color);
display: flex;
align-items: center;
justify-content: space-between;
padding: 15px 30px;
z-index: 1000;
box-shadow: 0 0 2px var(--grey-color-light);
}
.logo_item {
display: flex;
align-items: center;
column-gap: 10px;
font-size: 22px;
font-weight: 500;
color: var(--blue-color);
}
.navbar img {
width: 35px;
height: 35px;
border-radius: 50%;
}
.search_bar {
height: 47px;
max-width: 430px;
width: 100%;
}
.search_bar input {
height: 100%;
```

```

width: 100%;
border-radius: 25px;
font-size: 18px;
outline: none;
background-color: var(--white-color);
color: var(--grey-color);
border: 1px solid var(--grey-color-light);
padding: 0 20px;
}
.navbar_content {
display: flex;
align-items: center;
column-gap: 25px;
}
.navbar_content i {
cursor: pointer;
font-size: 20px;
color: var(--grey-color);
}
/* sidebar */
.sidebar {
background-color: var(--white-color);
width: 260px;
position: absolute;
left: 0;
height: 100%;
padding: 80px 20px;
z-index: 100;
overflow-y: scroll;
box-shadow: 0 0 1px var(--grey-color-light);
transition: all 0.5s ease;

```

```
}  
.sidebar.close {  
  padding: 60px 0;  
  width: 80px;  
}  
.sidebar::-webkit-scrollbar {  
  display: none;  
}  
.menu_content {  
  position: relative;  
}  
.menu_title {  
  margin: 15px 0;  
  padding: 0 20px;  
  font-size: 18px;  
}  
.sidebar.close .menu_title {  
  padding: 6px 30px;  
}  
.menu_title::before {  
  color: var(--grey-color);  
  white-space: nowrap;  
}  
.menu_dahsboard::before {  
  content: "Dashboard";  
}  
.menu_editor::before {  
  content: "Editor";  
}  
.menu_setting::before {  
  content: "Setting";}
```

## 5.5 Software Testing Techniques

**1. Unit Testing:** This technique involves testing individual components or units of the software in isolation to verify their correctness. In our project, unit testing can be applied to test functions or methods responsible for specific functionalities, such as fetching student data, calculating SGPA, or querying the database for results. By thoroughly testing these units, we can identify and address any errors or bugs early in the development process, ensuring the overall stability and integrity of the system.

**2. Integration Testing:** Integration testing focuses on testing the interactions and interfaces between different modules or components of the software to ensure they function correctly when integrated together. In our project, integration testing can be applied to validate the communication between various layers of the application, such as the frontend interface, backend server, and database. By testing how these components interact and exchange data, we can detect and resolve any integration issues or inconsistencies, ensuring smooth functionality across the entire system.

**3. User Acceptance Testing (UAT):** User acceptance testing involves testing the software from the end user's perspective to ensure it meets their requirements and expectations. In our project, UAT can be performed by actual users, such as faculty members or administrators, to evaluate the system's usability, accuracy, and compliance with predefined criteria. By gathering feedback and insights from real users, we can identify any usability issues or areas for improvement, ultimately enhancing the overall user experience of the student results management system.

**4. Security Testing:** Security testing involves evaluating the software's resistance to potential security threats and vulnerabilities, such as unauthorized access, data breaches, or injection attacks. In our project, security testing can be applied to assess the robustness of authentication mechanisms, data encryption practices, and access controls implemented within the system.

**5. Performance Testing:** Performance testing focuses on assessing the software's responsiveness, scalability, and reliability under various load conditions. In our project, performance testing can be used to evaluate the system's responsiveness during peak usage periods, such as when multiple users simultaneously access the application to view student results

## 5.6 Software Testing Strategies

Incorporating software testing strategies is crucial for ensuring the robustness and quality of our online result portal project. Here are the software testing strategies applied to our project:

### 1. Regression Testing:

- **Application:** Regression testing involves retesting the previously tested functionalities to ensure that new changes or updates do not adversely affect the existing features.
- **Relevance to Project:** In our online result portal, regression testing ensures that modifications or enhancements made to the system, such as adding new features or fixing bugs, do not introduce unexpected errors or regressions.
- **Outcome:** By performing regular regression testing, we can maintain the stability and reliability of the application, minimizing the risk of unintended consequences from code changes.

### 2. Exploratory Testing:

- **Application:** Exploratory testing is an approach where testers explore the application, learning about its functionalities while simultaneously designing and executing tests.
- **Relevance to Project:** In our project, exploratory testing can uncover unexpected behaviors, usability issues, or edge cases that may not be covered by scripted test cases.
- **Outcome:** By leveraging exploratory testing, we can identify defects or usability concerns early in the development process, allowing for timely adjustments and improvements to enhance the user experience.

### 3. Risk-Based Testing:

- **Application:** Risk-based testing prioritizes test cases based on the perceived risks associated with specific functionalities or areas of the application.
- **Relevance to Project:** In our online result portal, risk-based testing helps focus testing efforts on critical features or components that are prone to higher risks of failure or impact.
- **Outcome:** By prioritizing testing activities according to risk levels, we can allocate resources effectively, mitigate potential risks, and ensure that testing efforts align with business objectives and user expectations.

### 4. Continuous Integration and Continuous Testing (CI/CT):

- **Application:** CI/CT practices involve automatically integrating code changes into a shared repository and running automated tests as part of the build process.



- **Relevance to Project:** In our online result portal, CI/CT pipelines facilitate early detection of defects, ensuring that code changes are thoroughly tested and validated before deployment.
- **Outcome:** By implementing CI/CT, we can accelerate the development cycle, improve code quality, and deliver updates to the online result portal more frequently and reliably while maintaining stability and performance.

### **Test Cases Overview:**

This table outlines the various test cases conducted to validate the functionality of the "ONLINE RESULTS PORTAL" project. Each test case represents a specific scenario or action and includes the input provided, the expected result, the actual result observed during testing, and the status of the test.

### **Test Cases Details:**

**Student Login:** Tests the login functionality for students using valid and invalid credentials.

**Admin Login:** Verifies the login functionality for administrators with correct and incorrect credentials.

**Upload Files:** Validates the file upload feature for administrators, ensuring successful uploads and handling of incorrect files.

**Faculty Login:** Ensures faculty members can log in successfully with valid credentials.

**Results Displaying:** Tests the display of student results based on selected criteria such as year, branch, and semester.

**Faculty Analysis:** Verifies access to statistical analysis and trends of results for faculty members.

## ONLINE RESULTS PORTAL

| S. No. | TEST CASES         | INPUT                                  | EXPECTED RESULT                                   | ACTUAL RESULT                                       | STATUS |
|--------|--------------------|--|---|---|--------|
| 1      | Student Login      | Enter valid credentials                | Student gets logged in                            | Student login is successful                         | pass   |
| 2      | Student Login      | Enter invalid credentials              | Student does not get logged in                    | Student login is unsuccessful                       | pass   |
| 3      | Admin Login        | Enter valid admin credentials          | Admin home page should be opened                  | Admin home page has been opened                     | Pass   |
| 4      | Admin Login        | Enter invalid admin credentials        | Admin home page should not be opened              | Admin home page is not opened                       | Pass   |
| 5      | Faculty Login      | Enter valid faculty credentials        | Faculty dashboard should be opened                | Faculty dashboard has been opened                   | pass   |
| 6      | Faculty Login      | Enter invalid faculty credentials      | Faculty dashboard should not be opened            | Faculty dashboard is not opened                     | pass   |
| 7      | Email verification | Verify valid email address             | Email verification successful                     | Email verified successfully                         | Pass   |
| 8      | Email verification | Verify invalid email address           | Email verification unsuccessful                   | Email verification failed                           | Pass   |
| 9      | Upload Files       | Upload all required files              | A message from the server "Successfully uploaded" | Files are successfully uploaded                     | Pass   |
| 10     | Upload Files       | Upload incomplete or incorrect files   | Error message indicating upload failure           | Error message is displayed for invalid files        | Pass   |
| 11     | Results Displaying | Enter valid year, branch, and semester | Display student results for the selected criteria | Student results are displayed for selected criteria | Pass   |

|    |                       |  |   |  |      |
|----|-----------------------|--|---|--|------|
| 12 | Results<br>Displaying | Enter invalid year,<br>branch, or semester | Display an error<br>message                           | Error message is<br>displayed for invalid<br>selection | Pass |
| 13 | Faculty<br>Analysis   | Access faculty<br>analysis feature         | View statistical<br>analysis and trends<br>of results | Faculty analysis<br>feature displays<br>relevant data  | Pass |

**Table.5.6.1: Test Cases**

# **CHAPTER 6**

## **RESULTS**

## **CHAPTER 6**

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## CHAPTER 6

### 6. RESULTS

#### 6.1. Introduction

The implementation of our meticulously designed website marks a significant leap forward in college management, addressing the inherent challenges of decentralized systems with comprehensive features and streamlined processes. By centralizing project information and enhancing transparency, it empowers students with valuable insights while optimizing faculty management through features like project batch division. Transparent communication channels foster collaboration among stakeholders, resulting in a cohesive project management ecosystem. Furthermore, the platform's advancements in student activity tracking and certificate management streamline administrative tasks, setting a new standard for efficiency in academia. As we continue to innovate and refine our platform, its transformative impact on college administration and student engagement is poised to shape the future of academic institutions.

## 6.2. Output Screens



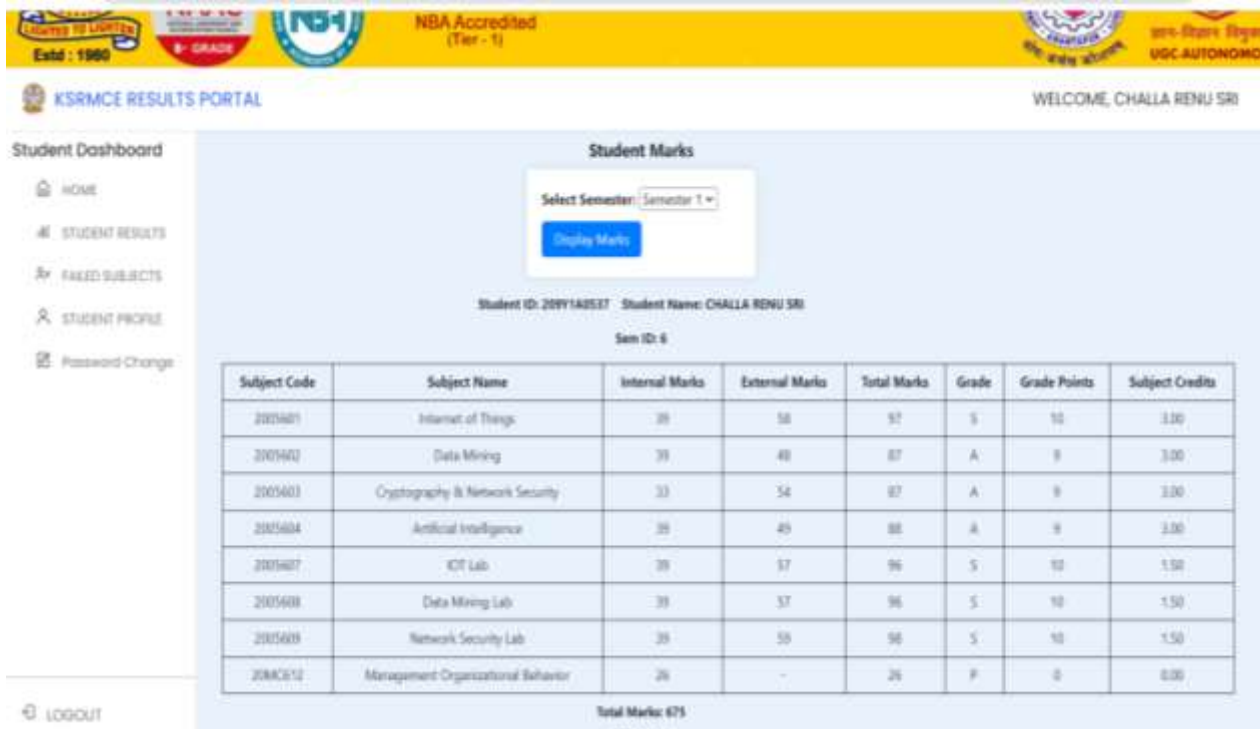
Screen.6.2.1: Home page



Screen.6.2.2: Login Page



Screen.6.2.3: Student Page



Screen.6.2.4: Result Page



The screenshot shows the 'Student Details' page of the KSRMCE Results Portal. The header includes logos for 'LIGHTS TO LIGHTEN', 'B+ GRADE', 'NBA Accredited (Tier - 1)', and 'UGC AUTONOMOUS'. The page title is 'KSRMCE RESULTS PORTAL' and the user is logged in as 'WELCOME, CHALLA RENU SRI'. On the left, a 'Student Dashboard' menu lists: HOME, STUDENT RESULTS, FAILED SUBJECTS, STUDENT PROFILE, and Password Change. The main content area displays the following details:

| Student Details |                 |
|-----------------|-----------------|
| Student ID:     | 200Y1A0537      |
| Student Name:   | CHALLA RENU SRI |
| Gender:         | F               |
| Date of Birth:  | 18/10/2002      |
| Phone Number:   |                 |

A 'LOGOUT' button is located at the bottom left of the dashboard menu.

Screen.6.2.5: Student Details Page

The screenshot shows the 'Change Password' page of the KSRMCE Results Portal. The header and dashboard menu are identical to the previous screen. The main content area displays a form with the following fields and a button:

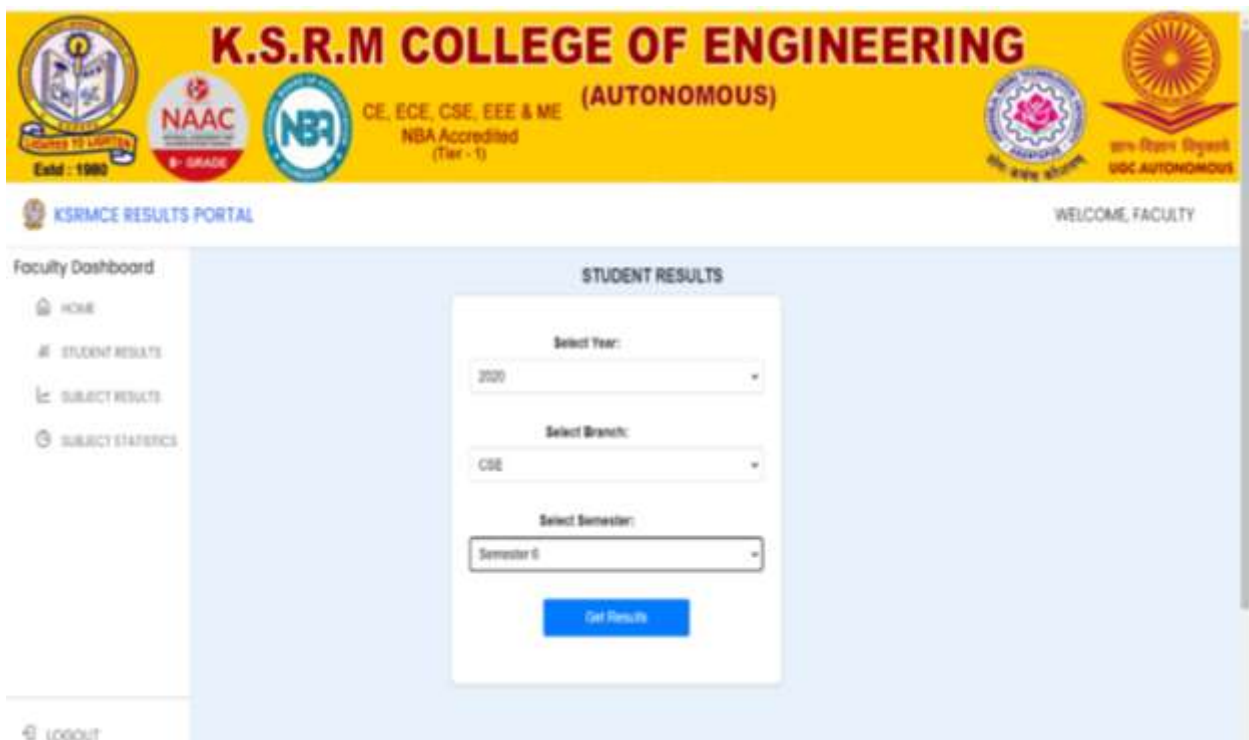
| Change Password                  |                          |
|----------------------------------|--------------------------|
| Old Password:                    | <input type="password"/> |
| New Password:                    | <input type="password"/> |
| Confirm Password:                | <input type="password"/> |
| <button>Change Password</button> |                          |

A 'LOGOUT' button is located at the bottom left of the dashboard menu.

Screen.6.2.6: Password Changing Page

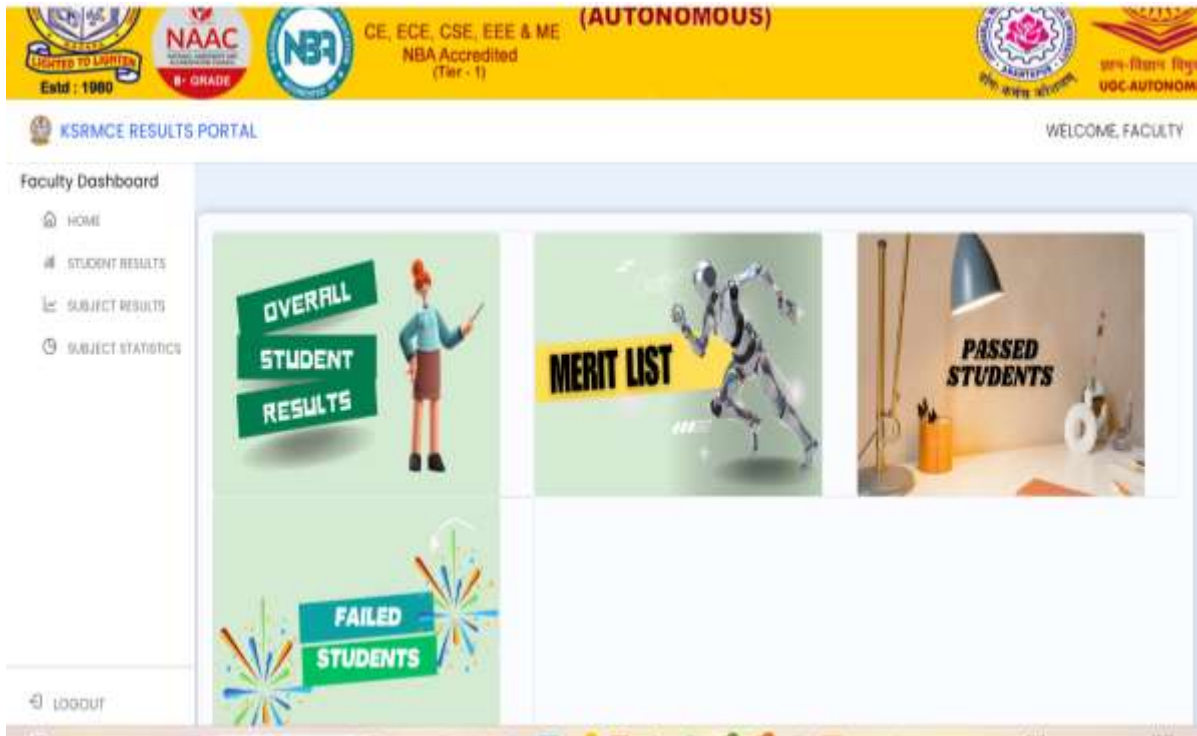


Screen.6.2.7: Faculty Page



Screen.6.2.8: Student Result Selection Page

## ONLINE RESULTS PORTAL



Screen.6.2.9: Faculty Dashboard Page

**Overall Student Results**

Student ID: 209Y1A0501 - ABBINENI GOWTHAM

| Subject ID  | Subject Name                    | Marks (Internal) | Marks (External) | Total Marks | Results | Credits | Grade |
|-------------|---------------------------------|------------------|------------------|-------------|---------|---------|-------|
| 2005A01     | Internet of Things              | 22               | 38               | 60.0        | P       | 3.0     | C     |
| 2005A02     | Data Mining                     | 21               | 33               | 54.0        | P       | 3.0     | D     |
| 2005A03     | Cryptography & Network Security | 16               | 40               | 56.0        | P       | 3.0     | D     |
| 2005A04     | Artificial Intelligence         | 21               | 30               | 51.0        | P       | 3.0     | C     |
| 2005A07     | IoT Lab                         | 28               | 28               | 56.0        | P       | 1.5     | D     |
| 2005A08     | Data Mining Lab                 | 32               | 38               | 70.0        | P       | 1.5     | B     |
| 2005A09     | Network Security Lab            | 25               | 40               | 65.0        | P       | 1.5     | B     |
| SGPA - 6.75 |                                 | 181.0            | 288.0            | 469.0       | P       | 16.5    |       |

Student ID: 209Y1A0502 - ALAMURU SAINATHA REDDY

| Subject ID | Subject Name | Marks (Internal) | Marks (External) | Total Marks | Results | Credits | Grade |
|------------|--------------|------------------|------------------|-------------|---------|---------|-------|
|------------|--------------|------------------|------------------|-------------|---------|---------|-------|

Screen.6.2.10: Overall Students Results Page

## ONLINE RESULTS PORTAL



KSRMCE RESULTS PORTAL WELCOME, FACULTY

Faculty Dashboard

- HOME
- STUDENT RESULTS
- SUBJECT RESULTS
- SUBJECT STATISTICS

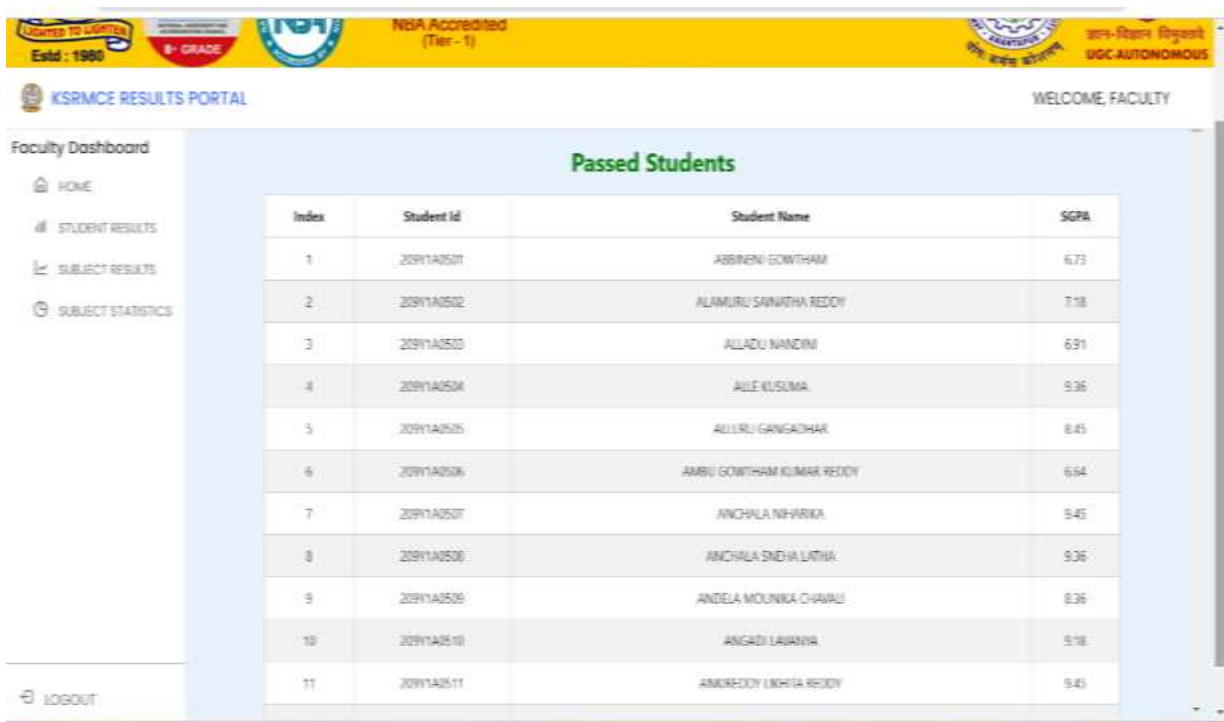
Logout

### Merit List - Top 10 Students

Select number of students: 10

| Rank | Student ID | Student Name             | SGPA |
|------|------------|--------------------------|------|
| 1    | 209Y1A05G4 | SUNKARA MOHAMMED HUSSAIN | 9.0  |
| 2    | 209Y1A0557 | GANGIRINTA MADHAVI       | 9.82 |
| 3    | 209Y1A0582 | BARU UMA MAHESWARI DEVI  | 9.73 |
| 4    | 209Y1A0513 | AVULA MANI               | 9.64 |
| 5    | 209Y1A0527 | BOLLI NEELIMA            | 9.64 |
| 6    | 209Y1A0575 | KAKARLA SAI KRUPA        | 9.64 |
| 7    | 209Y1A0585 | KOTLAGIRINTLA NARASIMH   | 9.64 |
| 8    | 209Y1A05F3 | SHAIK NASSERUDDIN        | 9.64 |
| 9    | 209Y1A05F6 | SHAIK RIFAQULMA          | 9.64 |
| 10   | 209Y1A05F8 | SHAIK SUMAYYA SADAF      | 9.64 |

Screen.6.2.11: Merit List Page



KSRMCE RESULTS PORTAL WELCOME, FACULTY

Faculty Dashboard

- HOME
- STUDENT RESULTS
- SUBJECT RESULTS
- SUBJECT STATISTICS

Logout

### Passed Students

| Index | Student Id  | Student Name             | SGPA |
|-------|-------------|--------------------------|------|
| 1     | 209Y1A05D1  | ABBINENI GOWTHAMI        | 6.73 |
| 2     | 209Y1A05D2  | ALAMURU SAINATHA REDDY   | 7.18 |
| 3     | 209Y1A05D3  | ALLADI NANDINI           | 6.91 |
| 4     | 209Y1A05D4  | ALLE KUSUMA              | 9.36 |
| 5     | 209Y1A05D5  | ALLURI GANGADHAR         | 8.45 |
| 6     | 209Y1A05D6  | AMRU GOWTHAM KUMAR REDDY | 6.64 |
| 7     | 209Y1A05D7  | ANCHALA NIKHILAKA        | 9.45 |
| 8     | 209Y1A05D8  | ANCHALA SNEHA LATHA      | 9.36 |
| 9     | 209Y1A05D9  | ANDELA MOUNIKA CHANAU    | 8.36 |
| 10    | 209Y1A05D10 | ANGADI LAVANNA           | 9.18 |
| 11    | 209Y1A05D11 | ANDREDDY LOKHITA REDDY   | 9.45 |

Screen.6.2.12: Passed Students Page



KSRMCE RESULTS PORTAL

WELCOME, FACULTY

Faculty Dashboard

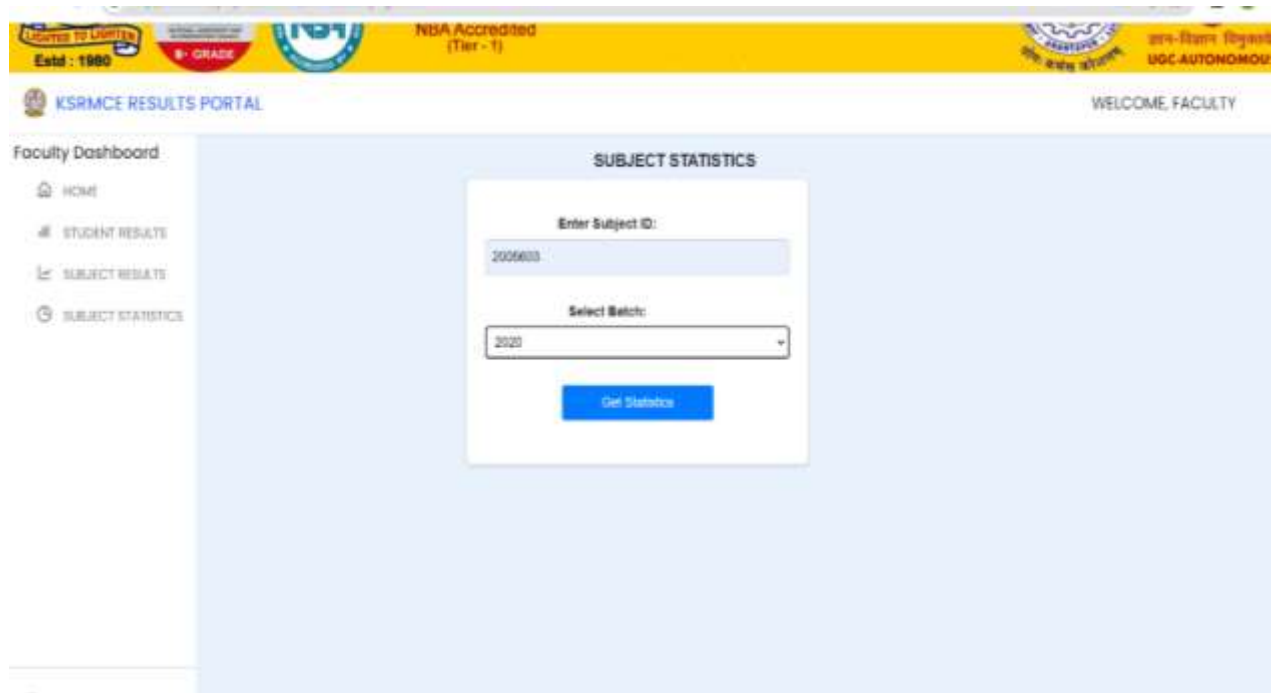
- HOME
- STUDENT RESULTS
- SUBJECT RESULTS
- SUBJECT STATISTICS

### Failed Students

| Index | Student Id | Student Name                           | SGPA |
|-------|------------|--|------|
| 1     | 20Y1A0566  | GURRAM ANIL KUMAR                      | 6.44 |
| 2     | 20Y1A0NC3  | PAULUPPELI ANRUDH REDDY                | 6.57 |
| 3     | 20Y1A0506  | RACHAGALLA SIVITHA                     | 6.78 |
| 4     | 20Y1A0572  | SHAK NAASAR MOHEDDIN                   | 5.88 |
| 5     | 20Y1A0577  | SHAK SALMAN                            | 6.11 |
| 6     | 20Y1A0514  | VENKATAPUJA VENKATA JAGADEESHWAR REDDY | 6.5  |
| 7     | 21Y1A0505  | GONDATI KOUNIK KUMAR REDDY             | 6.88 |
| 8     | 21Y1A0520  | YENNAM PAVAN KUMAR REDDY               | 7.7  |

Logout

Screen.6.2.13: Failed Students Page



KSRMCE RESULTS PORTAL

WELCOME, FACULTY

Faculty Dashboard

- HOME
- STUDENT RESULTS
- SUBJECT RESULTS
- SUBJECT STATISTICS

### SUBJECT STATISTICS

Enter Subject ID:

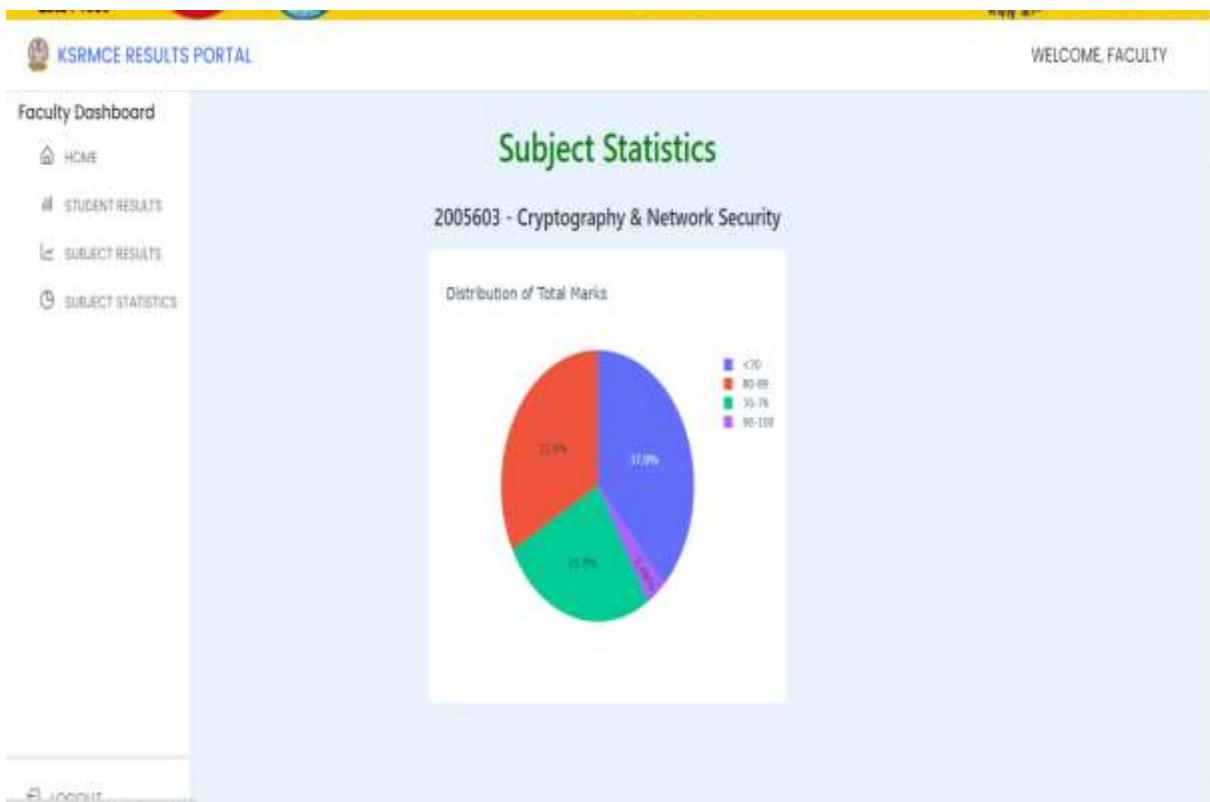
Select Batch:

Get Statistics

Screen.6.2.14: Subject Statistics Selection Page



Screen.6.2.15: Pass/Fail Statistics Page

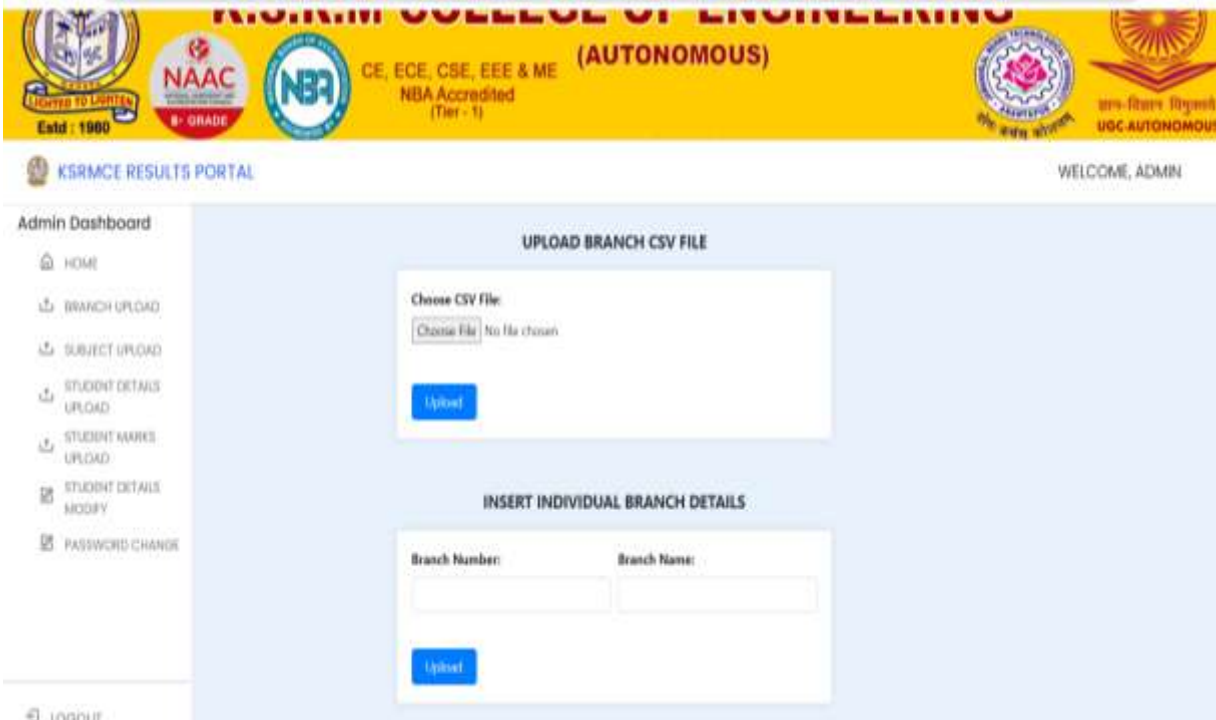


Screen.6.2.16: Marks Distribution Statistics





Screen.6.2.17: Admin Dashboard



Screen.6.2.18: Branch Upload Page

The screenshot displays the 'KSRMCE RESULTS PORTAL' Admin Dashboard. The header includes the college name 'KSRM COLLEGE OF ENGINEERING (AUTONOMOUS)', accreditation logos (NAAC, NBA, UOC), and the text 'CE, ECE, CSE, EEE & ME NBA Accredited (Tier - 1)'. The left sidebar lists menu items: HOME, BRANCH UPLOAD, SUBJECT UPLOAD, STUDENT DETAILS UPLOAD, STUDENT MARKS UPLOAD, STUDENT DETAILS MODIFY, PASSWORD CHANGE, and LOGOUT. The main content area is titled 'WELCOME, ADMIN' and contains two sections: 'UPLOAD SUBJECT CSV FILE' with a 'Choose CSV File' button and an 'Upload' button, and 'INSERT INDIVIDUAL SUBJECT DETAILS' with input fields for 'Enter Subject Code:', 'Enter Subject Name:', and 'Enter Subject Credits:'.

Screen.6.2.19: Subject Upload Page

This screenshot shows the same Admin Dashboard as the previous one, but the main content area is titled 'WELCOME, ADMIN' and features the 'UPLOAD STUDENT DETAILS CSV FILE' section. It includes a 'Choose CSV File' button and an 'Upload' button. The 'INSERT INDIVIDUAL SUBJECT DETAILS' section with its input fields remains visible below.

Screen.6.2.20: Student Details Upload Page



The screenshot shows the 'KSRMCE RESULTS PORTAL' interface. The header includes logos for NAAC (B+ Grade), NBA (Tier-1), and UGC Autonomous, along with the text 'KSRMCE COLLEGE OF ENGINEERING (AUTONOMOUS)'. The left sidebar lists 'Admin Dashboard' options: HOME, BRANCH UPLOAD, SUBJECT UPLOAD, STUDENT DETAILS UPLOAD, STUDENT MARKS UPLOAD, STUDENT DETAILS MODIFY, and PASSWORD CHANGE. The main content area is titled 'UPLOAD MARKS' and contains two file upload sections: 'Upload Internal Marks CSV File' with a 'Choose File' button and 'Upload External Marks CSV File' with a 'Choose File' button. Below these is a 'Select Semester' dropdown menu set to 'Semester 6' and an 'Upload' button. A 'WELCOME, ADMIN' message is in the top right, and a 'LOGOUT' link is in the bottom left.

Screen.6.2.21: Marks Upload Page

The screenshot shows the 'KSRMCE RESULTS PORTAL' interface. The header is identical to the previous screen. The left sidebar is also identical. The main content area is titled 'EDIT STUDENT DETAILS'. It features a search section with 'Enter Student ID:' and a 'Search' button. Below this is a form with fields for 'Name' (containing 'CHENNLURU JAGADEESW'), 'Gender' (containing 'M'), and 'Phone Number'. An 'Update' button is at the bottom of the form. The 'WELCOME, ADMIN' message and 'LOGOUT' link are also present.

Screen.6.2.22: Student Details Modify Page

# **CHAPTER 7**

## **CONCLUSION & FUTURE ENHANCEMENTS**

## CHAPTER 7

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## CHAPTER 7

### 7. CONCLUSION & FUTURE ENHANCEMENTS

#### 7.1 Conclusion:

In summary, the Online Result Portal offers a revolutionary solution for educational institutions, introducing a paradigm shift towards enhanced efficiency, accuracy, and accessibility in result processing. Through the automation of manual tasks and the incorporation of a user-centric design, this system ensures a seamless experience for students, faculty, and administrators. Its wide-ranging features, such as result verification, personalized access, and analytical tools, empower stakeholders to navigate the academic evaluation process with unprecedented ease and precision. Furthermore, the system's adaptability and commitment to continuous improvement position it as a pivotal asset for institutions striving for excellence in result management and analysis. Overall, this project not only meets the immediate needs of result processing but also establishes a robust foundation for ongoing advancements in academic evaluation, cementing its status as a cornerstone of success for Edu institutions.

In addition, the Online Results Portal provides a secure platform for storing and managing result data, ensuring data integrity and confidentiality. The system's user-friendly interface and intuitive navigation enhance user experience and promote efficient interaction with the platform. Moreover, its scalability allows for seamless integration with existing systems and future expansion to accommodate evolving institutional needs. By leveraging technology to streamline result-related tasks, this system enables educational institutions to allocate resources more effectively and focus on enhancing the overall learning experience for students.

#### 7.2 Future Enhancements:

- ✓ Integration with Learning Management Systems (LMS): Incorporating the system with LMS platforms can provide a more holistic view of student performance by linking result data with course materials and assessments.
- ✓ Predictive Analytics: Implementing predictive analytics can help identify students at risk of academic failure early on, allowing for timely intervention and support.
- ✓ Enhanced Reporting and Visualization: Improving the system's reporting capabilities with interactive dashboards and visualizations can provide deeper insights into student performance trends and patterns.

- ✓ Mobile App Development: Developing a mobile application for the system can enhance accessibility, allowing users to access results and analytics on the go.
- ✓ Integration with Student Information Systems (SIS): Integrating the system with SIS can streamline data management processes and ensure consistency across different academic systems.
- ✓ Gamification: Introducing gamification elements can incentivize student engagement with the system, such as earning badges for academic achievements.
- ✓ Alumni Portal: Creating an alumni portal within the system can help maintain a connection with former students and track their post-graduation achievements.
- ✓ Automated Notifications: Implementing automated notification systems can alert stakeholders about important updates, deadlines, or changes in result status.
- ✓ Student Feedback Mechanism: Adding a feature for students to provide feedback on the system's usability and functionality can inform future enhancements and improvements.
- ✓ Enhanced Security Measures: Continuously updating and strengthening security measures to safeguard sensitive result data against potential threats or breaches.
- ✓ Integration with Academic Planning Tools: Integrating with academic planning tools can facilitate course selection, academic advising, and degree planning based on students' performance and results.
- ✓ Integration with Student Information Systems (SIS): Integrating seamlessly with SIS platforms can streamline data exchange and ensure consistency across different administrative systems.

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(AUTONOMOUS)






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(Approved by AICTE, New Delhi & Affiliated to JNTUA, Ananthapuramu)KADAPA – 516

005 (A.P.)

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**Bio-Data**

| Roll No    | Name of the Student         | Student/ Father WhatsApp Nos | Address     | Fb id/Insta. Id   | Photo   |
|------------|-----------------------------|------------------------------|-------------|---|---|
| 209Y1A0542 | CHENNURU JAGADEESWAR REDDY  | 9553584470                   | Kadapa      | <a href="https://www.instagram.com/c_jagadeeswar_reddy/">https://www.instagram.com/c_jagadeeswar_reddy/</a> |    |
| 209Y1A0537 | CHALLA RENU SRI             | 7981809316                   | Kadapa      | <a href="https://www.instagram.com/renusri1810/">https://www.instagram.com/renusri1810/</a>                 |   |
| 209Y1A0541 | CHENNU REDDY RAVINDRA KUMAR | 9391445109                   | Badvel      | <a href="https://www.instagram.com/reddy_ravindra2003/">https://www.instagram.com/reddy_ravindra2003/</a>   |  |
| 209Y1A0552 | DUDYALA VASUDEVA            | 9392514972                   | Madanapalli | <a href="https://www.instagram.com/_dnr_vasudeva.16/">https://www.instagram.com/_dnr_vasudeva.16/</a>       |  |
| 209Y1A0558 | GOCHI YOGA LAKSHMI          | 7207375590                   | Kadapa      | <a href="https://www.instagram.com/yoga_lakshmi_gochi/">https://www.instagram.com/yoga_lakshmi_gochi/</a>   |  |