AUTOMATED PLATFORM FOR UNDERGRADUATE ADMISSIONS

Project Proposal

Submitted by

Waleed Ahmed
[1734-2021]

Dua Rahim
[1597-2021]

Zoya Sayeed
[1696-2021]

Supervisor
Sir Iqbal Uddin Khan

Supervisor Signature

Department of Computer Science,

Hamdard University, Karachi.

1. Introduction

This project aims to address a solution for Admissions Flow in FEST. The proposed solution focuses on Reliability, Flexibility , Security, Integrity of Admission Flow which has the potential to significantly improve the complication occurs as a Manual working for Admissions.

☐ **Identifying the problem**

As HU_ Admission team faces difficulties in manual system managing the Team work for Admissions and Enrollment.

☐ **Propose a solution**

Designing a software that can reduce barrier faced by Admission team.

☐ **Implement the solution**

Build a functional software that is useful with scrum methodology to work on Admission Flow easier.

☐ **Evaluate the impact**

Assess the effectiveness and benefits of the proposed solution

2. Objective

☐ **Enhance Accuracy**

Ensures that all the data is correct and minimize human errors in data entry and processing also, Carefully review each application to verify completeness and accuracy.

☐ **Consistency**

Apply admission criteria uniformly across all applicant to ensure fairness.

☐ **Efficiency**

Reduce the time and efforts required to process applications and inquiries promptly to avoid any mishap**.**

☐ **User-Friendly Interface**

Allowing applicants to submit and track their applications online from anywhere anytime.

☐ **Data Management and Scalability**

Improve the organization, storage, and retrieval of application data. Handles larger volume of applications without a corresponding increase in workload.

☐ **Transparency**

Provide real-time updates and notification to applicants about their application status. Keep all document and data organized and easily accessible.

☐ **Compliance and Services**

Ensures that the process adheres to all relevant policies and regulations. Maintain clear communication with applicants, addressing any concerns or query they may have.

☐ **Experience and Evaluations**

Enhance the overall experience for applicant as well as administrative staff.

3. Problem Description

The Admission Flow Automation project aims to streamline and enhance the efficiency of the admission process in educational institutions. This project will develop a comprehensive, user-friendly system that automates the various stages of admission, reducing manual intervention, minimizing errors, and improving the overall applicant experience. The Admission Flow Automation project aims to revolutionize the way educational institutions handle admissions by leveraging technology to create a streamlined, error-free, and applicant-friendly system. This project not only benefits the institution by optimizing its resources but also enhances the overall experience for applicants, making the admission process smooth and hassle-free.

4. Methodology

SCRUM _ Methodology

☐ **Sprints**

The project is divided into short iterations called sprints, typically lasting 2-4 weeks.

☐ **Daily Stand-up Meetings**

The team gathers daily to discuss progress, obstacles, and plans for the day.

☐ **Sprint Planning**

At the beginning of each sprint, the team selects a set of tasks from the product backlog to complete.

☐ **Sprint Review**

At the end of each sprint, the team demonstrates the completed work and gathers feedback from stakeholders.

☐ **Sprint Retrospective**

The team reflects on the sprint, identifying what went well and what could be improved.

5. Project Scope

1. **Vulnerability Assessment:** Conduct thorough automated assessments to identify and prioritize vulnerabilities in the target systems, ensuring a comprehensive understanding of potential security risks.
2. **Patch Management**: Facilitate informed decision-making for administrators by providing insights into available patches and streamlining the patch application process, thereby addressing identified vulnerabilities promptly.
3. **Assessment Reporting**: Generate detailed and actionable assessment reports, highlighting vulnerabilities and providing recommendations for remediation, ensuring that stakeholders have a clear understanding of the security posture.
4. **Compliance Standards:** Implement compliance monitoring mechanisms aligned with industry standards to ensure that organizations meet regulatory requirements and adhere to best practices in cybersecurity.
5. **User Management:** Establish a system that logs and monitors user activities, configurations, and changes, maintaining an audit trail for oversight and compliance. Implement secure user management with role-based access control and authentication mechanisms to ensure proper access restrictions.

6. Feasibility Study

This project proposes a comprehensive solution to address a critical need within the Admission Team. The proposed system leverages technology to enhance the efficiency and accuracy of our admissions process. The outlined phases encompassing system design, development, integration, testing, and deployment are structured to align with the objectives and anticipated timelines.

Risks Involved:

1. **Automation Challenges:** The complexity of developing a system for automated paper generation may pose challenges.
2. **Data Availability:** The assumption of a diverse question bank relies on the availability of comprehensive and varied questions.

Mitigation Strategies:

1. **Iterative Development:** Implementing an iterative development approach allows for continuous refinement of system based on testing and feedback.
2. **Collaboration with Educational Institutions:** Partnering with educational institutions ensures access to a wide range of quality questions, mitigating potential data availability issues.

Resource Requirement:

1. **Development Servers:** Adequate servers for hosting and testing during the development phase.
2. **Cloud Services:** Utilization of cloud services for scalability and efficient resource management.

Human Resources:

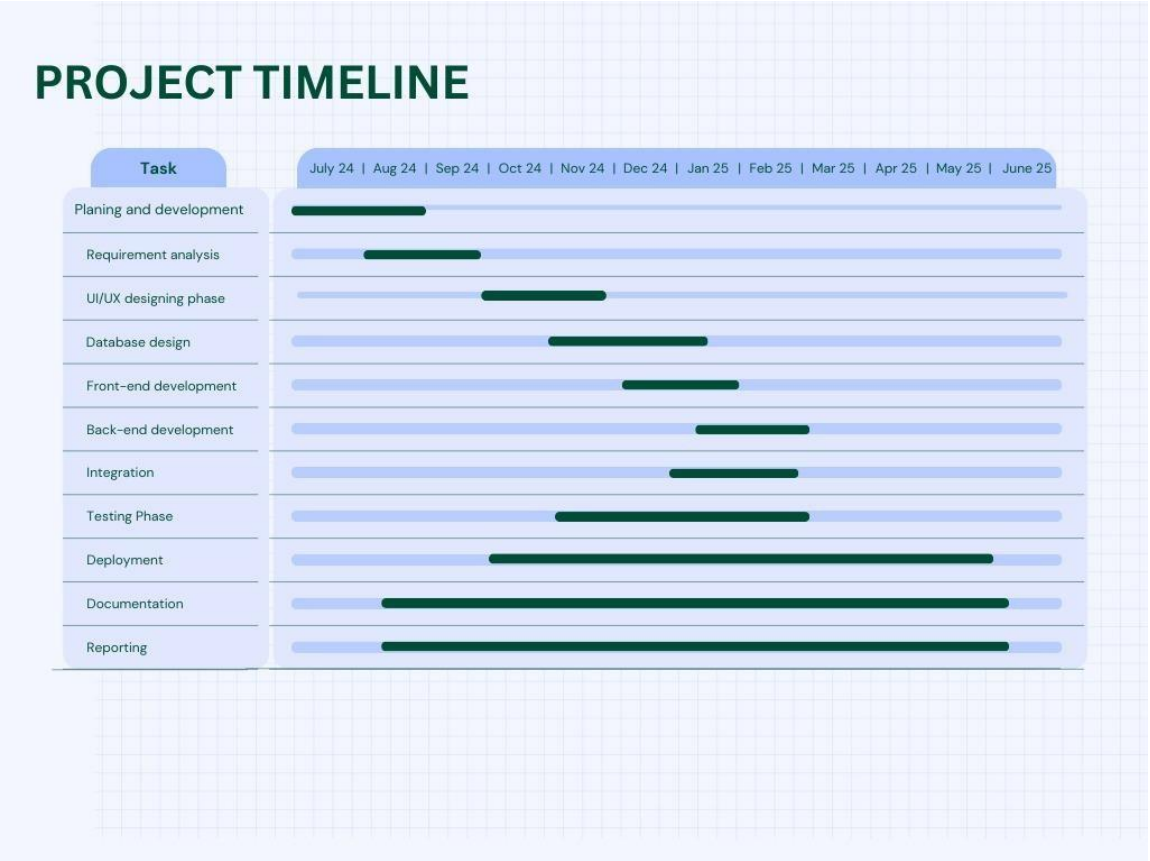
1. **Development Team:** Skilled developers for system development and paper generation integration.
2. **Quality Assurance Team:** Testing and debugging require a dedicated quality assurance team.
3. **Educational Collaborations:** Collaborating with educational institutions for question bank access.

Time Resources:

1. **Project Timeline:** Adherence to a well-structured project timeline ensures efficient use of time resources.
2. **Timely Feedback:** Timely feedback loops during the development and testing phases facilitate swift issue resolution.

7. Planning

GANTT CHART



8. Solution Application Area

The Automated Admission Flow System for higher education institutions offers significant value in the academic sector. Targeting universities, colleges, and training centers, the system enhances operational efficiency by automating the entire admission process. It ensures accuracy and fairness through objective data validation, adapts seamlessly to different program requirements, and provides valuable data-driven insights for administrators. The system's scalability caters to institutions of varying sizes, ultimately contributing to a more effective, transparent, and streamlined admission process.

9. Tools/Technology

- Frontend and backend language.
- Visual Studio Code
- Html
- CSS
- JavaScript
- React JS / Next JS
- Node JS / Express JS
- Tailwind CSS
- Material UI
- MongoDB
- Firebase
- Figma

10. Responsibilities of the Team Members

R	Responsible
A	Accountable
C	Consulted
I	Informed

Task	Waleed Ahmed	Dua Rahim	Zoya Sayeed	Sir Iqbal Uddin
GUI Design	R	A	A	I,C
Integration	A	R,A	R	I,C
Testing	R	R	A	I,C
Documentation	A	R,A	R,A	I,C
Feedback	R	R	R	I,C

11. References

- https://www.creatrixcampus.com/student-admission-management-system
- https://heiapply.com/education-admissions/admissions-software-higher-education/
- https://heiapply.com/education-admissions/admissions-software-higher-education