

# ICT 334 2.0

## Software Development Project Project Proposal

### Enhancing Student Performance and Evaluation System for Improved Academic Decision Making



AS2019921 - H.A.N.S.Hettiarachchi  
AS2019953 - K.M.S.I. Rathnayake

# Introduction

The student performance and evaluation system of a university plays a crucial role in ensuring that students are able to track their academic progress, make informed decisions about their subject selection, and receive timely feedback on their performance. However, many universities face challenges in designing and implementing an effective student performance and evaluation system that meets the needs of their students. In this context, this proposal aims to address the limitations and shortcomings of the current system and propose an improved version that includes key features to support students' academic performance and decision-making.

## Problem Statement

The current student performance and evaluation system of the university has several limitations that hinder students' academic progress and decision-making. The system lacks critical features such as automatic calculation of uncompleted credit values, subject suggestions, notifications for result updates, and secure login. Additionally, the system does not provide students with adequate information on repeated subjects, subject and lecture details, and performance evaluation graphs. These limitations make it difficult for students to make informed decisions about their academic progress and subject selection, resulting in poor academic performance and delayed graduation.

## Objectives

The main objective of the proposed improved student performance and evaluation system is to provide students with an efficient and user-friendly platform that supports their academic progress and decision-making. The specific objectives are:

1. To enable students to create a user account using their university email and access the system securely.
2. To provide students with automatic calculation of their uncompleted credit values and suggest suitable subjects to complete their credits based on their subject GPA.
3. To provide students with a graphical representation of their current GPA, including their full GPA and subject GPA.
4. To provide students with a performance evaluation graph to track their academic progress over time.
5. To provide students with a list of available subjects for each semester, including optional courses for each main subject stream.
6. To enable students to search for their subject results immediately and receive notifications when the result board gets updated with new results.
7. To provide students with the facility to apply for re-correction of their examination results.
8. To notify students when they are selected for special degree programs.
9. To provide students with subject and lecture details, including contact information, to enable them to seek guidance and clarification.
10. To notify students about any repeated subjects they need to prepare for before their examination registration.

## Scope

The scope of the project is to develop an improved version of the Student Performance and Evaluation System to support students' academic performance. The system will allow students to create a user account by entering their university email and provide an automatic result about their uncompleted credit value with respect to their main subjects' stream and suggestions for subject selection to achieve their uncompleted credits. It will also provide a full graphical representation of current GPA with full GPA and subject GPA, and give students an idea about their performance evaluation through a graph. The system will show the available subject list for each semester with the optional courses for each main subject stream and allow students to do an immediate search for the result of the subject they need to check. It will notify students when the result board gets updated after the addition of new results of subjects by sending an email and allow students to apply for re-corrections through the system. The system will also inform students when they are selected for special degree programs and let students view the subject details with the assigned lecture details and contact details. Finally, it will notify the student about their repeated subjects.

## Features

1. User account creation and secure login using university email.
2. Automatic calculation and display of uncompleted credit values for students.
3. Automatic suggestions for subject selection to complete uncompleted credits based on subject GPA.
4. Full graphical representation of current GPA with full GPA and subject GPA.
5. Performance evaluation of students through graphical representation.
6. Display of available subject list for each semester with optional courses for each main subject stream.
7. Immediate search functionality for results of specific subjects.
8. Automatic notifications to students via email when the result board is updated.
9. Ability for students to apply for re-corrections through the system.
10. Notification to students when they are selected for special degree programs.
11. Subject details display, including assigned lecture details and contact information for students to directly contact relevant instructors.
12. Repeated subjects display, especially compulsory subjects, according to previous semester results before examination registration.
13. These features aim to address the issues and limitations of the current student performance and evaluation system of the university and provide students with a more comprehensive and user-friendly system to track their academic progress and make better decisions about their academic choices.

# Programming Stack

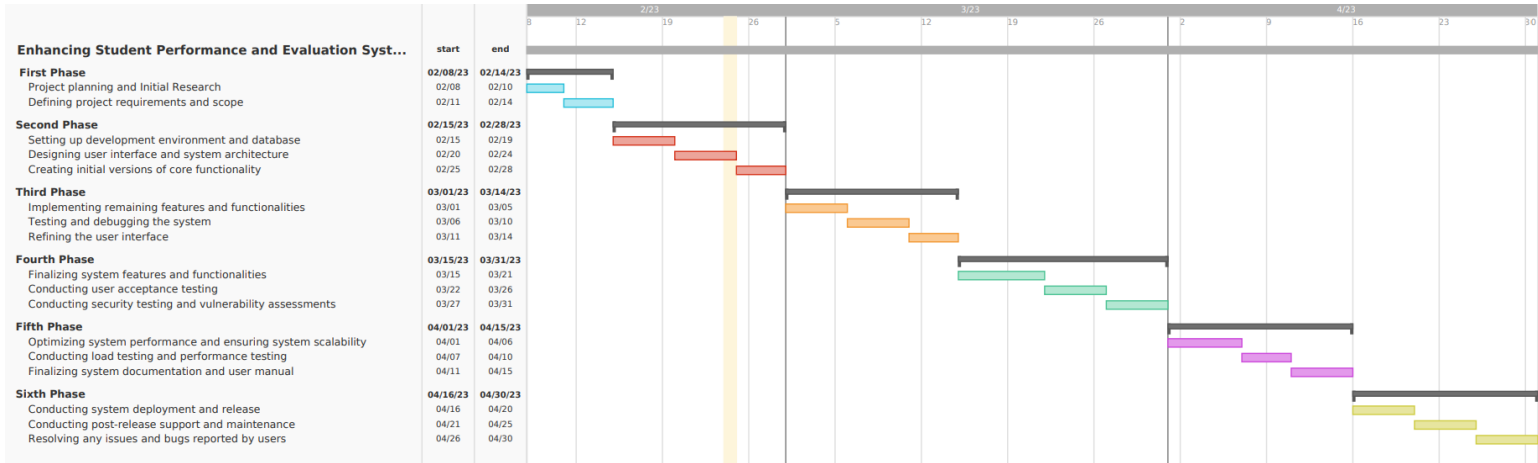
- 1. Node JS
- 2. HTML
- 3. CSS
- 4. JavaScript
- 5. React JS
- 6. MySQL

## Target Audience

The target audience for the proposed improved version of the student performance and evaluation system includes:

- 1. Students: The system will primarily benefit the students at the university, as they will have access to a more user-friendly and comprehensive platform to track their academic progress, select appropriate subjects, and achieve their academic goals.
- 2. Faculty: The system will also benefit faculty members who can use it to track students' academic progress, view results, and provide appropriate guidance and support.
- 3. Administrators: The system will benefit university administrators who can use it to monitor student performance, track academic outcomes, and identify areas for improvement.
- 4. Stakeholders: Other stakeholders, such as parents, alumni, and employers, may also benefit from the system's enhanced functionality, as they can use it to monitor students' academic progress and evaluate their potential as future employees or leaders.

## Time Frame



## **Conclusion**

In conclusion, the current student performance and evaluation system at the university has several limitations that hinder students from making informed decisions about their academic performance. The proposed improved version of the system aims to provide a more comprehensive and user-friendly platform that supports students in tracking their academic progress, selecting appropriate subjects, and achieving their academic goals. The implementation of the system will require careful planning, stakeholder engagement, and budget management to mitigate technical, user acceptance, and budget risks. However, the potential benefits of the system, including increased student engagement and improved academic outcomes, justify the investment in its development and implementation.