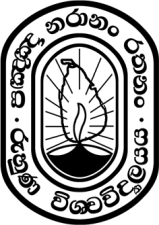
**ICT1222 - Database Management Systems Practicum Mini Project**



**Department of Information and Communication Technology**

**Faculty of Technology**

**University of Ruhuna**

**Database Management Systems Practicum**

**ICT 1222**

**Assignment 02 – Mini Project**

**Group 08**

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1. **Introduction**

1.1 Purpose

The purpose of creating a document is to define the functional and non-functional requirements for the development of the TECLMS-TECMIS.This document will serve as a guide for the development team

1.2 Scope of Management System

The TECLMS-TECMIS system helps manage student registration, enrollment, course information, grades, attendance and medical submissions. It will have different access levels for admin, Dean, Lecture, Technical officer, and student

Each user has specific which are:

* Keeping student records up to date
* Managing course information
* Handling academic record
* Organizing and maintaining data
* Managing faculty and staff information
* Handling finances and budgets

1. **System Overview**

This system overview gives stakeholders a clear understanding of the TECLMS-TECMIS system, including its purpose, main features, and security considerations. It provides a basic summary before going into more detailed project documentation

2.1 Overall Description

The TECLMS-TECMIS database management system is a complete software solution made to manage student data at Ruhuna University. The project’s goal is to simplify and automate various administrative and academic tasks, helping the university offer better education and services to its students

2.2 Product Function

There are five common features of the TECLMS-TECMIS Student Management system those are:

1. Admin

* Create, update, and delete user account for administration, lectures and stuff members
* Reset password and manage accounts access
* Add, edit and delete student record
* Update course information, including course schedules
* Manage academic records, including grades, transcript, and attendance

1. Dean

* Review and approve new academic programs, courses, or curriculum changes.
* Monitor and assess the quality and effectiveness of the existing academic program
* Manage faculty and staff assignments and workload
* Develop, update, and enforce academic policies and standards.
* Approve changes to faculty schedules and office hours.

1. Lecture

* Access and manage the course information, including course syllabi, schedules, and materials
* View student’s enrollment and student’s activities
* Communicate with student about missing assignments, poor attendance, or grades that need improvement
* Provide feedback to the dean on student performance and course effectiveness
* Update marks as required and manage special cases

1. Technical officer

* Maintain TECLMS-TECMIS database management system
* Ensure system availability and reliability
* Attendance data entry updated
* Enter data related to students who have submitted medical certificates
* Provide lecturers with accurate attendance records to help them determine student eligibility for exams.
* Regularly backup the system data to prevents loss of academic records.

1. Student

* View Continuous assessment marks and final exams marks
* View overall grades and GPA for each course and semester
* View attendance summary for each course
* Check eligibility for final exams based on the attendance and CA marks
* View medical status if submitted, including its effect on attendance and marks.
* Receive notifications from lecturers, deans, or the admin regarding class updates, exam schedules, or changes in attendance status.

2.3 User Characteristics

The system will be used by:

* Admins with technical knowledge of the database.
* Faculty members (Dean, Lecturers) with moderate computing skills.
* Technical Officers with specific roles in managing attendance.
* Students who will access results and attendance.

**3.Function Requirements**

3.1 User Management

User management in the TECLMS-TECMIS student management system refers to the processes involved in managing user accounts and permissions for different system roles, such as student, lecturers, administrators and technical officers.

* Create, update and delete user accounts for different roles.
* Allow password resets and account recovery features for all users.
* Store and manage user profiles with personal and academic information.
* Monitor user activity logs to track login attempts, profile changes, and system access history.
* Provide access levels based on user roles, with permissions customized for each role.

3.2 Attendance Management

3.3 Mark Management

3.4 Result Management

3.5 Medical Record

1. **Non-Functional Requirements**

4.1 Performance

4.2 Reliability

4.3 Security

4.4 Usability

**5. Conclusion**