



Department of Information and communication Technology
Faculty of Technology
University of Ruhuna

System Requirements Specification

Database Management System Practicum

ICT1222

Assignment 02 – Mini Project

Group 19

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01. Introduction

1.1 Purpose

This document outlines the requirements for the Student Data Management System designed for the Faculty of Technology. The system aims to manage student details, marks in exams, attendance, course details and result management effectively.

1.2 Scope of Management System (TECMIS)

The Faculty of Technology requires an efficient system for managing student details, Student marks, Student attendance and result management. The system is in the one admin, one Dean, many lecturers, many Technical Officers and Students. Each of the users has specific authorities in this TECMIS system and enabling efficient tracking and management of academic information.

1.3 Abbreviations

CA- Continuous Assessment

CGPA- Cumulative Grade Point Average

SGPA- Semester Grade Point Average

CA -Continuous Assessment

DBMS- Database Management System

02.System Overview

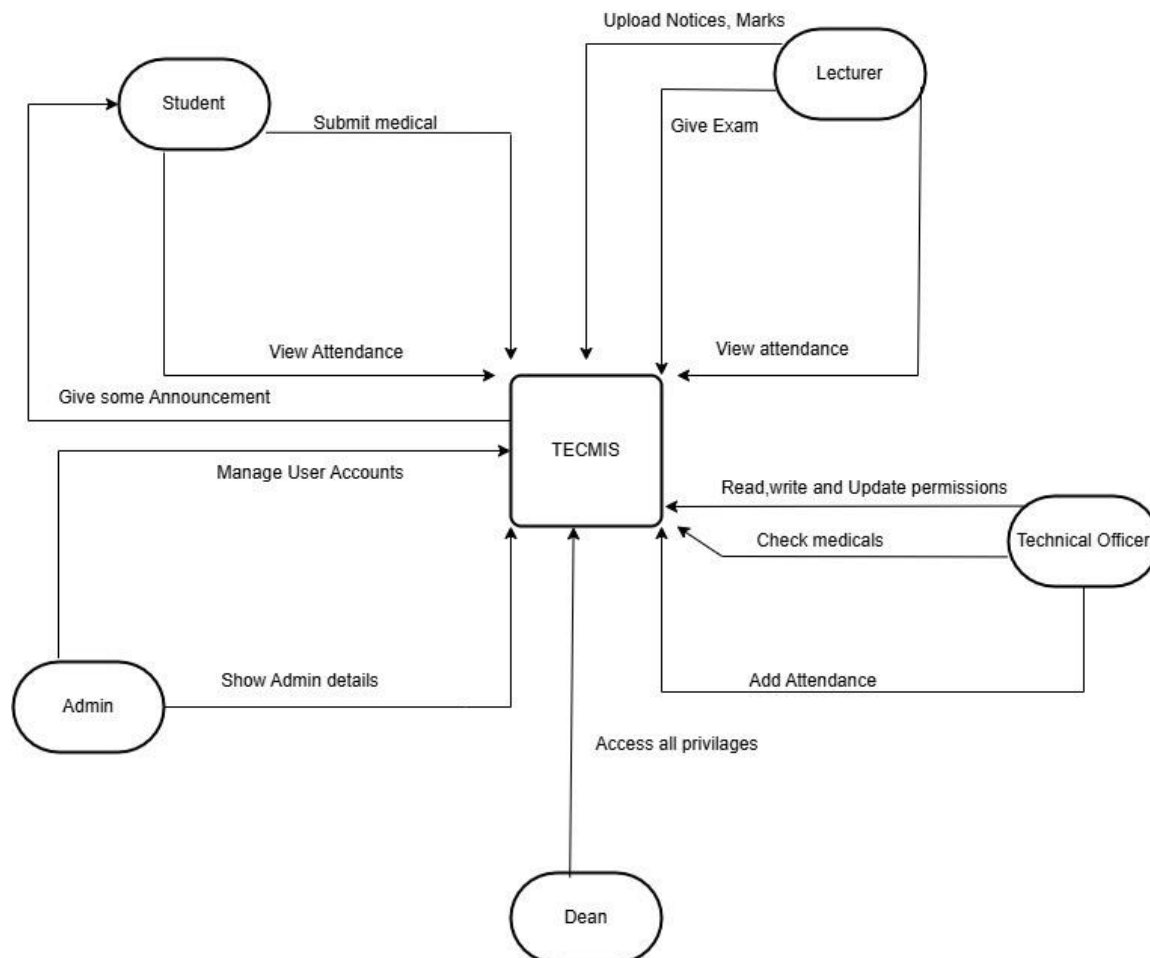
2.1 Overview of the TECMIS system

TECMIS database management system is a comprehensive software solution designed to efficiently manage student-related data at Faculty of Technology. It allows for efficient management of student records, course details, attendance, and marks.

The TECMIS Provide:

- Course Management
- Attendance Management
- Marks Management
- Users Management
- Eligibility and Medical Management

2.2 Context Diagram



03. Functional Requirements

There are five common features of the TECMIS Student Management system. Database design such as.

1. Admin
2. Dean
3. Lecturer
4. Student
5. Technical Officer

3.1 Functional Requirements of Admin

In a TECMIS database management system, the administrator's function needs usually center on system administration, user management.

- Admin have all privileges with grant option.
- Ability to create , modify and delete User accounts in TECMIS System.
- Manage all tables in database.

3.2 Functional Requirements of Dean

A Dean in a TECMIS database management system usually has administrative responsibility for managing faculty, Students records and course units. Dean should be able to make effective decisions based on TECMIS DBMS.

- Access and view Student details, Marks, attendance and Course units.
- Check Student marks for quizzes, assessments, mid-exam, final exams in each courses.
- Review student's eligibility based on attendance and CA marks.

3.3 Functional Requirements of Lecturer

A Lecturer should be able to related their interactions with students, course management, marks management and other academic activities.

- Enter Student marks for quizzes, assessments, mid-semester and final exams.
- Update Student marks.
- Check eligibility based on attendance and mark.

3.4 Functional Requirements of Student

Student in TECMIS DBMS have limited functional requirements but access specific features related to their academic journey.

- Log in securely to the system using their credentials
- Ability of view personal attendance and marks.
- Ability of submit the medical leave reports.
- Search courses and register the each courses and exams.
- View grade and CGPA and SGPA for each courses.

3.5 Functional Requirements of Technical Officer

A Technical Officer in TECMIS DBMS usually has ability to maintenance, handle operations and technical support of the system.

- Maintain TECMIS database management System
- Create attendance report of students including Medical leave report
- Update course units in system.

04. Non-Functional Requirements

4.1 Security

- Provide privileges with grant option for each users.
- Protect data from Unauthorized access.

4.2 Performance

- System Can be handle simultaneous user access.
- Quick response to user queries and action.

4.3 Maintainability

- Easy to update and maintain

4.4 Efficiency

- Quick response to user queries and actions.