SOFTWARE REQUIREMENT SPECIFICATIONS

PROJECT TOPIC: GCIT Mark Compiler

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I. Introduction

Purpose

The aim of my project is to develop an android based application so that the tutors can use their phone to calculate and compile the marks of students.

Objective of my application are:

- To develop an application where the teachers of GCIT can calculate and compile the marks of students using their phone.
- To replace the old system of calculating and storing the marks of students. To reduce the workload of the teachers of GCIT.
- To reduce substantial chunk of workload and make working life easier for the tutors of GCIT.
- To provide the tutors with a single platform for calculating and compiling the mark of the students.

Scope

User Scope:

The scope of my project is limited to Gyelpozhing College of Information Technology. The project will mainly focus on calculating and compiling the marks of students of GCIT by the tutors.

System Scope

1. Add student
2. Enter mark
3. Edit
4. Share
5. View result

II. Requirement

Functional Requirement

1. **Add student**
   Tutors can add student to their respective classes before compiling the marks.
2. **Enter result**
   Tutors can add marks of the student to be compiled.
3. **Edit**
   If tutors have made mistake they can change and update the marks.
4. **Share**
   Tutors can share the result of particular student on various social media (WhatsApp, Messenger, Facebook and etc.)
5. **View result**
   Tutors can view the result of the student by entering the student_id and Course

Non Functional Requirement

1. Usability

   This application will be build using graphical interface with clear text and information making it user friendly where user will be able to use interface within short amount of time.

2. Supportability

   The app can be installed and run on any android smartphone and size of android smartphones will not affect the performance of the application.

3. Reliability

   This application will provide easy and fast information while entering the details of student.

Software requirement

The technology and version used:

1. java version: Java SE jdk 8 and above
2. Android studio version 4 and above.
3. Genymotion emulator version 2.14
4. Android SDK-25 and above
5. SQLite version 3.25.3
6. DB browser version 3.12.1
7. Operating System: Window and Ubuntu

Hardware requirement

For developer:

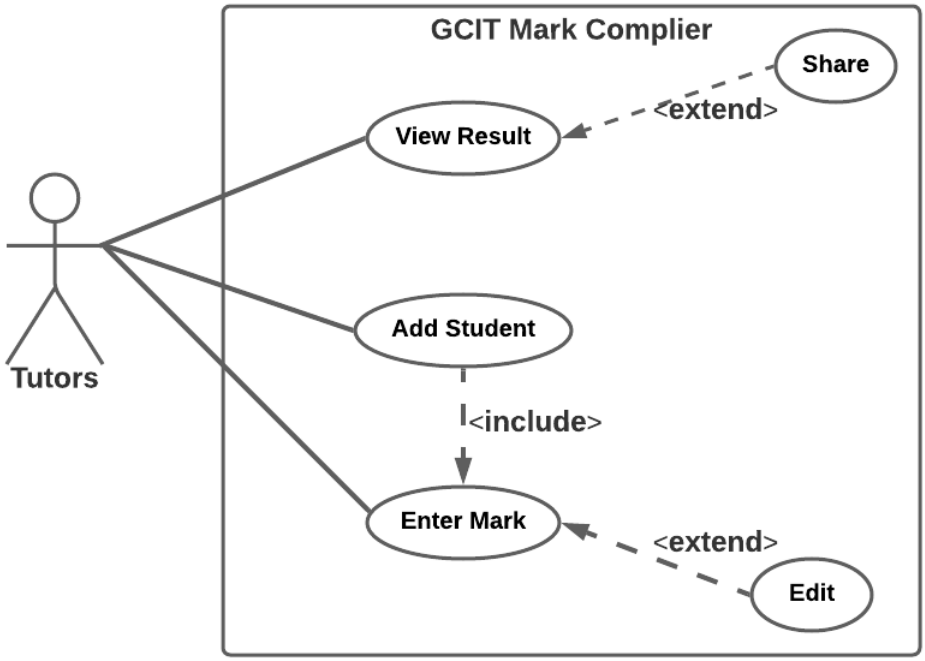
1. laptop with RAM4 and above.
2. 2.00GHz*4 Processors
3. Disk capacity :1.0TB

For user:

1. Android phone
2. Internet connection.

III. System Design

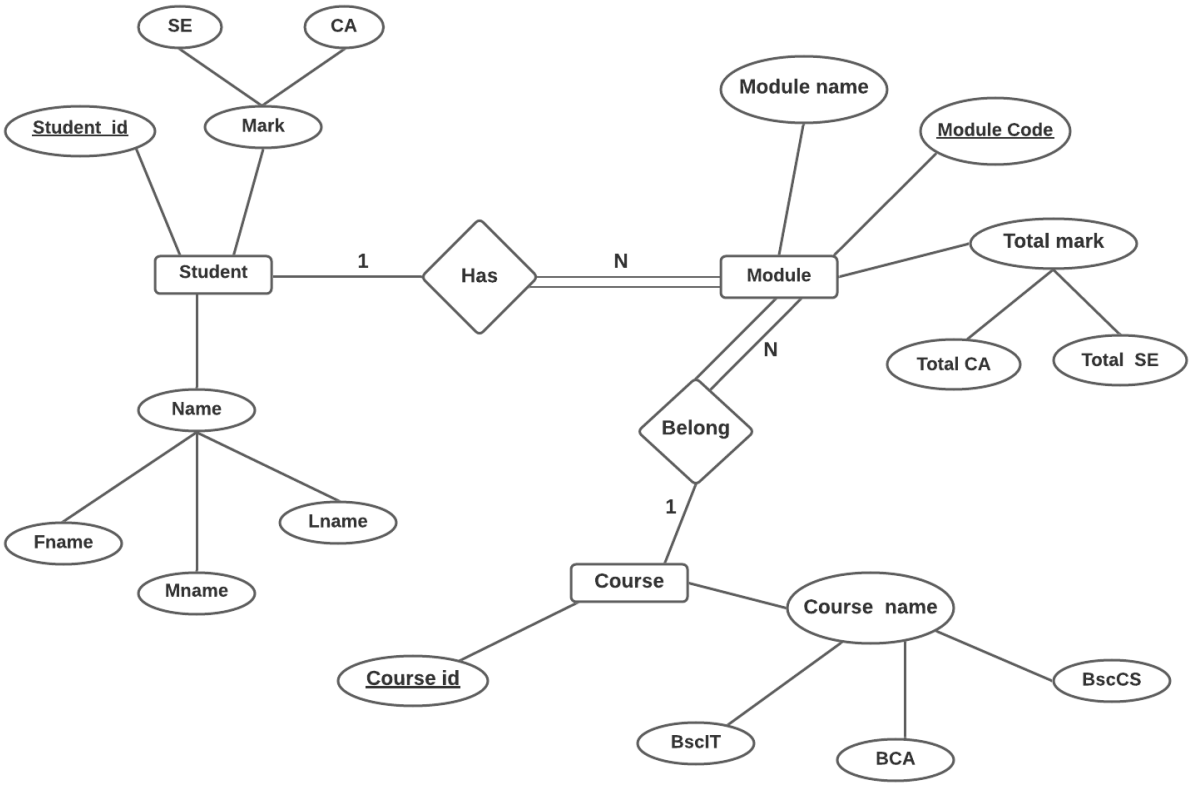
Use Case Diagram



Tutor is the primary actor of this system. Some of the functionalities of the tutors are:

- View Result
- Add Student
- Enter Mark

ERD Diagram



There are three main entities of the system are:

- Student

  Student_id, mark and name are the attributes of Student entity.

- Module

  Modulde_name, module_code and total_mark are the attributes of Module entity.

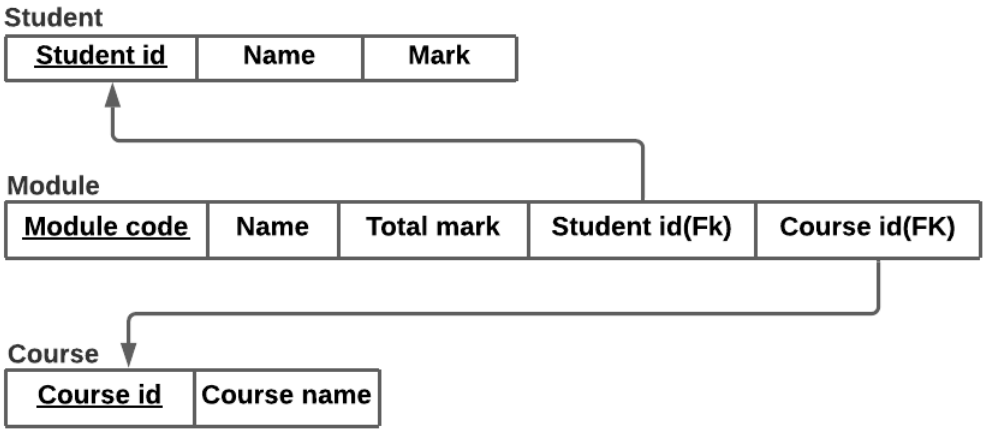
- Course

  Course_name and course_id are the attributes of course entity.

Relationships included in this ERD:

- Has – Student has a module (relationship between student entity and module entity).
- Belong - Module belong to a course (relationship between course entity and module entity).

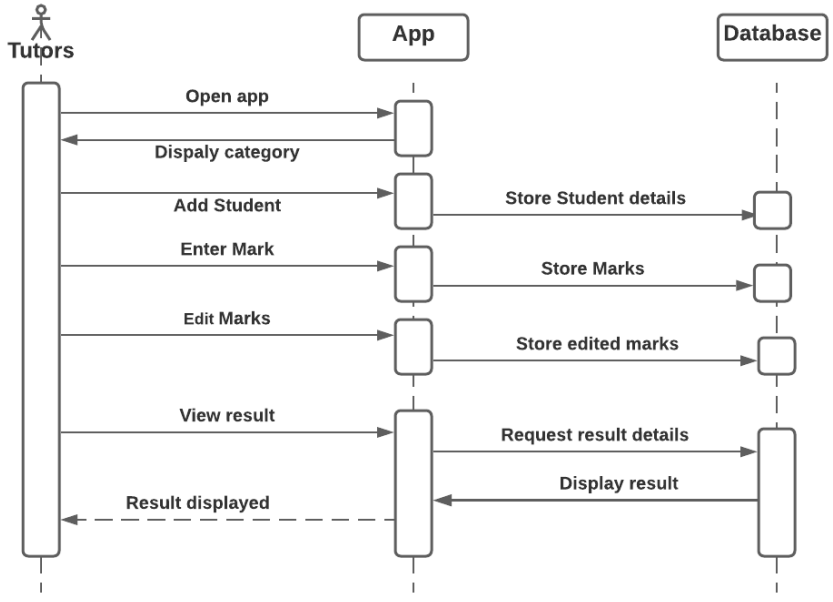
Relation Schema



There are three tables:

- Student – student_id is the primary key.
- Module – module_code is the primary key.
- Course – course_id is the primary key.

Sequence diagram



The sequence diagram explains the general workflow of the system.