

Bachelors of Science in Information Technology

Gyalpozhing College of Information Technology



**Proposal
For
Mini Project
Bachelor of Science in Information Technology**

GCIT Mark Complier

**Submitted by
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Gyalpozhing College of Information Technology

Read carefully before filling the form.

1. Please do not alter the layout of the application form. Information must be filled in the spaces provided, under set format.
2. Guidance notes in various fields should not be deleted.
3. Required information should be duly filled in the specified fields.
4. Required heads/fields which are not relevant to the project should be marked **N/A** (Not Applicable) or left blank and should not be deleted.

Guidelines and Forms

Submission Procedure

Duly filled proposal forms completed in all respects should be submitted in form of soft copy and a hard copy to project guide and project coordinator. On receipt of the applications the proposals will be evaluated by reviewer panel and proposal would then be defended by student groups. The project group may need to revise the proposal in light of the evaluator's recommendations.

For further information, please contact:

Project Coordinator

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Note: To update the table of contents, right click in the table and select '*update field*' and then select 'Update Entire Table'.

Application for Final Year Project**1. Project Identification**

A. Reference Number:	
(for office use only)	
B. Project Title: GCIT Mark Complier	
C. Project Internal Guide:	
Name:	
Designation:	
Organization:	
Mobile # :	Tel. # :
Email:	
C1. Project External Guide:	
Name:	NA
Designation:	
Organization:	
Mobile # :	Tel. # :
Email:	
C2. Student Group Lead:	
Name:	
Roll No:	
Department:	
Mobile # :	Tel. # :
Email:	

D. Organizations Involved in the Project:

(Please identify all affiliated organizations collaborating in the project, and describe their role/contribution to the project.)

D1. Industrial Organizations:

#	Organization Name	Role / Contribution
	NA	

D2. Academic Organizations:

#	Organization Name	Role / Contribution

D3. Funding Organizations:

#	Organization Name	Role / Contribution
	NA	

E. Key Words:

(Please provide a maximum of 5 key words that describe the project. The key words will be incorporated in our database.)

F. Research and Development Theme:

The theme of my project would be developing a digitalized platform for the tutors of Gyalpozhing College of Information Technology where they can calculate and compile the marks of each student. This application will reduce the workload of the tutors as they don't have to manually calculate the marks using calculator. It will mainly focus on digitalizing the way of calculating and compiling the marks of GCIT students.

G. Project Status:(Please mark ☒)☒ New☐ Modification to previous Project☐ Extension of existing project**H. Project Duration:**

Expected Starting Date: 15/02/2021

Planned Duration in months: 5 months

2. Scope, Introduction and Background of the Project**A. Scope of the Project:****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

Following are some of the feature that will be included in our project:

Login – tutors have to login to the system to proceed with further steps.

Add Student - tutors can add student to their respective classes before compiling the marks.

Edit - tutors can add marks of the students to be compiled and they can also edit the marks if they have made mistake while compiling the marks..

Logout - tutors can logout from the system once they are done with their task.

B. Introduction (Project Background and Literature Review, Current State of the Art):

*(Detailed summary of what all has been done internationally in the proposed area quoting references and bibliography. Please note that this section demonstrates the depth of knowledge of the project team and builds the confidence of the evaluators about capability of the team in achieving the stated objectives.)
(Please describe the current state of the art specific to this research topic.)*

Background

In this developing world, mobile phones have become one of the widely used technologies because of the features and functionalities it provides. These features and functionalities come with different kinds of mobile applications. The total mobile user across the world is 6.99 billion people according to statista. The increasing number of mobile users will be an opportunity for the application developers to showcase their talent and boost their knowledge.

As of today the marks of students are being calculated using calculator or excel. They either use excel or Microsoft word to compile the marks. These kind of system can be grouped together so that the teachers can reduce their workload.

GCIT mark compiler is an application for tutors of GCIT (Gyalpozhing College of Information Technology) to calculate and compile the marks of each student. This application will provide the tutors of GCIT a better way to calculate and compile the students' marks. For now, the tutors have to use Microsoft excel/calculators to calculate and compile the marks of students. This manual way of compiling the marks can be replaced by GCIT mark compiler.

Literature Review:

The application that I will be referring while developing this application is BPGC Students Mark. It presents a full-featured application for evaluation systems in all labs with features like leaderboard, labs metrics, hassle-free rechecks, 100 percent transparent and secure. Users just need to download the app, register for one time using their BITS ID and they can see all the labs and courses they are part of with all other labs metrics.

C. Challenges:

(Please describe the challenges, specific to this research topic, currently being faced internationally.)

Some of the challenges that I might face during the development of this project:

- 1) Security – It will be challenging to secure all the files and folders related to my project.
- 2) Interactive User Interface – designing an attractive and attractive user interface would be a challenging task.
- 3) Database Management – due to very little knowledge about the database system, it will be tough for me to manage and learn database.
- 4) System failures – there is high risk for the hardware systems to get crashed.

Current state of art

Currently, the tutors have to use excel or calculator to calculate and compile the marks of students. It is challenging and time consuming as the tutors have to manually do these things. Therefore my application would be beneficial for all the tutors of GCIT in calculating and compiling the marks of the students.

D. Motivation and Need:

(Please describe the motivation and need for this work.)

There is no proper platform where the tutors can calculate and compile the mark together. Even if there is Ms. Excel, it is not less portable and teachers have to carry their laptops for calculating and compiling the marks. There is a need to develop a mobile application so that the tutors can do the calculation and compilation of marks in their mobiles. This application will transform the mobile phones into an effective tool for compiling the marks.

3. Aim and Objectives of the Project

(Please write the actual aim of your project. Also, describe the measurable objectives of the project and define the expected results. Use results-oriented wording with verbs such as 'to develop..', 'to implement..', 'to research..', 'to determine..', 'to identify..' The objectives should not be statements and should not include explanations and benefits. The objective should actually specify in simple words what the project team intends to achieve (something concrete and measurable/ deliverable). Fill only those objectives that are applicable to the proposed project.

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

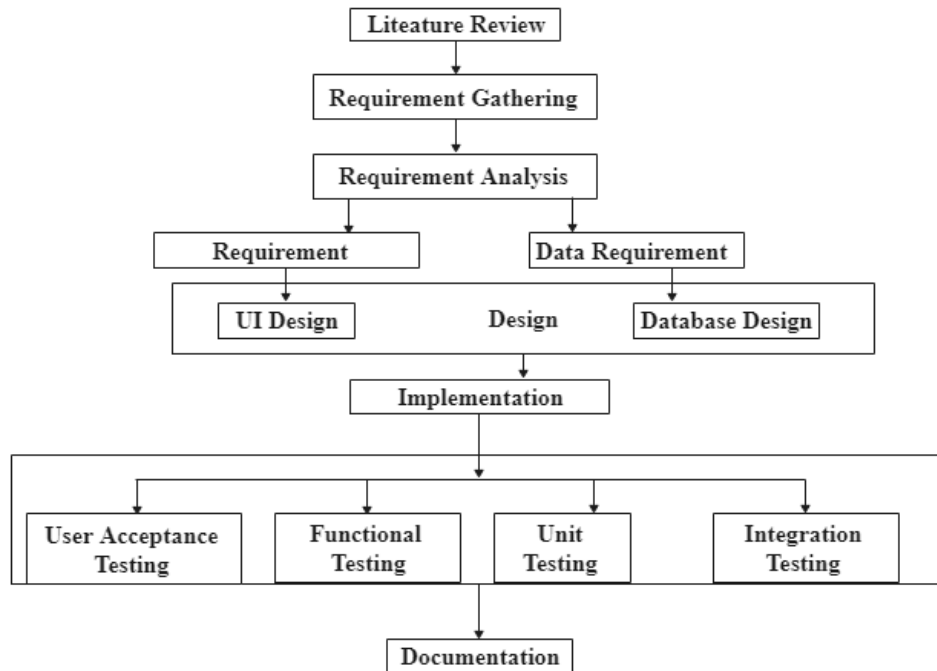
- To develop an application where the teachers of GCIT can calculate and compile the marks of students using their phone.
- To replace the old system of calculating and storing the marks of students. To reduce the workload of the teachers of GCIT.

- 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.

4. Methodology

A. Development / Research / Test Methodology:

(Please describe the technical details and justification of your development and research plan and test plan and testing strategies. Identify specialized equipment, facilities and infrastructure which are required for the project and their utilization plan. The block diagrams, system flow charts, high level algorithm details etc. have to be provided in this section. Also, describe the overall methodology to be used for the particular research topic)



Literature review

In this phase it will discuss on the comprehensive summary of research papers on the related topic which includes articles, books and other sources relevant topic.

Requirement gathering and analysis

In this phase it will work on understanding the problem in detail by brain storming, discussion and survey related to topic.

Design

This phase takes input from requirement gathering and analysis phase and design is produced. This phase will help specify hardware and system requirement.

Implementation

After completing design phase, the project will be divided into units and actual coding starts.

Testing

After implementation phase, units are tested to make sure the product fulfills all the requirements stated in requirement phase.

This following are the sequence of testing strategy and method that will be implemented while carrying out with our app development:

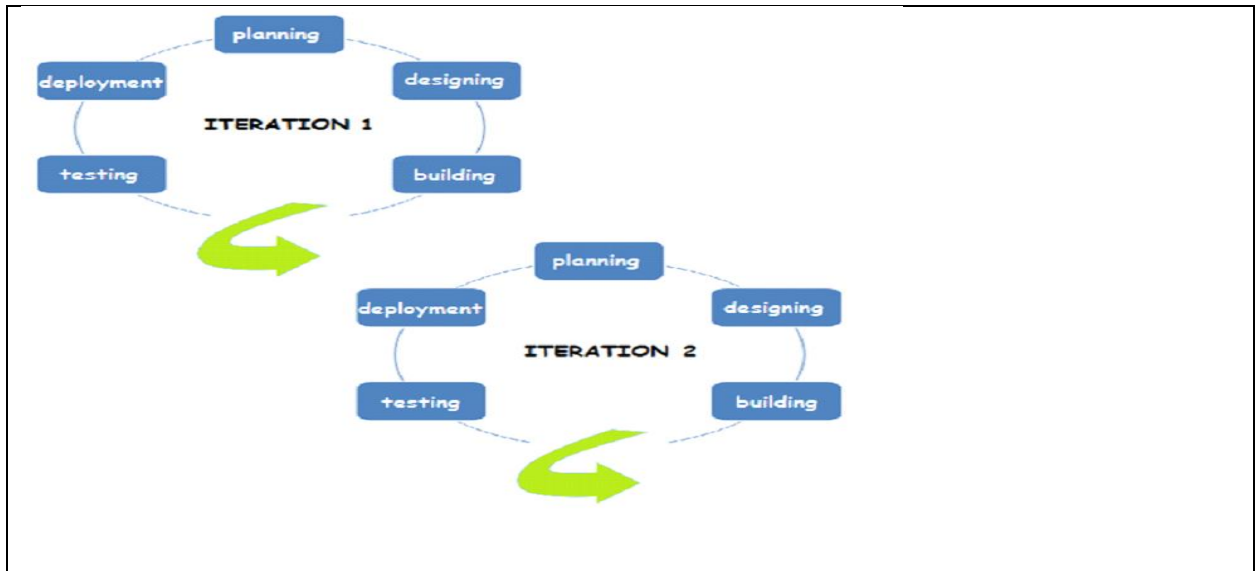
1. Unit testing
2. Integration Testing
3. Functionality Testing
4. User Acceptance Testing

Documentation

Project documents is created after completing all the coding and requirements are met.

General Methodology

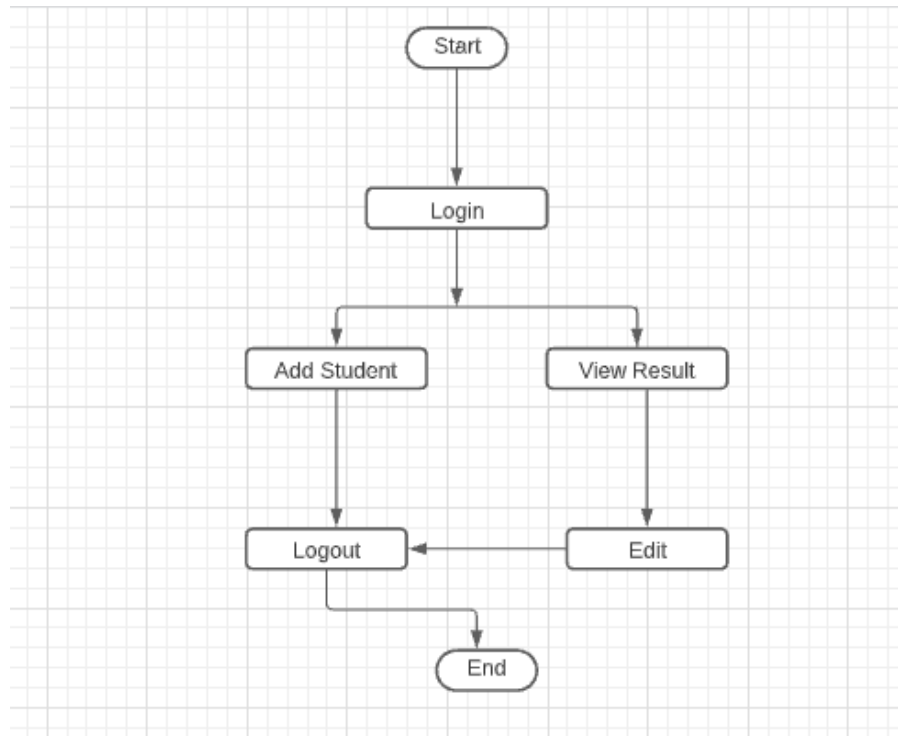
The general methodology that I would be using for developing this project is Agile methodology.



Agile uses an iterative and incremental approach to provide a solution, which means the teams have a clear understanding of its iteration goal. It's easy to handle changes in the scope of work. Agile, the tasks are divided to time boxes (small time frames) to deliver specific features for a release. Multiple iterations will take place during the Agile software development lifecycle and each follows its own workflow.

The phases of the Agile methodology:

- **Requirements** – System requirements and user requirements will be gathered and analysed in this phase.
- **Development** - Design and develop software based on defined requirements.
- **Testing** – Testing of the developed application using some of the testing methodologies.
- **Delivery** - Integrate and deliver the working iteration into production.
- **Feedback** - Accept customer and stakeholder feedback and work it into the requirements of the next iteration.

System Work Flow

The tutors can login to the system using their Employment ID and password. They will be able to add student details, view the previously added students' result and add students' result. They can edit the result if there are any mistakes. The aggregate of the students will be calculated automatically right after they entered the marks. Once they are done with their task, they can logout from the system.

C. Project Activities:

(Please list and describe the main project activities, including those associated with the transfer of the research results to customers/beneficiaries. The timing and duration of research activities are to be shown in the Gantt chart in Section 8.)

1. Software Installation

The required software needs to be installed on our system.

Some of the software required for our project are:

Android Studio.

JDK (Java Development Kit).

Flutter Framework

2. Resource Gathering

The resources will be gathered using online tutorial videos and books.

3. Design Phase

The user interface (UI) of the application will be designed in this phase. It also includes designing of the database and understanding the functionalities.

4. Development phase

The development of the application will begin in this phase. It includes coding of the application using Android studio.

5. Testing Phase

Each unit will be tested for its functionality and integration testing will also be done in this phase.

6. Final Documentation.

The final documentation will contain the detailed report of the project

D. Key Milestones and Deliverables:

(Please list and describe the principal milestones and associated deliverables of the project. A key milestone is reached when a significant phase in the project is concluded, e.g. selection and simulation of algorithms, completion of architectural design and design documents, commissioning of equipment, completion of test, etc.) The timing of milestones is also to be shown in the Gantt chart in Section 8.

<i>Elapsed time from start (in months) of the project</i>	<i>Milestone</i>	<i>Deliverables</i>
25/02/2021	Group Formation,	Topic selected
14/02/2021 – 25/02/2021	Brain storming, Feasibility and Survey.	Project proposal.
07/03/2021 – 10/03/2021	Requirement Gathering and Analysis.	SRS Document.
11/03/2021 – 12/03/2021	Software Installation.	Setting environment for development.
21/03/2021 – 10/05/2021	Development/coding.	Source code and functional features implementation.
11/05/2021 – 15/05/2021	Testing.	Test case.
16/05/2021 – 22/05/2021	Final Documentation.	Final report presentation.
23/05/2021 – 30/05/2021	External Review.	Interactive review with external examiner.

5. Benefits of the Project (Expected output/outcomes):

1. Saves Times and Speeds Up Process

Manually giving marks is a laborious and time-consuming task. Not to mention, unsecure. Using online marking application streamlines the process and makes it easier to manage.

2. Standardization of Marking

The same Ofqual report stated that marking papers on-screen saves time and money and improves accuracy while “reducing logistical risks.” With the benefit of past and exceptional papers saved onto the system, the tutors have access to reliable references to consistently mark papers to a high standard.

3. Easy Re-Marking

The marks can be edited click of a mouse to cut a substantial chunk of your workload and make your working life easier. Being able to easily re-allocate and moderate scripts helps to avoid overdue papers, and ensures a high-quality standard of marking for every student.

6. Risk Analysis/Feasibility**A. Risks of the Project:**

(Please describe the factors that may cause delays in, or prevent implementation of, the project as proposed above; estimate the degree of risk.)

(Please mark ☒ where applicable)

Low Medium High

Technical risk

☒

Timing risk

☒

Budget risk

☒

A1. Comments (Describe the risk):

Technical Risk - I might face some technical risk such as

- Handling sophisticated software.
- We might not get all the resources that are required to develop an application.
- We might face some hardware problems.

Timing Risk - I might face timing risk such as

- Not being able to complete the project within the given time period.

As there is no such applications that provide a platform for the tutors to calculate and compile the marks of the students, my project is **feasible**.

7. Project Approval Certificate

(Approval of Project Proposal by the Competent Authority (Department Chairman) and Project Review Team is mandatory before the start of project execution.)

Project Review Team:

Sl #	Name	Signature
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(Please add more rows if required.)

Project Coordinator

Name:

Designation:

Email:

Date:

Signature:

Competent Authority – Head of Department

Name:

Designation:

Email:

Date:

Signature

& stamp:

8. Reviewers Panel Comments

Report Writing Guidelines

(Project report will be written under the specified guidelines.)

Bibliography

1. BPGC student for Android - APK DOWNLOAD. (2020, January 17). Retrieved March 14, 2021, from <https://m.apkpure.com/bpgc-student-marks/c.hackathon.labsmarksstudent>
2. 26 Mockplus IDEAS: Prototyping tools, design system, flowchart diagram. (2020, December 07). Retrieved March 14, 2021, from <https://www.pinterest.com/mockplusapp/mockplus/>
3. SDLC - agile model. (n.d.). Retrieved March 14, 2021, from https://www.tutorialspoint.com/sdlc/sdlc_agile_model.htm#:~:text=Agile%20SDLC%20model%20is%20a,builds%20are%20provided%20in%20iteratio

