

**Proposal**

**For**

**Second Year Project**

**Bachelor of Science in Information Technology**

Khathun

**Submitted by**

**Tenzin Kelzang(12190088)**

**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 the 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 a 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

Sonam Wangmo

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**Application for Final Year Project**

**1. Project Identification**

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| 1. **Reference Number:** | | | |
| (for office use only) | | | |
| 1. **Project Title:** | | | |
| Thuen | | | |
| 1. **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: |  | | |

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| 1. **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* | |
|  | Gyalpozhing College of Information Technology |  | |
| **D3. Funding Organizations:** | | | |
| *#* | *Organization Name* | | *Role / Contribution* |
|  | *NA* | |  |
| 1. **Key Words:**   *(Please provide a maximum of 5 key words that describe the project. The key words will be incorporated in our database.)* | | | |
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| 1. **Research and Development Theme:** Develop an application that provides a platform for the students of Gyalpozhing college to recite daily prayers from their smartphones. | | | |
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| 1. **Project Status:**   (Please mark ☑)  ☑ New  Modification to previous Project   Extension of existing project | | | |

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| 1. **Project Duration:** | | |
| Expected Starting Date: | 10th February 2021 | |
| Planned Duration in months: | 4 months | |
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**2. Scope, Introduction and Background of the Project**

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| 1. **Scope of the Project:**   User scope: Gyalpozhing College of Information Technology, Gyalpozhing, Mongar.   * The user scope of our project is limited within Gyalpozhing College,Mongar since the completion limit is just six months.   System scope:   1. View :- Users can view the prayers stored and some basic knowledge about offerings made to the altar. 2. Category selection:- Users will be allowed to select the particular prayer to chant. |
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| 1. **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.)*  *Khathun* (ཁ་ཐུན་), meaning mouth (ཁ་) session (ཐུན་), refers to the traditional daily prayers chanted by Bhutanese, generally done early in the morning and/or late in the evening. Because the prayers are chanted at specific times and sessions, they are known as *thun* or sessions. The *khathun* may also contain as appendices liturgies for various specific purposes such prayers uttered before tea, before a meal, before snacks, before making a *serkem* (གསེར་སྐྱེམས་) or alcohol offering, for making *sang* (བསངས་) incense offering, and the prayers chanted for making the *sur* (བསུར་), or scent offering.  Many Bhutanese elders occupy themselves in the mornings and evenings with *khathun.* They chant some prayers only once but they may have an individual prayer or *khathun* that they chant over and over again. Bhutanese believe that regularly chanting the *khathun* helps them avoid harm and misfortunes, achieve their wishes, live longer and healthier lives, accumulate merit for a better rebirth, and also help them reach enlightenment swiftly.  Saving and advancing society and custom has been recognized as one of the National Key Result Areas (NKRA) with the plan to reinforce the nation's personality and power. Culture and custom envelop immaterial viewpoints like information about ceremonies. A few instances of information are offering margarine lights and essential surrender structures which a few groups need particularly the adolescent. Most young people of the country don't think a lot about the strict ceremonies and the contributions to the raised area room and these changing occasions require the need of conservation and advancement of the way of life and customs.  As it is indispensable for a little nation like Bhutan to keep up its freedom, this project will help in advancement of culture and customs through portable application in Bhutan. With the expanding number of cell phone clients and cell phone entrance dominating different methods for correspondence in the nation, reciting prayers through cell phones supposedly is perhaps the best technique. Remembering those destinations, this project will help in advancement of culture by saving the different prayers too venturing ourselves into ways of modernization.  Almost everyone knows how to use all these latest phones and the applications within it so it is no big deal with using our app. These technologies can be used for the betterment of our lives such as easing the lives of people by giving them the platform to recite prayers from their mobile phones. Therefore, with the development of this application Gyalpozhing students will have an easy way to recite prayers and get the knowledge of various prayers.  **Literature Review:**  **Protecting Bhutan’s cultural heritage (Dechen Tshering, Barbara Minguez Garcia,James P. Newman):** “ Culture defines the sovereignty and identity of Bhutan and its people and the intricate beauty and uniqueness of its traditional architecture are known around the world. Cultural heritage preservation is one of the four pillars of Gross National Happiness, the guiding philosophy of Bhutan’s development. The Royal Government of Bhutan has made it a priority to sustain both tangible and intangible aspects of its culture with dedicated offices under the Department of culture of the Ministry of Home and Cultural Affairs (MOHCA) which work closely with local governments. This work is critical as Bhutan’s monuments are vulnerable.  The 2009 and 2011 earthquakes damaged hundreds of historic monasteries and fortresses known as dzongs, including the Lhuntse and Trashigang Dzongs (2009) and the paro tadzong(2011).  The DCHS (Division For Conservation Of Heritage Sites) with its partners is working at all levels, ranging from inventory and documentation of important heritage sites to hands-on renovation works, research works to improve the understanding of the behavior of traditional buildings, and continued capacity building of artisans and its officials to enhance the resilience of these structures. ”  **Nangchoe Prayer Book:** In today’s world, the Internet is the bare necessity for all ages of people. As the name indicates, this app contains several daily prayers that monks in Zhung Dratshang Tewa recite everyday. It is a mobile app version Nangchoe Prayer Book. It is very handy for all the users to access anytime and anywhere.  **Bible Offline:** This is the first Bible Offline free in the app stores and it is available in more than 100 million devices around the world. The Bible Offline App was created to spread and facilitate the reading of the Holy Bible, through biblical texts, audios and all the features it has. The main translation is KJV Bible free download (King James Version), but you can choose other bible versions like CSB Bible and NIV Bible. |

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| 1. **Challenges:**   *(Please describe the challenges, specific to this research topic, currently being faced internationally.)* |
| Challenges we could face when developing the App:   * To explore Android App development in detail. * Designing appropriate user interface. * Testing the system. * Meeting the time schedule. |
| **Motivation and Need:**  *(Please describe the motivation and need for this work.)* |
| Bhutanese are known to be very religious hence the first thing they do is recite prayers early in the morning to start off the day. It is difficult to provide all of the students with physical hard copies. Not only is Khathun easily accessible it is portable as well.  Moreover, some students find it difficult to read dzongkha. Khathun will provide the transliteration of the prayers which will help students in the recitation of the prayers. |

**3. Aim and Objectives of the Project**

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| *(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 : To develop an app based on android that is portable and enables the user to access prayers available in it.  OBJECTIVES :  -To make it easier for users to recite prayers.  -To save time.  -To preserve the knowledge of prayers for future generations. |
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**4. Methodology**

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| 1. **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)*  **Project plan:** |
| Finding the problem that should be something that is solvable through the implementation of IT knowledge. The next phase will consist of reviewing documents (papers, books, videos, articles, etc.) related to the identified problem and proposed solution. The literature review will continue from this stage to the stage where the developer will be ready for gathering requirements.  After reviewing enough papers and gathering enough information about how and what to do for requirement gathering, the team will move on to the requirement gathering phase through various techniques such as brainstorming and analyzing relevant information. Along with the requirement gathering, the project team will also initiate the documentation process. Any necessary information will be added to the project document.  Analyzing the gathered requirements will be the next phase. This phase will include refining the gathered requirements. The output of this phase will be the SRS document which will act as the input for the design phase. The developer will also try to write a paper out of collected and analyzed data.  The developer will design the app icon, user interface, and system design. The next phase comprises development of the application where various features of the app will be developed. During the development, every feature will be tested by the team to insure the functionality of each component.  In order to ensure the functionality of each component, every component will undergo unit testing. The tested component will later undergo integration testing to ensure proper functioning of the app. If there are any issues encountered during the testing phase, the developer will resolve the issue and test again.  In the final phase, the project document will be created along with the fully functional application.  **Development model:**  *Big Bang Model:*  In this model, engineers don't follow a particular interaction. Advancement starts with the essential assets and endeavors as data sources. What's more, the outcome might possibly be according to the client's prerequisite, on the grounds that in this model, even the client necessities are not characterized. This model is ideal for little ventures like scholarly undertakings or useful activities. This model is awesome and appropriate if the product improvement project is a little one where 2 to 3 engineers cooperate to assemble a framework or similarly as a spurious undertaking. The model is additionally reasonable if every one of the necessities are not fittingly perceived, and the cutoff time for the arrival of the framework isn't pronounced.    This is a serious straightforward model. Executing this model makes overseeing errands simpler and it requires zero arranging however the possibility of result is remembered. Designers have enormous adaptability in building up the whole item. Assets fundamental for building up the item are not many.  The hypothetical and graphical portrayal of a framework is changed over into a type of a coding utilizing programming language. Subsequent to carrying out the framework, we will work on testing which will zero in on researching and finding the issues in the created framework. Here, we will see if the framework created is adequate and will help in amending and diminishing the blunders or disappointments that happened while building up the framework. |

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| 1. **Project Team:** | |
| ***Title / Position*** | ***Number*** |
| Project Internal Guide |  |
| Project External Guide |  |
| Student Team Members |  |
| Others (please specify) |  |
| Add more rows if required |  |

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| 1. **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.)*  The project will begin with the installation of the required software’s (Android Studio and Java Development Kit v8 or more) and gathering of references (Books, tutorial documents, videos, internet, and library) related to the Android application development and XML.  The project will consist of designing a database for the application and familiarizing the functionalities of the system which will include understanding how the control flows. The rest of the phases will include development and testing of the product under each iteration.  “Khathun” application will undergo tests where the developed app will be integrated to check its functionalities. If any bug is encountered, the development team will solve the issues and run more tests to ensure proper functionalities of the application. The final activity of the team will be to prepare the project report, user manual and finally conclude with the final presentation. |
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| 1. **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.* | | | |
|  | | | |
| *No.* | *Elapsed time from start (in months) of the project* | *Milestone* | *Deliverables* |
| 1 | 08/02/2021 -  13/02/2021 | Topic Selection | Topic selected. |
| 2 | 04/03/2021 -  14/03/2021 | Literature review ,brainstorming, prototype, and background review | Project proposal report. |
| 3 | 16/03/2021 -  26/03/2021 | System design | User interface. |
| 4 | 01/04/2021 - 10/05/2021 | Coding and implementation | Implementing the functional features, and gathering of source code. |
| 5 | 11/05/2021 -  16/05/2021 | Testing | Test case. |
| 6 | 17/05/2021 -  22/05/2021 | Report writing and final review | Presentation of final work progress. |

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

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| This project is mainly dedicated for the Gyalpozhing college students to recite prayers from their smartphones. Students will have a platform to understand and know about the different types of prayers. Students will have the prayers that they recite everyday in college available on their smartphones without having to look for prayer books during prayer sessions.  **For user**   * Will be helpful for students who cannot read specific prayers. * Will be helpful for school youths. * Will be an easy platform for reciting prayers.   **For developer**   * Gain real time project skills |
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**6. Risk Analysis/Feasibility**

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| 1. **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):** |
| * The developer will face medium technical risk as in the development phase of the project due to having a desktop of only 4GB ram the process will be slow. * The developer will face high timing risk as we will also be occupied by other modules’ assignments and projects. * The developer will face low budget risk as there are no areas to spend budget. |
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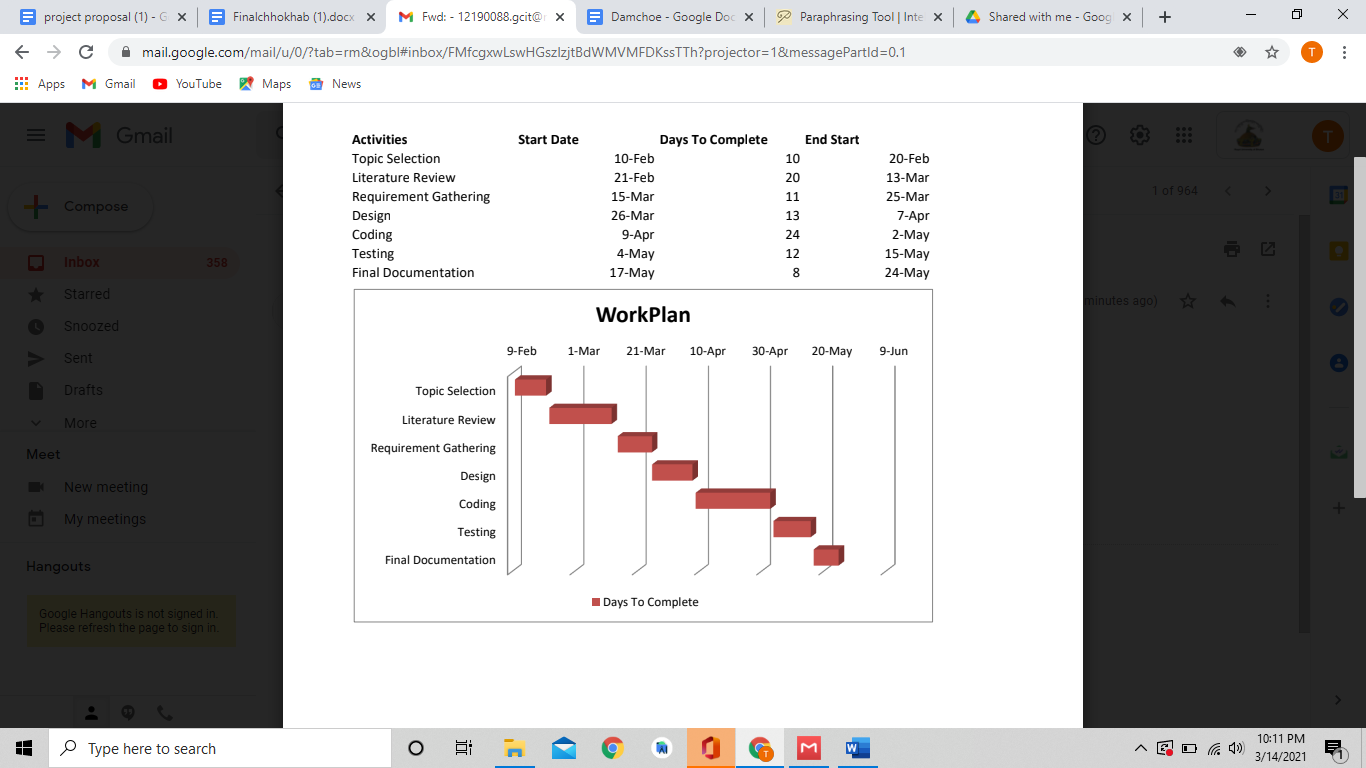
**7. Project Approval Certificate**

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| --- |
| *(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                  (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**

**10. Project Schedule / Milestone Chart /Work plan**

*(Project schedule using MS-Project (or similar tools) with all tasks, deliverables, milestones, clearly indicated are preferred. Task should be measured in terms of hours)*



**13. Report Writing Guidelines**

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

**Bibliography**

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