Proposal

For

Second Year Project

Bachelor of Science in Information Technology

Currency Converter

Submitted by

TSHERING DORJI

12190092

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.

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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

Jigme Wangmo
jigmewangmo.gcit@rub.edu.bt

Tshering Lhamo
tsheringlhamo.gcit@rub.edu.bt

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Application for Final Year Project

1. Project Identification

A. Reference Number: (for office use only)	
B. Project Title:	

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.)

Currency-Converter

F. Research and Development Theme:

Develop an application that can easily and accurately convert one currency into another in order to check its corresponding value.

G. Project Status:

(Please mark ☑)

☑ New   Modification to previous Project

Extension of existing project

H. Project Duration:	
Expected Starting Date:	01/03/2021
Planned Duration in months:	3 months

2. Scope, Introduction and Background of the Project

A. Scope of the Project:

System Scope:

- To calculate one currency into another in order to check its corresponding value.
- Display the conversion rate of different currencies across the globe.

User Scope:

- People of Bhutan.

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

Advanced mobile phones with the mobile applications play a major role and have altered the manner in which we work, learn and organize our lives. Now, every organization and people are adopting the evolving technologies to enhance their everyday life.

Currency is a medium of exchange for goods and services. In short, it is money, in the form of paper or coins, usually issued by a government and generally accepted at its face value as a method of payment. Currency is the primary medium of exchange in the modern world, having long ago replaced bartering as a means of trading goods and services.

Currencies are the very important corner that is permanently needed as most of the time we want to satisfy our desires by acquiring commodities and every commodity we want to acquire has its own price. The currency is different for each country due to the economic situation of the state. Each currency has its own currency difference and may rise or fall according to the economic situation of this country.

According to WorldAtlas.com, 180 national currencies recognized by the United Nations are currently in circulation. Another 66 countries either use the U.S. dollar or peg their currency directly to the dollar. Most countries issue their own currencies. For example, Switzerland's official currency is the Swiss franc, and Bhutan's is Ngultrum. An exception is the euro, which has been adopted by most countries that are members of the European Union. With the decline of bullion coinage, currency has no real worth in itself and derives value instead from its general acceptability.

A conversion rate is the ratio between two currencies, most commonly used in foreign exchange markets, which designates how much of one currency is needed to exchange for the equivalent value of another currency. Conversion rates fluctuate regularly for all currencies. Conversion is the knowledge of the real value of one currency to be converted into another country's currency.

Conversion rate represents the relative value between two currencies. It is essentially the price measure of one currency against another. As the rate changes, one country's money can become weaker or stronger against other currencies. A conversion rate designates how much an individual or corporation needs of one currency to transact a desired amount in another currency.

It is difficult to acquire large values of different currencies and it is time consuming to search for it online. Therefore, an application is needed that can easily and accurately get the value after converting different currency to another.

Literature Review:

Since a conversion rate represents the price of one currency denominated by another, it also reflects the relative supply and demand for each currency. Supply and demand often have a basis on a country's overall economy, interest rate, or government monetary policy.

If the supply of available currency grows larger than the number of consumers or investors who demand its use, then that currency's value falls as it becomes less attractive in foreign exchange markets. As a result, that currency's conversion rate may increase relative to other currencies.

A government or central bank might take steps to increase or decrease the nation's money supply as part of an effort to regulate the conversion ratio of their currency. This may be done at the behest of the country's government for reasons of economic stimulus or austerity policies, but supply changes are part of the equation that central banks can have control over.

The demand for a currency can also change. One factor that influences demand is a country's interest rate policy. If the prevailing interest rate for currency rises, currency demand could increase as well. Individuals and organizations may prefer to hold assets in that currency instead of others. Other factors which can cause conversion rates to fluctuate include balance of trade (BOT), perceived inflation risk, and political stability.

Pocketools' Currency Converter is a simple yet powerful app for any trader. Able to handle a host of popular currencies, it also has several options that is recommended to most business people. First is that it can operate in offline mode. In addition, it can track most changes in the international markets and display it as a graph, helping to predict future trends. Paired with a constant update of currency news, this is a helpful little tool for any trader looking for an edge.
A
Convert Pad is another useful app – this time more than just for businessmen. More a unit converter, it specializes in converting one unit to another, whatever sort of measurement it is. Supporting 160+ currencies and 23 languages, this is an international app. It is also easily customized to handle whatever unit of measurement or currency is needed to be converted. Users can even define their own units of measurement for conversion.

Currency Converter is a simple and easy to use app, it is a basic app. Updates are needed to keep the currency rates in line with the market, but they can be automatically scheduled or even manually initiated.

C. **Challenges:**

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

For Developers

- Exploration of android development in details will take time as we are not yet fully introduced with how to develop the Mobile Application.
- Getting desired interface will be questionable.
- Being in line with the work plan schedule since the project duration is for only 1 semester.

For Users:

- Adoption of the application.

D. **Motivation and Need:**

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

- To be in track with the different conversion rate of different currencies.
- To save time by easily calculating one currency to another with accurate values.

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 :

- To build a well-designed, user friendly and a highly effective android application that can display the different conversion rate of different currencies and to accurately calculate the values of different currency to a desired currency.

OBJECTIVES :

- To develop a convenient platform that can find the accurate values of a currency after converting it to another currency.
- To save time.
- To keep people up to date with the different conversion rate of different currencies.

4. **Methodology**

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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)

Agile Software Development Model

➢ The Agile software development methodology is one of the most straightforward and successful cycles to transform a dream for a business need into programming arrangements. Agile is a term used to describe software development approaches that employ persistent arranging, learning, improvement, group cooperation, evolutionary development, and early delivery. It encourages flexible responses to change.

➢ The agile software development emphasizes on four core values.

1. Individual and team interactions over processes and tools

2. Working software over comprehensive documentation

3. Customer collaboration over contract negotiation

4. Responding to change over following a plan
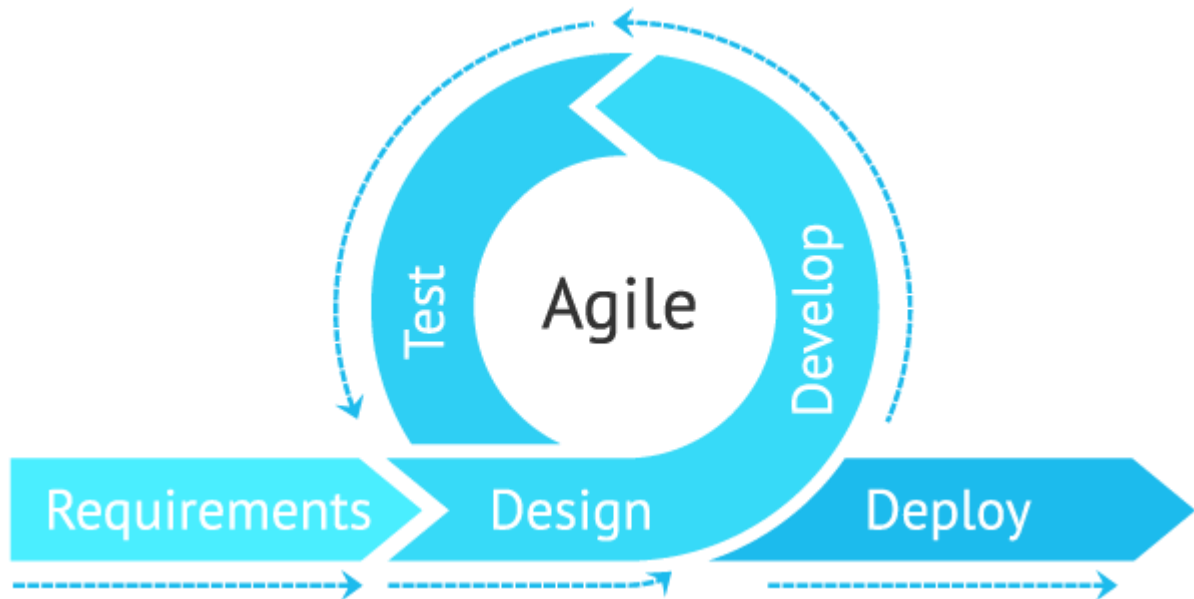
I adopted Agile model for the following reasons;

- It is responsive to changes as they are iterative in nature.
- Inexpensive while changing requirements as the working software is frequently delivered to the user.
- Availability of risk identification factor.
- High customer satisfaction.

B. Project Team:

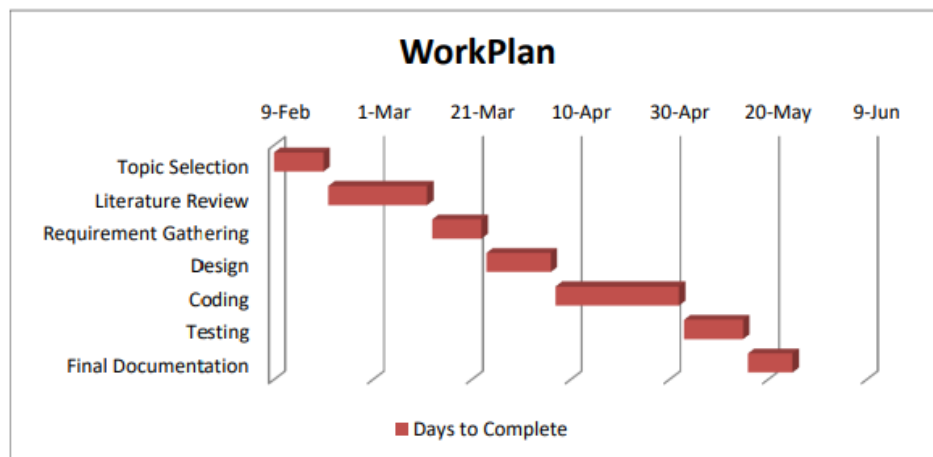| *Title / Position*	*Number*
Project Internal Guide	
Project External Guide	
Student Team Members	
Others (please specify)	
Add more rows if required	

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.)

- Installation of software and tools: Installing android studio version (2 and above), Android SDK, Java Development Kit (v8 or more),java programming language, MySQL.
- I will be referring the following resource materials:

- ✓ books, video tutorials
- ✓ online reference related to android app development
- ✓ java programming language.
- Designing of user interface.
- Implementation of the pre-designed product.
- Unit testing and Integration testing will be done on the product.
- End product would consist of the report documentation and would be concluded with a presentation.

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

Activities	Start-Date	Days to Complete	End Date
Topic Selection	9-Feb	10	19-Feb
Literature Review	20-Feb	20	12-Mar
Requirement Gathering	13-Mar	10	23-Mar
Design	24-Mar	13	6-Apr
Coding	7-Apr	25	2-May
Testing	3-May	12	15-May
Final Documentation	16-May	9	24-May

WorkPlan

	9-Feb	1-Mar	21-Mar	10-Apr	30-Apr	20-May	9-Jun
Topic Selection							
Literature Review							
Requirement Gathering							
Design							
Coding							
Testing							
Final Documentation							

■ Days to Complete

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

Benefits are:
- ✓ Can accurately get the values of different currency in another currency.
- ✓ Can be a convenient platform for those who want the values of huge currency in another currency.
- ✓ Can save time of the individual.
- ✓ Can be up to date with the different conversion rate of different currencies.

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):**

I. Technical Risk:
The technical risk is low since I will be using Android Studio to develop my app which requires minimum of 4GB of ram. There are chances that my system would crash since it cannot support the required software.

II. Timing Risk:
The timing risk is low since the application I chose to develop is quite simple and it can be developed in the specified time allocated.

III. Budget Risk:
The budget risk is low since the software I will be using is free online and I can get all the tutorials that I wish to learn online for free.

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

(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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