



Proposal
For
Second Year Project
Bachelor of Science in Information Technology

Dzongkha Typing Game

Submitted by
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ENROLLMENT No: 12190099

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 evaluators recommendations.

For further information, please contact:

Project Coordinator

Sonam Wangmo

sonamwangmo.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: Dzongkha Typing Game	
C Project Internal Guide:	
Name:	Sonam Wangmo
Designation:	Lecturer
Organization:	GCIT
Mobile # :	17715831 Tel. # :
Email:	sonamwangmo.gcit@rub.edu.bt
C1. Project External Guide:	
Name:	NA
Designation:	
Organization:	
Mobile # :	Tel. # :
Email:	
C2. Student Group Lead:	
Name:	Tshering Wangchuk
Roll No:	12190099
Department:	Bachelor of Science in Information Technology
Mobile # :	17477523 Tel. # :
Email:	12190099.gcit@rub.edu.bt

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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.)

1. Dzongkha
2. Time
3. Typing
4. Online

F Research and Development Theme:

To improve one's skills in typing Dzongkha.

G Project Status:

(Please mark ☒)

- ☒ New ☐ Modification to previous Project
☐ Extension of existing project

H Project Duration:

Expected Starting Date: 3rd March

Planned Duration in months: 6 months

2. Scope, Introduction and Background of the Project

A Scope of the Project:

System Scope

To develop a mobile application with following features:

1. Online based
2. Category selection
3. Words display

This App with the following categories:

- i. Colors
- ii. Electronics

User Scope

The scope of this project is mainly for the people who wants to improve their Dzongkha typing.

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.)

Project Background

In today's state of affairs there are just a few who does now no longer have get right of entry to smartphones. Mobile generation has superior very swiftly that the whole lot has turn out to be easy. Today, the cell global isn't handiest confined to fundamental desires like chatting, calls, and many others however has additionally brought cell packages that make studying easy. People can use special styles of packages on their smartphones applicable to their desires and convenience. Almost all and sundry is aware of the way to use a lot of these ultra-modern telephones and the packages inside it, consisting of youngsters and research have proven that cell technology assist in language studying (Norton, 2014). These technology may be used for the betterment of our lives together with withinside the schooling of our youngsters. However, youngsters use smartphones and different digital gadgets for gambling video games and different unproductive activities. There are enough of app to examine typing but there may be no app in Dzongkha. So Bhutanese are extra familiar, assured and they are able to kind nicely in English however now no longer in Dzongkha. Therefore, with the development "Dzongkha Typing Game", the Bhutanese may have a higher opportunity at studying Dzongkha typing, they are able to kind Dzongkha without difficulty and speedy inside some time. It can even enhance their typing skills. Since my idea is primarily based totally on typing, it'll blessings to the Bhutanese to test their reputation and overall performance of typing in Dzongkha.

Literature Review

Paper Review

1. Emerging technologies mobile apps for language learning

This paper discusses the various mobile devices, tablets and PDAs and their evolution and how mobile learning have affected in learning. Also how the mobile technologies help in educational field. On top of that, how students will encourage due to mobile technologies(Godwin-Jones, June 2011).

2. Review on use of Mobile Apps for Language Learning

Ramya Gangaamaran and Madhumathi Pasupathi performed a studies on review on use of Mobile Apps for Language Learning where in those research mentioned the layout, method, principle and pedagogical capabilities that underpin the modern-day cellular apps. Since those apps are evolved to beautify the language abilities of the learners, emphasis must be by and large made on the purchase of language abilities together with listening, speaking, reading, and writing abilities via cellular technology. In order to enhance the language gaining knowledge of abilities for the customers, we want to layout an app in the sort of manner that it consists of the capabilities together with listening, gaining knowledge of and visualizing the matters we see at the display and due to the fact our app serves all those cause so consequently it'll advantage the customers and assist them analyze easily.

3. Mobile Phone Technology in English Teaching

Naveen K Mehta in (K Mehta, 2012) carried out a research that explores the use of mobile phone technology in learning English language and concluded that mobile learning is effective as students can easily access language learning materials and communicate to their teachers without wasting much time. Mobile phone enriches a student knowledge bank, motivates and encourages the students to learn the language.

Review of other Apps:

My application design would be based on these other applications that I researched

1. Fast Typing Game : Test your writing speed

This application is a game based to test, calculate and improving the one's writing speed or typing speed and accuracy with fun. The main concepts to developed this application is to check someone's typing skill within 60 seconds, how much they will write the appearing words without mistakes. It also gives us the CPM(characters per minute) and WPM(Words per minute), when the game is over but only the correct words are counted. It is entertaining but it also has lots of benefits for the user to learn new words and spelling. It also has new language to learn like french, german, spanish, russian, chinese and japanese. There are some advice for beginners that it

is better to focus on accuracy, not speed. Have to used enter key, to move into next words. If there is error then go back and correct it.

2. Typing Master - Word Typing Game , Word Game

This application has more than 200,000 different words. There are Eight word Games like Typing Master, Word/Text Battle, Word Connect, Word Cross/Crossword Puzzle, Word Search Puzzle, Word Scrolling, Word Pair Mini Game, Word Pearls. Each Word Game have different functionalities and different ways to play.

3. Fast Typing - Learn to type fast!

This application was developed to practice the typing and test the speed of our typing. It has different functionalities like to measure the CWPM (correct words per minute), CPS (Correct Characters per second, typing speed), wrong words, Typing accuracy, and how much you are good as compared to others. This app contains eleven different language like English, Croatian, Serbian, Russian, German, Italian, Spanish, French, Arabic, Hindi, Portuguese and Numbers are also included. It also ranks us compared with other users. If we can typing well with a good speed then we get a title called Grand master. We can also view our title, trophies that we won from games, best and worst score from game and total characters and words typed.

Current state of Art

Currently, there are lots of English associated app for mastering typing. One of the principle mastering systems is cell technology. Dzongkha being our countrywide language has turn out to be a concern in growing man or woman abilities to write down properly and extra importantly ought to used for sending reputable letter and email through Dzongkha. It is likewise useful in maintaining and selling our language and culture. However because of the improvement of our country, English is the maximum spoken and written language today. Currently, Dzongkha is hardly ever used for writing and in faculty additionally there's most effective one subject. There is a risk of our language going extinct. Most human beings are used to writing in english or even youngsters don't like to write down in Dzongkha. People are advocated the more youthful technology to used cell at early level and all smartphone carries lots of english associated software and I arise this concept particularly for the destiny technology to kind in Dzongkha and maintain our very own identity. The Dzongkha Development Commission (DDC) is the most effective authorities department which matches for the reason of improving Dzongkha, where in they're suffering with constrained systems. So, with the idea of using growing this app, i purpose to offer an interactive and clean mastering systems for the human beings to kind properly in Dzongkha and decorate their potential to writing in Dzongkha.

C Challenges:

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

1. Security – security issues can be a nagging concern while developing an application.
2. Performance – make our app responsive and smooth.
3. Compatibility – run well on older version platform.

D Motivation and Need:

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

Learning Dzongkha typing isn't clean and there may be no any platform to study Dzongkha typing. Most of the humans do not know approximately the Dzongkha typing even though it is important. People aren't assured to kind in Dzongkha. Most of the humans are asking others to kind on every occasion they've to. With such situation I got here up with concept of developing "Dzongkha typing game"

so consequently it's going to blessings the people in this type of manner that they're capable of kind through themselves like English. Also through this Application, I was hoping to improve our language in written form. Since all of us are writing the entirety in english due to the fact we aren't a whole lot acquainted with Dzongkha typing and we do not know the right area of Dzongkha letters in keyboard . So the app that i am going to broaden essentially objectives to sell Dzongkha typing.

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 develop an interactive and useful platform to learn Dzongkha typing through application for those who wants to improved.

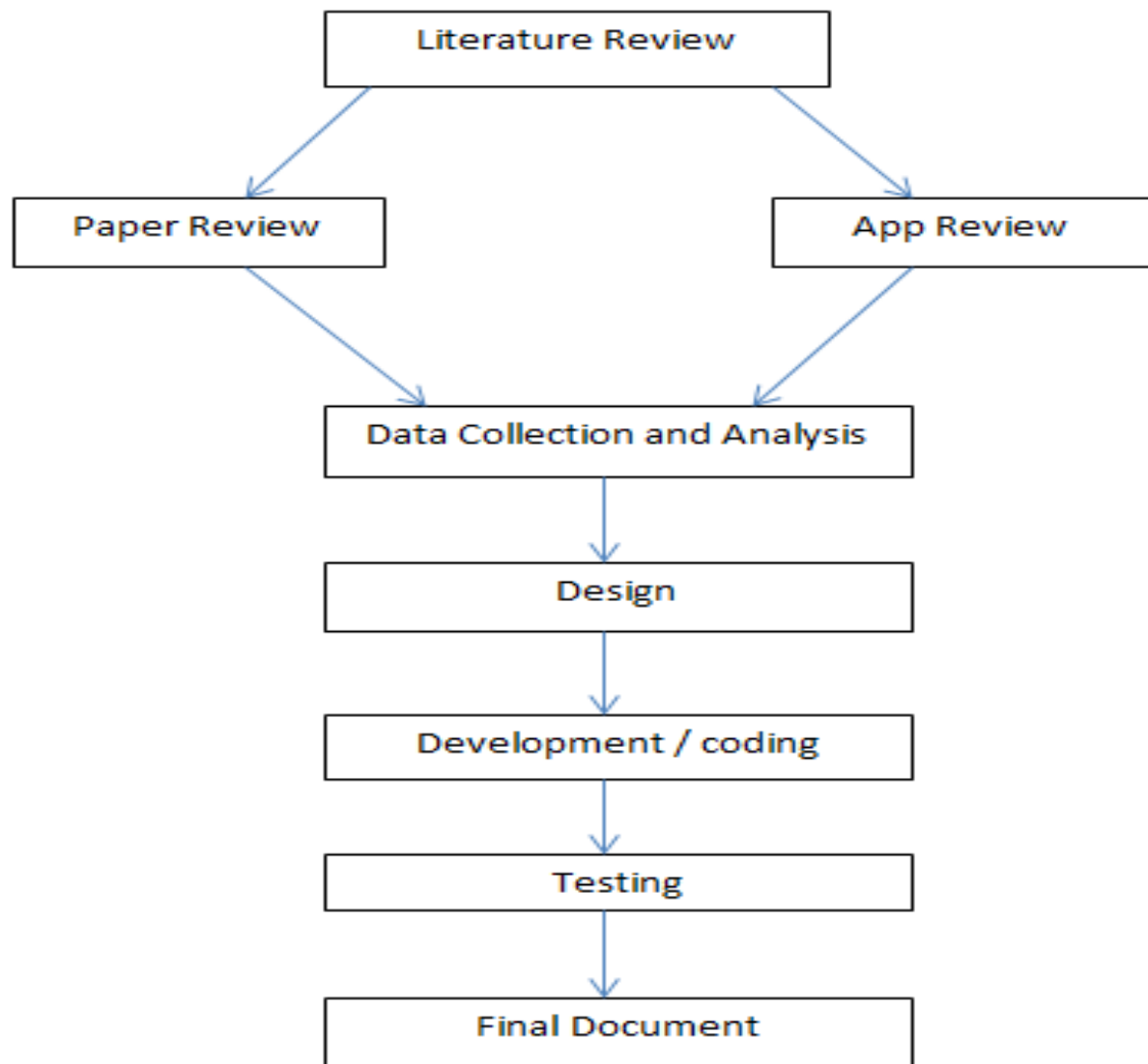
Objectives :

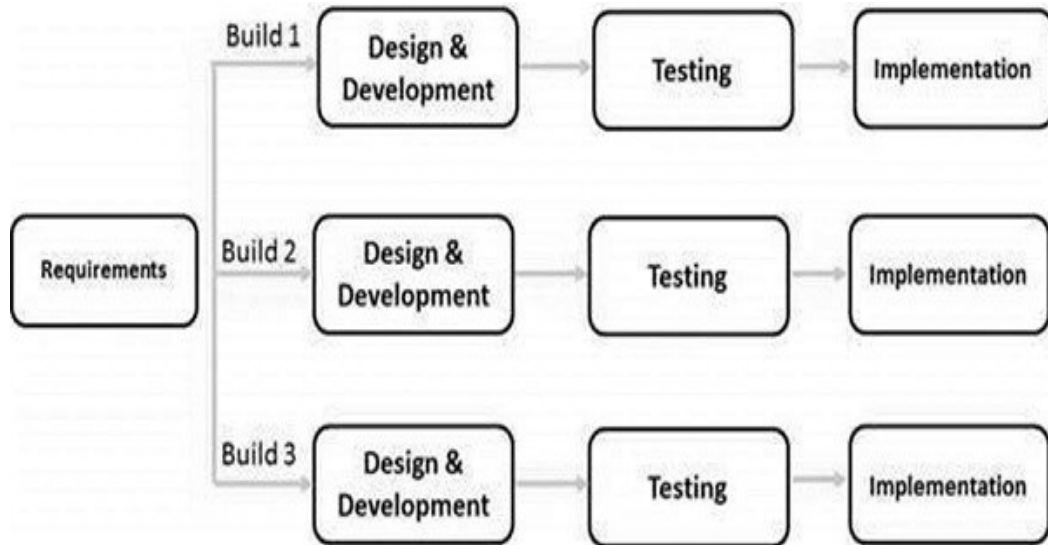
1. To enable humans to end up greater in a position in Dzongkha typing.
2. To make Dzongkha typing fun and delightful.
3. To make people easily type in Dzongkha like English.
4. To improve their typing skill.

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)





An iterative version improvement start through specifying and imposing simply a part of the software program, that's then reviewed to become aware of similarly necessities. This method is then repeated, generating a new edition of the software program on the cease of every new release of the version. Through every new release, the version is similarly evolved and designed higher than the preceding new release. With the necessities given on the preliminary phase, the version is ready however it is able to be changed or up to date with extra records if issues stand up on the preliminary new release. This version will assist in constructing the app as thru every new release, we are able to be capable of come across any shortcomings or defects that desires to corrected and altered.

Reason to select this model:

Generates operating software program fast and early at some stage in the software program lifestyles cycle. More bendy and much less expensive to extra scope and requirements. Easier to check and debug at some stage in a smaller iteration. Easier to control threat due to the fact volatile portions are diagnosed and treated at some stage in its iteration.

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B Project Team:	
<i>Title / Position</i>	<i>Number</i>
Project Internal Guide	Ms. Sonam Wangmo
Project External Guide	
Student Team Members	Tshering Wangchuk
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.)

Feasibility Study: Through review of different papers and mobile app.

Installation of software and tools: Installing android studio version (2 and above), Java Development Kit (v8 or more) , database server and VS Code.

Resource gathering: Books, tutorials videos, online reference related to android app development and XML.

Design Phase: It includes designing user interface, database design and familiarizing the functionalities of the system which will include understanding of how the control flows, keeping the design concepts in mind.

Development of the product: The development of app begins here with coding using android.

Testing the product: The product will undergo unit test to ensure that each unit functions properly and will also carry out integration testing to ensure that it produce a desired function after combining all the units. Also, if any bugs are encountered, we will solve the issues and run more tests to ensure proper functionalities of the application.

Final Documentation: After all the phases are done we will prepare the documentation of the project, project report and finally conclude with the final presentation.

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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.

No.	Elapsed time from start (in months) of the project	Milestone	Deliverable
1.	09/02/2021-14/03/2021	Title selection, problem statements, brainstorming, literature review and App review	Writing project proposal
2.	15/03/2021-26/03/2021	Requirement gathering, analysis and design.	SRS document, ER diagram, database design, User interface design and UML designed.
3.	28/03/2021-30/04/2021	Development/ coding	Source code and functional features implemented
4.	01/05/2021-09/05/2021	Testing	Test Case
5.	10/05/2021-16/05/2021	Complete development and testing	Complete android app
6.	17/05/2021-22/05/2021	Final Documentation	All document combined together and ready
(Please add more rows if required.)			

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

The benefits from the project are:

1. Promotion and preservation of Dzongkha
2. Getting people more interested to learn Dzongkha typing.
3. Improve writing abilities in Dzongkha
4. Learner-centered and attractive

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 <input checked="" type="checkbox"/> where applicable)	Low	Medium	High
Technical risk	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Timing risk	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Budget risk	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A1. Comments(Describe the risk):

Technical risk: Technical failure such as corruption of files, OS crash may occur.

Timing risk: Time needs to be spend on learning android development, on research, content part of the app.

Budget risk: we don't have budget risk because we don't have to buy any software or technology. Our project can be done using free software available on internet.

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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.NO	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:

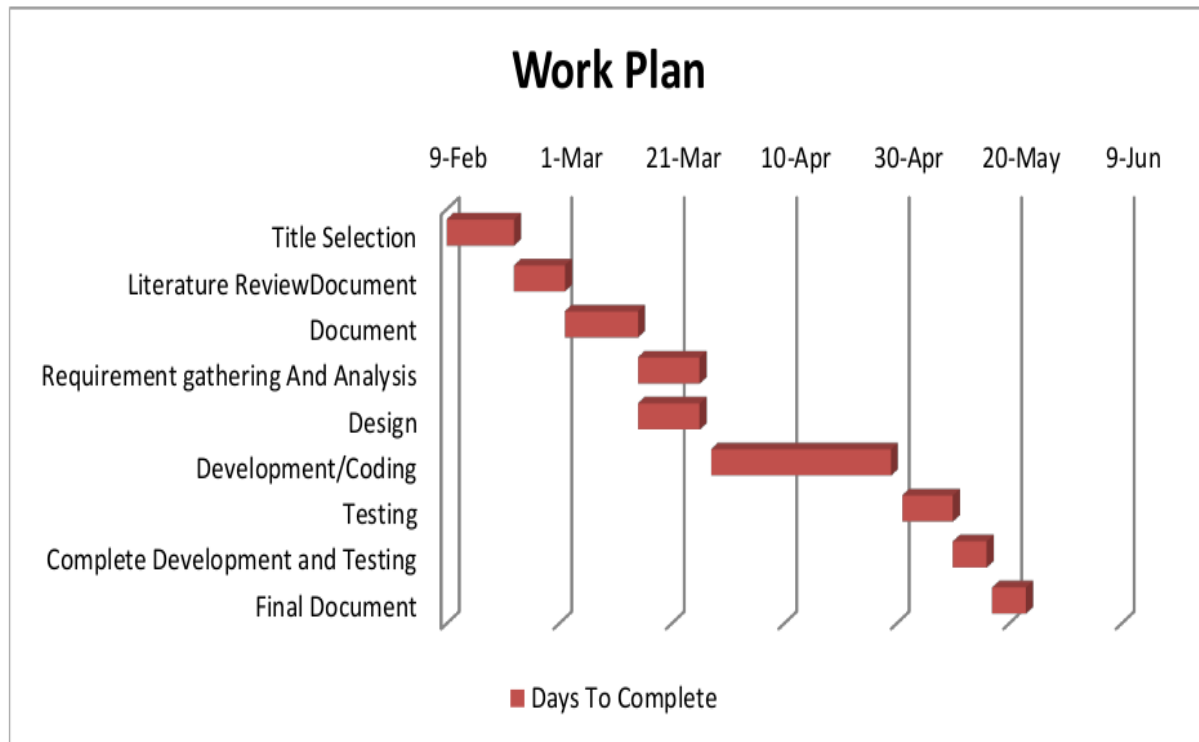
8. Reviewers Panel Comments

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10. Project Schedule / Milestone Chart /Work plan

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

Activities	Start Date	Days To Complete	End Date
Title Selection	9-Feb	12	20-Feb
Literature ReviewDocument	21-Feb	9	1-Mar
Document	2-Mar	13	14-Mar
Requirement gathering And Analysis	15-Mar	11	26-Mar
Design	15-Mar	11	26-Mar
Development/Coding	28-Mar	32	30-Apr
Testing	1-May	9	9-May
Complete Development and Testing	10-May	6	16-May
Final Document	17-May	6	22-May



13. Report Writing Guidelines

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

Bibliography

1. Godwin-Jones, R. (2011). Mobile apps for language learning. *Language Learning & Technology*, 15(2), 2-11.
2. Gangaianmaran, R., & Pasupathi, M. (2017). Review on use of mobile apps for language learning. *International Journal of Applied Engineering Research*, 12(21), 11242-11251.
3. Mehta, N. K. (2012). Mobile phone technology in English teaching: Causes & concerns. *The Modern Journal of Applied Linguistics*, 2(4), 82-92.
4. Test your typing speed in 60 seconds. (n.d.). Retrieved March 10, 2021, from <https://www.typingtest.com/>
5. Typing master - word typing game , word game - apps on google play. (n.d.). Retrieved March 10, 2021, from https://play.google.com/store/apps/details?id=com.techarts.typingmaster.fasttyping.wordtyping.fasttypinggame&hl=en_US&gl=US
6. Kids spelling learning - learn to spell and speak - apps on google play. (n.d.). Retrieved March 07, 2021, from <https://play.google.com/store/apps/details?id=com.ashvinalwadi.kidsspellinglearning&hl=en&gl=US>