PROJECT TITLE

A Mini Project Report

submitted by

AUTHOR NAME (UNIVERSITY REG. NO.)

to the APJ Abdul Kalam Technological University
in partial fulfilment of the requirements for the award of the Degree

of

Master of Computer Applications

Department of Computer Applications

MES College of Engineering

Kuttippuram, Malappuram – 679582

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Declaration

I undersigned hereby declare that the project report <PROJECT TITLE> submitted for partial fulfilment of the requirements for the award of degree of Master of Computer Applications of the APJ Abdul Kalam Technological University, Kerala, is a bonafide work done by me under supervision of <Supervisor, Designation>, Department of Computer Applications. This submission represents my ideas in my own words and where ideas or words of others have been included, I have adequately and accurately cited and referenced the original sources. I also declare that I have adhered to ethics of academic honesty and integrity and have not misrepresented or fabricated any data or idea or fact or source in my submission. I understand that any violation of the above will be a cause for disciplinary action by the institute and/or the University and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been obtained. This report has not been previously formed the basis for the award of any degree, diploma or similar title of any other University.

<Put Your Signature>

<Author Name (University Reg. No.)>

<Date>

DEPARTMENT OF COMPUTER APPLICATIONS

MES COLLEGE OF ENGINEERING, KUTTIPPURAM

CERTIFICATE

This is to certify that the report entitled **<PROJECT TITLE>** is a bonafide record of the Mini Project work during the year 2024-25 carried out by <**AUTHOR NAME (UTY REG. NO)**> submitted to the APJ Abdul Kalam Technological University, in partial fulfilment of the requirements for the award of the Master of Computer Applications, under my guidance and supervision. This report in any form has not been submitted to any other University or Institution for any purpose.

Internal Supervisor   Head of The Department

Acknowledgment

Please write your acknowledgments

<Author Name (University Reg. No.)>

Abstract

In this report, I describe the formatting guidelines for the Mini Project report submission. Read the introduction section in the Chapter 1 thoroughly before preparing your project report.

Table of Contents

List of Figures

List of Tables

Chapter 1. Introduction

Authors need to follow some simple guidelines to prepare your final Mini Project report using this Microsoft Word template. In essence, this is a sincere attempt to make your report look like this document. A number of custom styles are used to format this document. Do not remove or modify defined stylings. All the required layouts to structure your Mini Project report are provided in this template for quick preparation. So, the easy way to format your Mini Project report is to download the template and replace the content with your own. Use the stylings defined below to repeat the same styling to other parts of the document. **Note that this styling only works in Microsoft Word**.

General Instructions:

1. **Page Size:** All material on each page should fit within a rectangle of 18 x 23.5 cm (7" x 9.25"), centred on the page, beginning 2.54 cm (1") from the top of the page and ending with 2.54 cm (1") from the bottom. The right and left margins should be 3.302 cm (1.3") and 2.032 cm (0.8") respectively. The text should be in a single column with a 0 cm gutter.

2. **Typeset Text:**

    - **Normal or Body Text:** A 12-point Times New Roman font used with 1.5-line spacing and an additional spacing of 5 and 10 points before and after each paragraph. Paragraph will be aligned using Justify option. This styling is defined in the name of "Normal". Use this styling to format your paragraphs.

    - **Chapter Heading:** A 20-point, bold Times New Roman font was used, with line spacing exactly 40 points and an additional spacing of 80 and 40 points before and after headings. This styling is defined in the name "Chapter". Use this styling

to format your chapter headings, so that the Table of Contents will pick it up. Each chapter will start on a new page with chapter number.

- **Sub Heading:** A 16-point, bold Times New Roman font was used, with 1.5-line spacing and an additional spacing of 12 and 6 points before and after the sub-heading. This styling defined as "Heading 2". Use this styling to format your chapter sub-headings, so that the Table of Contents will pick it up.

- **Sub-Sub Heading:** A 14-point, bold Times New Roman font was used, with 1.5-line spacing and an additional spacing of 12 and 6 points before and after the sub-heading. This styling defined as "Heading 3". Use this styling to format your chapter sub-sub headings, so that the **Table of Contents** will automatically pick it up.

3. **Front Matters:** Front matters are the pages from the Title page to List of Figures page. Page layouts and contents are all provided in this report. However, authors are directed to update the information given in angle brackets '<' and '>'. These information includes Title of the Project, Author Name, University Register Number, Date, Supervisor Name and Designation.

4. **Headers, Footers and Page Numbering:** This report make use of header to display the chapter name and page number. Chapter name is displayed in the extreme left of the header and the page number on the extreme right side of the header. Chapter name is formatted as **"Chapter - <chapter name>"**. Make sure the **<chapter name>** changes in the header when the chapter changes. Footer is used only in the Front Matter pages (that is, pages up to the first chapter). Page numbering formats are used differently in the header and footer. Lowercase Roman numerals are used in footer, while Arabic numerals are used in header. Ensure page numbers are consistent throughout the project report. In practice, you don't need to do anything, everything will come automatically.

5. **Figures/Tables and Captions**: Any figures or tables you use in your report must be discussed in your text. Use the following guidelines when discussing and referring to tables and figures:

- Place the table/figure close to where it is first referred to in the text (preferably immediately below the paragraph in which it is first mentioned).

- Refer to tables and figures in your text by their numbers, not their placement in the text. E.g., "See **Figure 1.1** for a detailed schematic" (not "see the figure below"); likewise, for tables, "the test results are summarized in **Table 1.1**."

Tables and figures must all be labelled with numbered captions that clearly identify and describe them. Figure captions are generally placed below the figures, while table captions must be placed above the tables.

Use the following conventions to assist the reader in understanding your graphics: Table and Figures are numbered sequentially, but separately. Use *chapter-based* numbering where within each section figures and tables are numbered sequentially through each section (e.g. Table 1.1 refers to the first table in Chapter 1, Figure 2.4 refers to the fourth figure in Chapter 2). After the Figure or Table number, add a descriptive caption that clearly indicate what the figure or table illustrates without having to read anything else on the page. Figure, Table numberings must be bold and captions should be Times New Roman 11-point centered. Table header row must be bold.
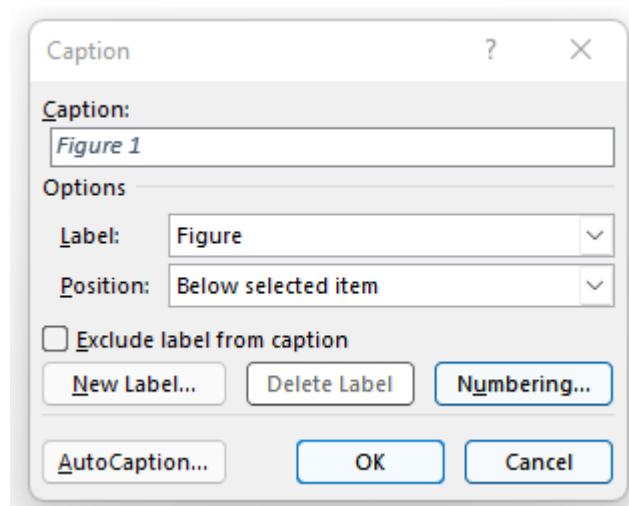

Figure 1.1: Dialog box for creating a caption for figure using Insert → Caption option [1]

Using the **Insert → Caption …** function will allow Word to keep track of the Figure and Table numbering for you, and allow you to auto-create a **List of Figures and Tables** at the beginning of your document. Use the **References → Cross-reference** and choose

"Only label and numbers". This will allow Word to refer the figure/table in your document.

If your thesis incorporates images, photos, diagrams, tables etc., not created by you, then you must include a reference for the original source in your caption as given in the descriptive caption of **Figure 1.1**.

Table 1.1: Table caption should be placed above the table

Graphics	Top	In-between	Bottom
Tables	End	Last	First
Figures	Good	Similar	Very well

6. **Table of Contents, List of Figures and List of Tables**: The **table of contents** shows readers what topics are covered in the report, how those topics are discussed (the subtopics), and on which page numbers those sections and subsections start. A **list of figures and tables** compiles all of the figures and tables that you used in your thesis or dissertation, along with their corresponding page numbers. These lists give your reader an overview of how you have used figures and tables in your document. When you add a new chapter, subheading, or sub-subheading, you need to update the **table of contents** to reflect it in this table. Likewise, when you add a new figure or table, you need to update the **list of figures/tables** to reflect the same.

Use **References → Update Table** option from the block **"Table of Contents"** to update your table of contents automatically. Likewise, for updating List of Figures and Tables, place the cursor in the corresponding page and use **References → Update Table** option from the block **"Caption"** to update the contents automatically.

7. **References and citation**: Using external sources without citing them is considered plagiarism. Authors must provide enough information so that readers can go to the original sources and review them. This involves two things: Citations and References.

   - **Citations:** briefly identify the source of borrowed information, quotes, and figures in the text. The citation must be placed at the end of the borrowed information. In this report, we are using IEEE citation styling.

- The **reference** list contains the full descriptions of only those sources that are cited in the paper. It enables the reader to find any source cited in the paper. The references are placed in alphabetical order at the end of the paper.

To create a new source in the Reference, use **References → Insert Citation → Add New Source** option. A dialog box (see **Figure 1.2**) will appear to enter the citation details. Once you have added a source to your reference list, you can cite it. To do this, put the cursor at the end of the information you want to cite. Then use **References → Insert Citation** and choose the corresponding list item.

Figure 1.2: Dialog box for creating a new source in the Reference section

8. **Note:** The draft copy of the completed project report should be submitted to your project guide/supervisor for correction on or before 30-10-2024. Two copies of the final Camera Ready Project Report duly signed by Project Guide/Supervisor and Head of Department after all corrections should be submitted to the Department on or before 11-11-2024.

About this Section

Start with some general statements to establish the background of the work, highlighting the recent trend and significance of the work done. Then discuss about the overall achievements and

lacking of existing work for the selected domain and problem. After that add few statements emphasizing the need or motivation for the developed system.

Start a new paragraph providing brief overview of your system and mentioning how your system will contribute with the recent trends. Provide comparison of your developed system with existing systems.

Provide at least one paragraph (comprising of at least 5-6 lines) about the domain of you project and the problem that you're planning to solve. Project domain must match with your project's title such as domains may include database processing, image processing, artificial intelligence, IOT, data mining, web mining, and information security etc. (these mentioned domains are just examples you need to add according to your project). Provide one or two lines about how you plan to create User Interface (UI) and User Experience (UX) to solve the problem.

Provide a paragraph (minimum 6-7 lines) to clearly mention the problem that is required to be solved or to be improved (if a solution to that problem already exists). You may start by mentioning the work that has been done so far by others (in few statements) and then you may specify the issues, problems or limitations of existing systems that you want to cover or improve in this project.

1.1 Motivation

The motivation of your work should be clearly communicated to the reader. Why is this interesting to you; why is it interesting for third parties (public, university, your company, fellow students, etc.)?

Make sure to include some background for the project that allows us to understand the context.

1.2 Objectives

Describe the problem that your Mini Project is focusing on. Try to come up with a certain hypothesis that your project will certainly help the targeted community.

This section should also outline the existing/related works by which your project builds upon: papers, books, links to webpages, tutorials, etc. All references should be resolved in the reference

section by putting the reference directly in the text (do not use footnotes). For an example, to refer and article or similar which are authored can be cited by Qassem et al. [2] or if you are referring an online resource/webpage use like Master in IT Thesis Track at Aarhus University [3]. It is good to address how your work extends, uses, or builds upon the cited work.

1.3 Contributions

You may start this paragraph by highlighting your contributions using bullet points with respect to the existing system and can emphasize on the usefulness of these contributions.

1.4 Report Organization

The project report is divided into four chapters. Chapter 2 describes system study where it explains the existing system and its limitations. This chapter also gives an insight to the proposed system and it functionalities. Chapter 3 details the methodology used for implementing the project. In methodology, modules of the project, and sprint details are provided. Chapter 4 gives the results and discussions. Finally, Chapter 5 gives the conclusion.

Chapter 2. System Study

Give a brief introduction of the problem (proposed system) which is under our consideration. The paragraph should not be more than 3 to 5 lines.

2.1 Existing System

In this section, you should discuss and elaborate the problems identified from existing systems/existing work. These identified problems (limitations) can be with respect to technology, functional requirements or non-functional requirements. At the end of this paragraph, you can discuss how you can improve the existing systems in just 2 or 3 lines so that you can set the scope of your project from these identified problems (feature gaps).

The existing system may be a manual system or one that is already present in literature. If it is already in literature, provide few recent reviews about those systems along with references.

2.2 Proposed System

In this section, you should define the boundary of your proposed solution in 2 paragraphs. You can use another paragraph to write down the benefits of the existing system. Benefits can also be written with respect to technology, functional requirements or non-functional requirements. Also mention the targeted users of the proposed system.

2.3 Functionalities of Proposed System

Write down the broad functions of your proposed system. Each functionality should be highlighted with a caption and then describe in detail. You need not discuss functionalities at its minute level in this section.

Chapter 3.   Methodology

Write a brief introduction on the needs of software methodology for building your project.

3.1 Introduction

Write down the project design methodology used. For example, if you are using Agile methodology to design your project, please give an introduction about the Agile methodology.

3.2 Software Tools

You may start this section by listing the software (tools or languages) used for the development of the project (see **Table 3.1**). you may add a table to list all required tools or languages (The table must be referred in this section). For example,

Table 3.1: List the software tools or languages used for the project development

Operating System	Windows 10/11
Front End	JavaScript, React, HTML, CSS etc..
Back End	Python, PHP, Node etc..
Framework	Django, Laravel, Express etc..
Database	MySQL, SQLite, MongoDB etc…
IDE	Visual Studio Code, PyCharm etc..
Version Control	Git
Cloud Store (if used)	Amazon AWS, Microsoft Azure etc..

Then you need to justify why you took these tools or languages to build your project, clearly giving a half to full page description with specific sub-subheadings. You can avoid describing HTML, CSS and JavaScript in the report as these tools are mandatory for a web application.

3.2.1 Python

Justify why you have chosen Python as a backend.

3.2.2 Django

Justify why you have chosen Django as framework.

Continue describing all the above listed tools used for the project development.

3.3 Module Description

Write few lines about what system modules are. Write briefly about the modules of your project. Then, provide the detailed illustrations on different functionalities provided in each module using separate sub-subheading.

Note: When describing modules, you should provide the source code of any core function you would like to highlight in that module and provide a detailed explanation of it. Authors developing technical projects (image processing, machine learning, IOT, data science, data processing & analysis, etc.) that involve developing new or using existing models, algorithms need to highlight these things with source code and model architecture.

3.3.1 Name of the first Module

Describe the module under this heading

3.3.2 Name of the second Module

Describe the module under this heading

Continue describing all the modules used in the project.

3.4 User Story

Provide user story in tabular form with table number and refer that table in the section.

3.5 Product Backlog

Provide product backlog in tabular form with table number and refer that table in the section.

3.6 Project Plan

Provide project plan in tabular form with table number and refer that table in the section.

3.7 Sprint Backlog

Provide sprint details in tabular form with table number and refer that table in the section.

3.8 Database Design

In this section you should provide the schema diagrams of your database. You can either place the schema diagram as a screenshot (image) or provide the schema manually in a tabular format. When specifying a schema, you must specify the purpose of this schema in your project on 1 or 2 lines. Please specify the figure number if you are providing the schema diagram as a figure, or provide the table number if you are providing the schema design in a tabular format.

Chapter 4.   Results and Discussions

In this section, you can write an introduction about this chapter.

4.1 Results

In this section, you can add screenshots (image) of the forms you want to highlight. Give the figure a numbers and a caption that appropriately describes it. When adding a form as an image, ensure that the figure provided contains valid data in the form field. Screenshots of forms with invalid/empty form fields should not be inserted. Please describe in a line or two how this form works in your project. Try to avoid screenshots of less important forms like login and register in your project. For example,

Figure 4.1: Landing Page [4]

Figure 4.1 gives the landing page of the application. This is a public web page where any one see. This web page provides a brief introduction to the hospital and act as a navigation page to login.

Figure 4.2: Patient profile page [4]

Figure 4.3: Patient payment receipt [4]

Chapter 5.   Conclusion

Write a paragraph that should include the following points

- Overview of your project
- Synthesis of key features of your project
- Results/Achievements of the developed system

General rules for writing conclusion chapter:

- State your conclusions in clear, simple language.
- Do not simply reiterate your results or the discussion.
- Reminds the reader of the strengths of your main argument(s) and reiterates the most important evidence supporting those argument(s).

In this section, you may also write about the limitations of your developed project or the objectives that could not meet in the project development. When writing this, you should clearly state how these constraints came in the project development, or why you were unable to meet certain objectives. Along with that, you may need to specify how these limitations can be overcome in a future work.

References

[1] S. Vinz., "Figure and Table Lists | Word Instructions, Template & Examples," Scribbr, 13 October 2015. [Online]. Available: https://www.scribbr.com/dissertation/figure-and-table-lists-in-your-dissertation/. [Accessed 19 October 2024].

[2] M. Qassem, Thesis, Dissertation and Article Writing, 2014.

[3] A. Universitet, "EVU Master Thesis, Spring 2024," October 2024. [Online]. Available: https://baerbak.cs.au.dk/c/mtt/.

[4] B. Esha, R. Akansha and M. Chaudhary, "Hospital Management System - Software Engineering Project Report," Mata Sundari College for Women, [Online]. Available: https://mscw.ac.in/. [Accessed 20 October 2024].

Appendix

Appendix A   Data Flow Diagram

Add DFD figures

Appendix B   ER Diagram

Add ER diagrams

Appendix C   Source Code

Add source codes