FYP Report Guidelines



Department of Computer Science FACULTY OF ENGINEERING & CS NATIONAL UNIVERSITY OF MODERN LANGUAGES RAWALPINDI

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FYP Report Organization

The project report should abide by the reporting standards. The given sequence of content should be followed to make the report comprehendible.

- Title Page
- Abstract
- Final Approval Certificate
- Declaration
- Plagiarism Certificate
- Turnitin Originality Report
- Dedication (optional)
- Acknowledgement (optional)
- Table of Contents
- List of Figures
- List of Tables
- List of acronyms (optional)
- Chapter 1 (Introduction)
- Chapter 2 (Background/Existing Work)
- Chapter 3 (System Requirement Specification)
- Chapter 4 (System Modeling and Design)
- Chapter 5 (System Testing and Validation)
- Chapter 6 (Conclusion)
- Appendices
- References

FYP General Instructions

The general guidelines for report formatting are mentioned below:

- Report should contain minimum **8500** words and maximum **10500** words (excluding the word count of initial pages, table of contents, list of figures, list of tables, chapters' title pages and references)
- Page layout should be of A4 size with top, bottom, and right margin as 1 inch and left margin as 1.25 inches.
- Times New Roman font style is to be followed throughout the report.
- A chapter title page should be placed at the start of each chapter containing chapter number and chapter name. The chapter number should be in 18 pt size (bold) while chapter name must be in 22 pt size (bold). Same is applicable to title pages of references and appendix. These title pages should not contain page number.
- All headings should be written in bold. First level heading, second level heading and third level heading must have 16, 14 and 12 pt size, respectively.
- The headings should be numbered according to chapter number (e.g. 1.1, 1.2) while all the subheadings should be numbered according to the number of their parent headings (e.g. 2.1.1, 2.1.2).
- Body text should be in 12 pt size and must be justified on both right and left sides.
- If under some heading (a) it is required to refer the content of some other heading (b), only the heading number of (b) should be used as reference.
- Bullets are not allowed in the text body except the objectives.
- For figure/table captions use Arial Narrow with size 10 pt. Table caption must be provided at the top of table while figure caption must be given below the figure.
- Figures and tables should be numbered with chapter number (not with heading number) as prefix, for example figure in chapter 2 should be numbered as Figure 2.1, Figure 2.2, and Figure 2.3 etc.
- Figures and tables must be referred with their number, in the text, before they appear in the report.
- **References:** Provide the numbered list of all the books, journals, research articles, web sites that you referred for the project under Bibliography/References at end of your report. Proper citation of these listed references at appropriate location in the body text is compulsory.
- **Page Numbering:** The first few pages from 'Final Approval Certificate' to 'List of Tables' should be numbered in roman as (i, ii, iii). From chapter 1 onwards (1, 2, 3) numbering style should be used. (Note: All the chapter's title pages will not contain any page number but their page numbers will be counted).

FYP Report Sample

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PROJECT NAME



Font style: Time New Roman, **Font size**: 16 Bold&Center aligned

Do not use Ms/Mr/Sir, can use Dr./Prof./Engr.

Student Name 1

Student Name 2

Student Name 3

Supervised By

Supervisor Name

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Submitted for the partial fulfillment of BS Computer Science degree to the Faculty of Engineering & CS

DEPARTMENT OF COMPUTER SCIENCE NATIONAL UNIVERSITY OF MODERN LANGUAGES, RAWALPIDNI

June, 2021

Font style: Time New Roman, **Font size**: 14 Bold, Center aligned, **Date** must be at last line of the page.

First paragraph should start with **brief overview and the purpose of developed project** then it should have few statements about the **existing systems and the identified gap/problem**. After that it should have few statements about the **effectiveness/significance** of the work done in this project.

Second paragraph should mention the **main features/scope** of the developed system, the **proposed methodology/solution** and the **tools** which have been used for the development of the project.

Third paragraph should briefly discuss the system testing; including which **testing technique** has been used, on which system (hardware Specs) the developed system has been evaluated and what is the **overall result** of testing or **what has been achieved**.

Fourth paragraph should mention the **limitations of the developed project** and the possible improvements or enhancements that can be made in this project, as **future work**, to overcome these limitations.

General Rules:

- No of Pages: Only one (at extreme condition it may have 2 pages)
- No of Paragraphs: 3-4
- No of Words: Minimum 250 words



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	Final Approval		
	Tinai Appiovai		

It is certified that project report titled 'Title of your project' submitted by Name of Student! Name of Student2 and Name of Student3 for the partial fulfillment of the requirement of "Bachelor's/Master's Degree in Computer Science" is approved.				
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Name of Dean Acting Dean Engineering & CS:	Signature:			
Dr. Noman Malik HoD Computer Science:	Signature:			
Name of Coordinator Project Coordinator:	Signature:			
Supervisor Name Supervisor:	Signature:			



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We hereby declare that our dissertation is entirely our work and genuine / original. We understand that in case of discovery of any PLAGIARISM at any stage, our group will be assigned an F (FAIL) grade and it may result in withdrawal of our Bachelor's degree.

Group members:

Name of Student 1

Name of Student 2

Name of Student 3

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PLAIGRISM CERTIFICATE

This is to certify that the project entitled "Title of your project", which is being submitted here with for the award of the "Degree of Bachelor's/Master's in Computer Science". This is the result of the original work by Name of Student1, Name of Student2 and Name of Student3 under my supervision and guidance. The work embodied in this project has not been done earlier for the basis of award of any degree or compatible certificate or similar tile of this for any other diploma/examining body or university to the best of my knowledge and belief.

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ACKNOWLEDGMENT

(Optional)

Students may acknowledge the persons who supported them in the project work but should be very brief and precise.

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Chapter 1 INTRODUCTION

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.

1.1. Project Domain:

Provide at least one paragraph (comprising of at least 5-6 lines) about the domain of you project and the problem that you have solved in this project. Project domain must match with your project's title. Project domains may include image processing, artificial intelligence, IOT, data mining, web mining, and information security etc. (Note: *These mentioned domains are just examples you need to add according to your project*).

1.2. Problem Identification:

Provide a paragraph (minimum 6-7 lines) to clearly mention the problem that was 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 covered or improved in this project.

1.2.1 Proposed Solution:

Write a paragraph (minimum 6-7 lines) on the overview of your project.

1.2.2 Objectives

In Bullets highlight the objectives (what you want to achieve). Each bullet should start with "To" e.g.

- 1. To design a system that......
- 2. To develop a system that....
- 3. To improve.....
- 4. To reduce......
- 5. To increase....
- 6. To validate the developed system.....

1.2.3. Scope of the Project

Provide a paragraph (minimum 6-7 lines) that clearly describes the boundary of your system detailing the functionalities your system provides. You may also describe the environment in which the system will be used.

1.3. Effectiveness / Usefulness of the System

Write a paragraph (minimum 6-7 lines) detailing the usefulness or application of your develop project. You may start this paragraph by highlighting the contribution of your system with respect to other existing systems and then you can emphasize on the usefulness or application of your project.

1.4. Resource Requirement

Write few lines to describe this section

1.4.1 Hardware Requirement

Write a Paragraph mentioning the specs of hardware, required for the development and execution of the developed system. In addition to this paragraph, you may add a table listing all specs of required hardware (The table must also be referred in this paragraph).

1.4.2 Software Requirement

Write a paragraph detailing the software (tools or languages) required for the development of the project. In addition to this paragraph, you may add a table listing all required tools or languages (The table must also be referred in this paragraph).

1.4.3 Data Requirement

Machine Learning based project needs some datasets to train or test the model. The requirement or details of such datasets can be mentioned here. It is only for machine learning based projects.

1.5 Report Organization

Write a paragraph about the organization of your project e.g. in how many chapters this report is organized and what each chapter is detailing.

Chapter 2 BACKGROUND AND EXISTING SYSTEMS

First paragraph of this chapter should be consisting of brief introduction of the problem (proposed system) which is under our consideration. This paragraph should not be more than 3 to 4 lines.

Second paragraph should consist of chapter composition and organization

2.1. Related Literature Review

In this section, you have to discuss at least three papers related to your project. These papers may relate to your project in terms of technique / algorithm or addressed problems. There should be one paragraph for each paper containing overview of the paper, findings and observed limitations of the paper.

At the end of this section. There should be a table to provide summary of discussed papers. Table 2.1 is a sample table for papers' summarization.

Year	Authors	Contribution	Techniques	Limitations/Remarks

Table 2.1: Summary of Reviewed Literature

2.2. Related Systems/Applications

In this section you should discuss the existing systems which are already developed or proposed by other researchers/developers. These existing system should be discussed in terms of their functionalities, advantages and limitations. There should be one paragraph for each existing system.

At the end of this section, there must be a table to provide summary of discussed systems. Table 2.2 is a sample table for the summarization of discussed systems.

Year	System	Contribution	Tool/Technologies	Limitations	Applications

Table 2.2: Summary of Existing System

2.3. Identified Problem from Existing Work

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 so that you can set the scope of your project from these identified problems (research gaps). Identified problem must be written based on work discussed above.

2.4. Selected Boundary for Proposed Solution

In this section, you should define the boundary of your proposed solution in 2 paragraphs.

First paragraph should consists of functionalities which you implemented in your system along with their need / significance (with reference to the section 2.3)

In the second paragraph, you should discuss all those functionalities which are not implemented in your system due to some reasons.

Chapter 3 SYSTEM REQUIREMENTS AND SPECIFICATIONS

In first paragraph, discuss about the composition of this chapter (such as this chapter is about the modules/software requirements and non-functional requirements of the system). Start by writing a few lines about this chapter.

Second paragraph should consist of the chapter organization

Note: Every system has different modules/requirements and non-functional requirements so do not try to copy-paste the examples given in the template. They may go wrong in the case of your project.

3.1. System Specification

Write a paragraph about system specifications. Briefly explain what kind of specifications you are going to explain in this chapter.

3.2. System Modules

Write a few lines about what system modules are. Tell briefly about the modules of your project. If possible, also state the rational for designing your system into the said modules. Write each module as a second level heading. For example

3.2.1. Name of first Module

Describe the module under this heading

3.2.2. Name of second Module

Describe the module under this heading

General Guidelines:

- The concept of module comes from modular programming paradigm which advocates that software should be composed of separate, interchangeable components called modules by breaking down program functions into modules, each of which accomplishes one function and contains everything necessary to accomplish this.
- A module is a separate unit of software or hardware. Typical characteristics of modular components include portability, which allows them to be used in a variety of systems, and interoperability, which allows them to function with the components of other systems. The term was first used in architecture.

3.3. Functional Requirements/Software Features

Write a few lines (2-3 only) explaining functional requirements of your project. These functional requirements should be aligned to your project scope and objectives.

Briefly describe overall features/functional requirements. After that, describe each feature/functional requirement as second level heading. For example

3.3.1 Feature 1

Describe briefly the functional requirement or feature.

3.4. Non-Functional Requirements

Start by explaining non-functional requirements. Briefly explain the NFR's of your system. Then describe each NFR as a second level heading. Do not write each NFR randomly, there should be a rational for each NFR and it should be measurable.

3.4.1 Usability

For example if one of your non-functional requirements is usability, tell what usability is. Why it is required for your system. Tell how would you measure usability?

For example "if a computer illiterate person learns to use this software in two attempts this software is said to be usable" (it may not be exactly this in case of your project)

- Functional requirements describe ways a product must behave or any requirement which specifies what the system should do whereas nonfunctional requirements, also known as quality attributes, describe the general software characteristics or any requirement which specifies how the system performs a certain function or quality attributes
- There are many kinds of non-functional requirements (quality attributes) such as Speed, Size, Usability (ease of use), Reliability, Robustness, and Portability. Each system can fulfil only number of such quality attributes. So please only discuss only those non-functional requirements those are relevant to your system.

Chapter 4 SYSTEM MODELING AND DESIGN

Start by adding few lines in the beginning that describe why system design and analysis is required. Then briefly write about the system under discussion and provide an overview of specific system design and analysis diagrams used in the **project under discussion**. After that you may provide the organization of this chapter.

Note: Not every diagram is to be developed for every system. It depends on the nature of software system and the level of analysis required, on the basis of which it is decided which model is to be built and which not. For every diagram, write a paragraph under the heading to illustrate the figure

4.1. System Design and Analysis

Describe the different analysis and design models you have used.

4.2. Use Case Diagrams

Write a few lines about use case diagram and its significance according to your project.. These few lines will contain the explanation about the diagram that is drawn. Refer the diagram in the paragraph using the following syntax (as shown in Figure 4.1).

General Guidelines:

- Use-Case diagram can be skipped if there is no user interaction with the system. The diagrams should be clear. Preferable tools to draw the diagrams are (i) Rational Rose, (ii) MS. Visio etc.
- (Figure and table: For caption use Arial Narrow, size 10. Provide table title at the top and figure title below the figure. Figures and tables should be numbered with chapter number as prefix, such as, 4.1, 4.2, 4.3 etc.).

Use case diagrams are must as they depict the functionalities performed with the interaction of user. They help viewing the system from user's perspective. However use case diagram can be skipped only and only if there is no interaction of user with the system.

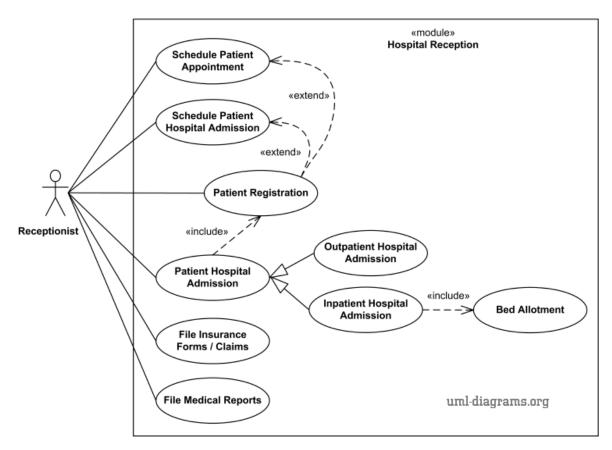


Figure 4.1: Main Use Case Diagram

4.3. Full Dress Use Case/Detailed Use Case

Write a few lines about the importance of full dress use cases. Mention the use cases you have chosen to be full dressed. Give the **rationale** for selecting these use-cases for detailing.

General Guidelines:

- Not all use cases are needed to be shown in detail.
- Full dress use cases are not meant to be developed for every use case.
- Full dress use case /detailed use cases are developed only for those use cases which are complex and need explanation.
- Use cases like sign up/login do not need to be full dressed.

After that you need to write full dressed use case for any (or some) use cases mentioned in use case diagram. For example as in figure 4.1, there are eight use cases, so each use case can be shown as a separate full dress use case. A simple template for full dress use case is as follows:

4.3.1. Arm/disarm systems - full dress Use case

Write the overview of this particular full dress use case. The student has to refer the table in the description too. A template for the full dress use case is provided as Table 4.1.

Table 4.3: Full Dress Use Case for Arm/disarm systems

Use Case Selection	Comment
Use Case name	Starts with a verb.
Scope	The System under design.
Level	User goal or "subfunction".
Primary Actor	Calls on the system to deliver its services
Stakeholders and Interests	Who cares about this use case, and what do they want?
Pre-conditions	What must be true on start and worth telling the reader?
Success Guarantee	What must be true on successful completion and worth telling the reader?
Main Success Scenario	A typical unconditional Happy path scenario of success.
Extensions	Alternate scenarios of success or failure.
Special Requirements	Related Nonfunctional requirements.

4.4. Activity diagram:

Write a few lines about activity diagram. Clearly mention the perspective for which you are drawing an activity diagram (see the general guidelines for different perspectives). Explain your activity diagram and refer the figure. An example of an activity diagram is shown in Figure 4.2.

General Guidelines:

Activity diagram is basically a flowchart to represent the flow from one activity to another activity. Activity diagram can be used for –

- Modeling work flow by using activities.
- Modeling business requirements.
- High level understanding of the system's functionalities.
- Investigating business requirements at a later stage.

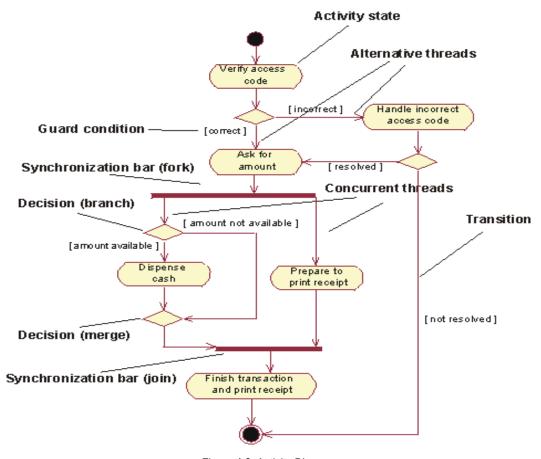


Figure 4.2: Activity Diagram

4.5. Data Flow Diagram:

Start by writing about Data Flow diagram (DFD). Mention the significance of developing DFD for your project. Explain your DFD and refer the figure(s) here. An example of level 0 DFD is shown in Figure 4.3.

- A data-flow diagram is a way of representing a flow of data of a process or a system.
- Provides information about the outputs and inputs of each entity and the process itself.
- It has no control flow, there are no decision rules and no loops.
- There are different levels of DFD, for FYP report Level 0 and level 1 are MUST. Level 2 is optional. Further detailed levels may not be required.
- DFD is developed only if there is some data involved. That is; If there is any input data which your software receives, apply some process over it, and then shows the output.

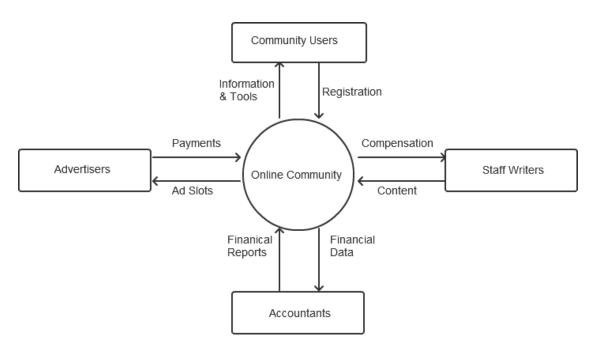


Figure 4.3: DFD Level 0

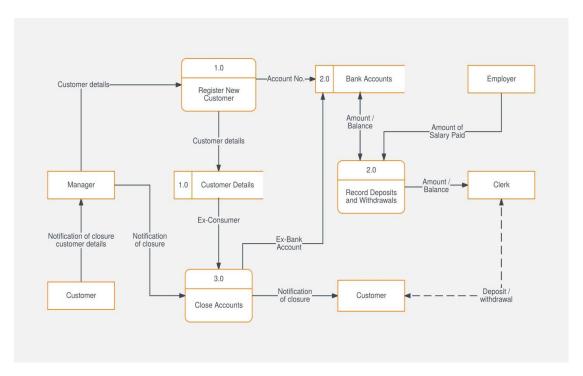


Figure 4.4: DFD Level 1

4.6. System Sequence Diagram

Introduce SSD and write about your urge of drawing SSD with respect to your project. Clearly mention the scenarios/use cases for which you are developing SSD. Explain your SSD and refer the figure(s) here. An example of an SSD is shown in Figure 4.5.

- A System Sequence Diagram is an artifact that illustrates input and output events related to the system under discussion.
- System Sequence Diagrams are typically associated with use-case realization in the logical view of system development. (These are basically the diagrammatic view of the full dress uses cases.)
- SSDs are derived from use case.

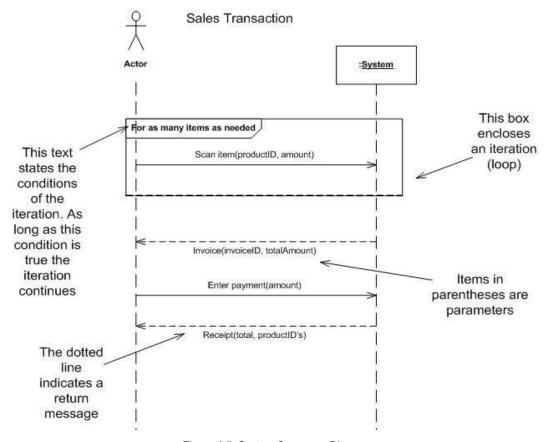


Figure 4.5: System Sequence Diagram

4.7. Sequence Diagram

Write a few lines about SD. Clearly tell the events for which you are developing SD. Explain your SD and refer the figure(s) here. An example of an SD is shown in Figure 4.6.

General Guidelines:

- A sequence diagram simply depicts interaction between objects in a sequential order
- Sequence Diagrams are interaction diagrams that detail how operations are carried out.)
- SSDs are derived from use case.

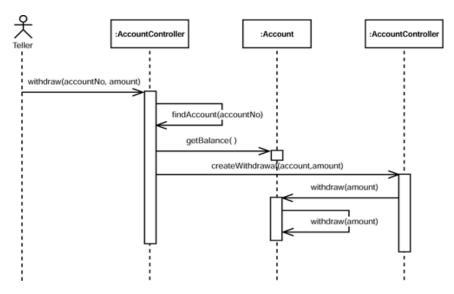


Figure 4.6: Sequence Diagram

4.8. Design Class Diagram

Start by writing about the Design Class Diagram (DCD). Discuss the important classes that are used in your project. Explain your class diagram and refer the figure(s) here. An example of a class diagram is shown in Figure 4.7.

- Class diagram is a must in FYP report. However if there are no classes involved (for example if the project merely involves networking) the design class diagram is not applicable.
- It is developed in accordance with the software classes of your system. However it may show the interaction of different instances.

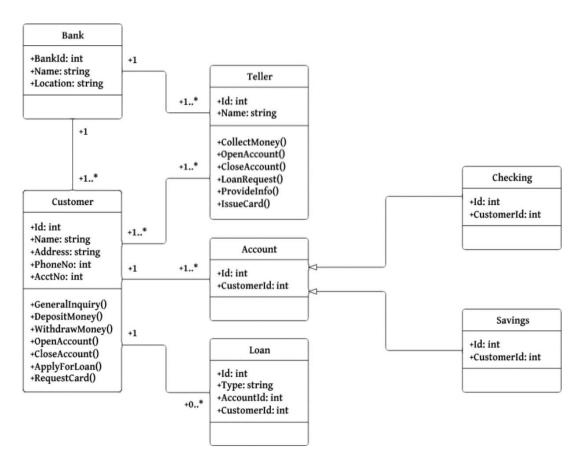


Figure 4.7: Class Diagram

4.9. Architectural diagrams

Write a little about architecture diagrams. Tell which architecture diagram you are following and give the reason.

- Architecture serves as a blueprint for a system. It provides an abstraction to manage the system complexity and establish a communication and coordination mechanism among components
- These (or any of these) diagrams are to be built only where a diagrammatic illustration is necessary.
- The further diagrams in the architecture diagram can be interface design, component design and deployment diagram. If necessary these can be added to the project. Provide rationale for each diagram.

4.9.1.Interface Design

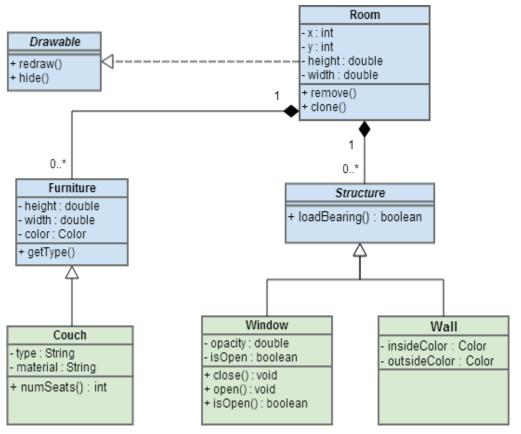


Figure 4.8: Interface Design Diagram

4.9.2. Component Level design

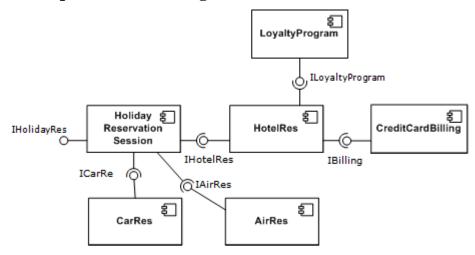


Figure 4.9: Component Level Design

4.9.3 Deployment

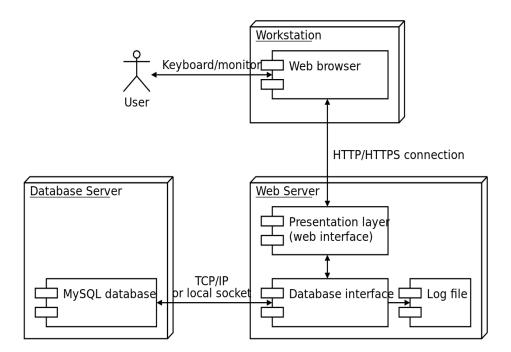


Figure 4.10: Deployment Diagram

Chapter 5 SYSTEM TESTING AND VALIDATION

Write a paragraph to describe this chapter and provide the organization of this chapter.

5.1. System testing

Tell briefly about system testing. What is the importance of testing a software? Write about the overview of testing techniques you applied. Write another paragraph to discuss the overall analysis of testing results. Analysis should match the objectives.

5.2. Testing Techniques

Write few lines mentioning testing techniques in general. Describe which type of testing techniques **you have used to test** the developed system (The testing techniques maybe White Box, Black box, Unit Testing, Integration Testing etc.). After this write about each testing technique, that you have used, in sub heading as follow:

5.2.1 Name of testing technique 1 (for example white box, black box, integration, unit etc.)

Write few paragraphs, where you need to:

- Define the testing technique1
- Mention the rational for using that particular testing technique
- Mention how you carried out the test
- Discuss the results of test

5.5.2. Name of testing technique 2 (for example white box, black box, integration, unit etc.)

Write few paragraphs, where you need to:

- Define the testing technique2
- Mention the rational for using that particular testing technique
- Mention how you carried out the test
- Discuss the results of test

5.3. Test Cases

Write few lines about test cases in general and then describe this section including how many test cases you have designed to test different functionalities of the developed project. After this write about each test case, that you designed, in sub heading as follow:

- Test cases are important to mention.
- Your test cases should be aligned to your prioritized requirements
- You do not test each and every functionality of the system. Test cases (case/functionality to be tested according to the requirements or risks/priorities.
- Each test case is written as a third level heading.

5.3.1.Test Case1: Name of Test Case

Write few lines about the features for which you have designed this test case. Refer the respected table (e.g. table 5.1) in the paragraph.

Table 5.4: Test Case1

GENERAL INFORMATION				
Test Stage:	□ Unit □ Functionality □ Integration □ System □ Interface □ Performan □ Regression □ Acceptance □ Pilot Specify the testing stage for this test case.			
Test Date:	mm/dd/yy	System Date, if applicable:	mm/dd/yy	
Tester:	Specify the name(s) of who is testing this case scenario.	Test Case Number:	Specify a unique test number assigned to the test case.	
Test Case Description:	Provide a brief description of wh	nat functionality the case	will test.	
Results:	□Pass □Fail	Incident Number, if applicable:	Specify the unique identifier assigned to the incident.	
	INTRODUCTI	ON		
Requirement(s) to be tested:	Identify the requirements to be tested and include the requirement number and description from the Requirements Traceability Matrix.			
Roles and Responsibilities:	Describe each project team member and stakeholder involved in the test, and identify their associated responsibility for ensuring the test is executed appropriately.			
Set Up Procedures:	Describe the sequence of actions necessary to prepare for execution of the test.			
Stop Procedures:	Describe the sequence of actions necessary to terminate the test.			
	ENVIRONMENTAL	A NEEDS		
Hardware:	Identify the qualities and configuration execute the test case.	urations of the hardware	required to	
Software:	Identify system and application software required to execute the test case. Specify any software that the test case will interact with.			

Procedural Requirements:	Describe any constraints on the test procedures necessary to execute the test case.	
TEST		
Test Items and Features:	Identify and describe the items and features that will be exercised by the test case. Group the test cases into logically related scenarios that test related items and features. For each item or feature, a reference to its associated requirement source should be included.	
Input Specifications:	Define each input required to execute the test case, and reference any required relationships between inputs.	
Procedural Steps:	Describe the sequences of actions necessary to prepare and execute the test case. Provide detailed test procedures for each test case; explain precisely how each test case will be executed.	
Expected Results of Case:	Describe the outcome anticipated from the test case. Specify the criteria to be used to determine whether the item has passed or failed.	
ACTUAL RESULTS		
Output Specifications:	Define all of the outputs and features required of the test case and provide expected values. While executing the test, record and describe the visually observable outputs as they occur. Produce tangible evidence of the output such as a screen print. At the conclusion, describe the actual outcome. Indicate whether the test passed or failed, and identify any discrepancies between the expected results and the actual results.	

5.4. Non –functional requirements

Write few lines about the non-functional requirements in general After this write about each non-functional requirement of your system as sub headings. Some of the common non-functional requirements along with the measurement criteria are listed in table 5.2.

- Nonfunctional requirements should not be stated as "software is very useful" "software is efficient" "software was tested and is accurate" NO.
- Follow proper metrics for measuring nonfunctional requirements
- Clearly explain the purpose of this table

Table 5.5: List of Common Non Functional Requirements

Property	Measure
Speed	Processed transactions/second
	User/event response time
	Screen refresh time
Size	Mbytes
	Number of ROM chips
Ease of use	Training time
	Number of help frames
Reliability	Mean time to failure
	Probability of unavailability
	Rate of failure occurrence
	Availability
Robustness	Time to restart after failure
	Percentage of events causing failure
	Probability of data corruption on failure
Portability	Percentage of target dependent statements
	Number of target systems

Chapter 6 CONCLUSION

Write a paragraph to describe this chapter; what does this chapter contain and how it is organized. This chapter usually has two sections/paragraphs. In the first section, you will write concluding remarks, and in the second section future work will be discussed.

6.1. 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:

- State your conclusions in clear, simple language.
- Do not simply reiterate your results or the discussion.
- Your writing should remind the reader of the strengths of your main argument(s). It should reiterate the most important evidences supporting those argument(s).

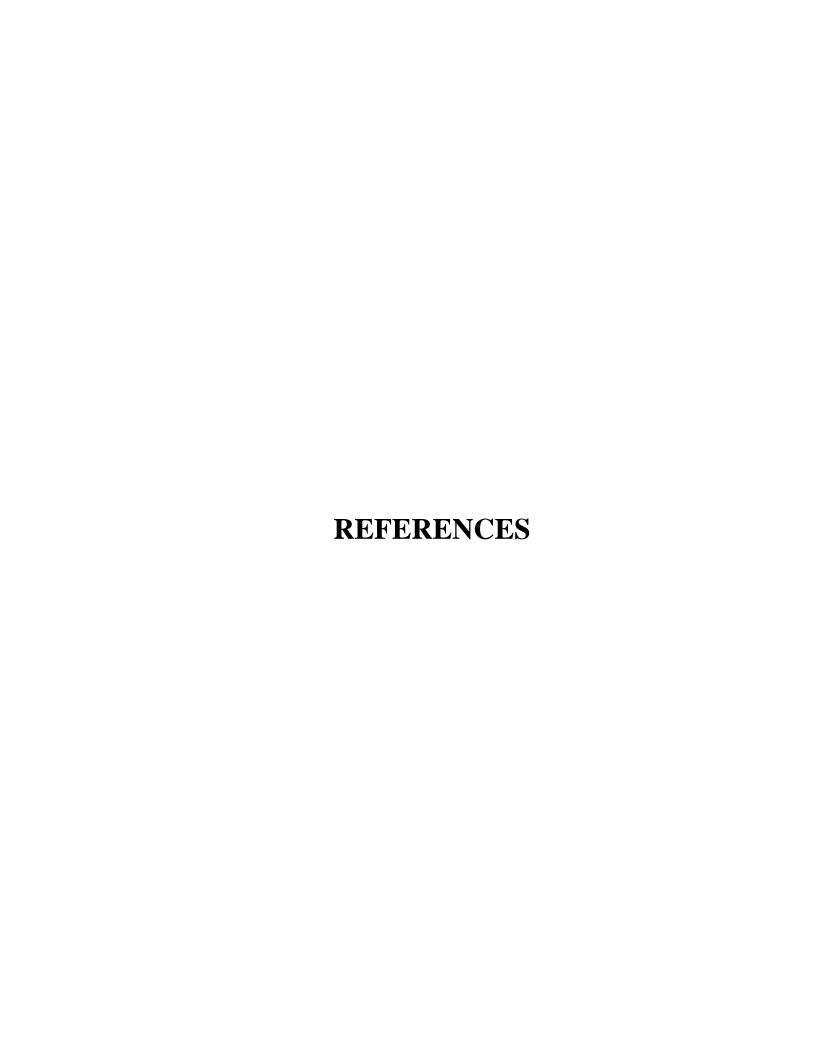
6.2. Limitations and Future Work

In this section, write about the limitations of your developed project. Also mention how these limitations can be overcome as a future work.

- Recommendations are often included with a report's conclusion, although they serve different purposes.
- Recommendations suggest actions to be taken in response to the findings of a report.
- Report structure should lead up to the recommendations and provide justification for them.

APPENDIX – I

Appendices should be inserted as Appendix – I, Appendix – II, and so on. These should include extra information (conversions tables, Source codes, long tables, proofs, definitions of terms, or any material that would help in understanding contents of the report/thesis), software installation guide and user manual of the system etc.



Note: The list of books, articles and other sources should be listed at the end of report. All references must be used/cited in the text. The general format is as follows:

Book

1. W.K. Chen. *Linear Networks and Systems*. Belmont, CA: Wadsworth, 1993, pp. 123-35.

Book Chapters

2. J.E. Bourne. "Synthetic structure of industrial plastics," *in Plastics*, 2nd ed., vol. 3. J.Peters, Ed. New York:McGraw-Hill, 1964,pp. 15-67.

Article in a Journal

3. G. Pevere. "Infrared Nation." *The International Journal of Infrared Design*, vol. 33, pp. 56- 99, Jan. 1979.

Articles from Conference Proceedings (Published)

4. D.B. Payne and H.G. Gunhold. "Digital Sundials ang broadband technology," in *Proc.* IOOC- ECOC, 1986,PP. 557-998.

Papers Presented at Conferences (Published)

 B. Brandli and M. Dick. "Engineering names and concepts," presented at the 2nd Int. Conf. Engineering Education, Frankfurt, Germany, 1999.