Shahjalal University of Science and Technology 18

Department of Computer Science and Engineering16



Title of the Project

Use 14 point Times New Roman font

**Student:** *(Name, Reg. no, Year/Semester, Dept.)*

**Supervisor:** *(Name, Designation, Dept.)*

29th March 201516

Title page

Shahjalal University of Science and Technology 18

Department of Computer Science and Engineering16



Title of the Project

Use 14 point Times New Roman font

A Project submitted to the Department of Computer Science and Engineering,  
Shahjalal University of Science and Technology, in partial fulfillment of the requirements  
for the degree of Bachelor of Science in Computer Science and Engineering.12

**Student:** *(Name, Reg. no, Year/Semester, Dept.)*

**Supervisor:** *(Name, Designation, Dept.)*

29th March 201516

Recommendation Letter from Supervisor16

This student, …………………., whose project entitled …..………., is under my supervision and agree to submit for examination.

Supervisor’s Name

Designation   
Department

Qualification Form of Bachelor Degree16

We hereby certify that this project titled …..*(title)*, submitted by ………(*student name)* conforms to acceptable standards and is fully adequate in scope and quality to fulfill the requirements for the degree of Bachelor of Science in Computer Science and Engineering.

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| --- | --- | --- |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Head of the Dept.  Name & Designation | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Chairman, Exam. Committee  Name & Designation | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Supervisor  Name & Designation |
|  |  |  |

Abstract16

The abstract is a very brief summary of the report's contents. It should be about half a page long. Somebody unfamiliar with your project should have a good idea of what it's about having read the abstract alone.11

Keywords12

Not more than 15 keywords.11

Acknowledgements16

It is usual to thank those individuals who have provided particularly useful assistance, technical or otherwise, during your project. Your supervisor will obviously be pleased to be acknowledged as he or she will have invested quite a lot of time overseeing your progress.11

Table of Contents16

(This should list the main chapters and (sub)sections of your report. and section titles and use double spacing for clarity. If possible you should include page numbers indicating where each chapter/section begins. Try to avoid too many levels of subheading - three is sufficient. You can add additional chapters according to your project)11

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CD containing Project and Source Code

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Illustration of Abbreviations and Symbols16

LPC: Low pressure compressor (Booster tip)

HPC: High pressure compressor (Booster hub)

LPT: Low pressure turbine

HPT: High pressure turbine

VABI: Variable-area bypass injectors

GUI: Graphic user interface

Introduction16

This is one of the most important components of the report. It should begin with a clear statement of what the project is about so that the nature and scope of the project can be understood by a lay reader. It should summarize everything you set out to achieve, provide a clear summary of the project's background, relevance and main contributions. The introduction should set the context for the project and should provide the reader with a summary of the key things to look out for in the remainder of the report. When detailing the contributions it is helpful to provide pointers to the section(s) of the report that provide the relevant technical details. The introduction itself should be largely non-technical. It is useful to state the main objectives of the project as part of the introduction. However, avoid the temptation to list low-level objectives one after another in the introduction and then later, in the evaluation section (see below), say reference to like "All the objectives of the project have been met...".11

Chapter 2

Background16

The background section of the report should set the project into context and give the proposed layout for achieving the project goals. The background section can be included as part of the introduction but is usually better as a separate chapter, especially if the project involved significant amount of ground work. When referring to other pieces of work, cite the sources where they are referred to or used, rather than just listing them at the end.11

Chapter 3

Requirement Analysis and Specification16

Requirements Analysis is the process of understanding the user needs and expectations from a proposed system or application and is a well-defined stage in the software Development Life cycle model. Requirements are a description of how a system should behave or a description of system properties or attributes. It can alternatively be a statement of ‘what’ an application is expected to do. The Software Requirement Analysis Process covers the complex task of eliciting and documenting the requirements of all these users, modeling and analyzing these requirements and documenting them as a basis for system design.11

Chapter 4

Systems design16

Systems designis the process or art of defining the architecture, components, modules, interfaces, and data for a system to satisfy specified requirements. One could see it as the application of systems theory to product development. There is some overlap and synergy with the disciplines of systems analysis, systems architecture and systems engineering.

1. Data Flow Diagrams14

Data flow diagram will act as a graphical representation of the system in terms of interaction between the system, external entities, and process and how data stored in certain location.

* External entities
* Data stores
* Process
* Data Flow

Know thyself

4.2 Unified Modeling Language14

The Unified Modeling Language allows the software engineer to express an analysis model using the modeling notation that is governed by a set of syntactic semantic and pragmatic rules. A UML system is represented using five different views that describe the system from distinctly different perspective. Each view is defined by a set of diagram, which is as follows.

* User Model View
* Structural Model View
* Behavioral Model View
* Implementation Model View
* Environmental Model View

4.3 Entity Relationship Diagram14

An entity relationship diagram (ERD) is a representation of data within a domain. It consists of entities as well as relationships between entities. An entity can be a tangible, physical object such as a school or student, or a concept such as a reply or a transaction. Entity can be identified by extracting objects that are relevant and meaningful to the problem domain and the system to develop. In entity relationship modeling, the term entity has synonyms "table", "database table", "entity-type". Yet, entity is the most commonly used term. Each entity brings along a set of columns, which are the properties of the entity the attributes belong to. For instance, entity Student has name, address and grade as columns (synonyms: attributes, properties, fields). Every entity must have at least one attribute that can be used to uniquely identify the entity, which is known as the entity's primary key(s). Relationships are capable in linking up entities. Typical examples: one-to-one, one-to-many, many-to-many. The proper use of relationship is important in showing HOW entities are related. For instance, one-to-many relationship must be used for modeling the fact that 'one school has many students'. 11

Chapter 5

Project Implementation & Testing16

After designing the new system, the whole system is required to be converted into computer understanding language. Coding the new system into computer programming language does this. It is an important stage where the defined procedures are transformed into control specifications into computer instructions, which we refer as programs. The programs coordinate the data movements and control the entire process in a system. After having the user acceptance of the new system developed, the implementation phase begins. Implementation is the stage of a project during which theory is turned into practice. During this phase, all the programs of the system are loaded onto the user’s computer. 11

Software testing is an investigation conducted to provide stakeholders with information about the quality of the product or service under test several testing types are available:

* Unit testing
* Module testing
* User acceptance testing

Chapter 6

Maintenance16

Maintenance is necessary to eliminate errors in the system during its working life and to tune the system to any variation in its working environment. It has been seen that there are always some errors found in the system that must be noted and corrected.. Another part of maintenance was to study the performance of the system. A system becomes more popular due to better performance. 11

Chapter 7

Conclusions and Future Work16

The project's conclusions should list the things which have been learnt as a result of the work you have done. It is common to finish the report by listing ways in which the project can be taken further. This might, for example, be a plan for doing the project better if you had a chance to do it again, turning the project deliverables into a more polished end product.

References16

This consists of a list of all the books, articles, manuals etc. used in the project and referred to in the report. You should provide enough information to allow the reader to find the source. In the case of a text book you should quote the name of the publisher as well as the author(s). Use same bibliographic standard for all the references.

Appendix16

The appendices contain information which is peripheral to the main body of the report. Information typically included are things like parts of the code, tables, test cases or any other material which would break up the theme of the text if it appeared in situ. You should try to bind all your material in a single volume and create the black book.