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College of Computing

Computer Science Department

CS3141 Team Software Project

Spring 2022

**Project Title**

Section: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Team #: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Instructor:

Serein AL-Ratrout

# **Abstract**

(***Abstract*** *is one-paragraph summarizes your project, describes the content and scope of the project objective, methodology, findings, and conclusion. So, you need to write one-paragraph that gives an abstract idea about the entire project, the aim of the project, the process model you used, the tools, what you have done, the results, and your conclusion. If you think the project is worth extending to a Final Year Project (FYP) by you or other students or can be adopted and extended by industry/market, then mention that here and add it also as future work.)*

Example of abstract

In this project a student registration web application for university students and staff was developed, the aim of this application is to provide a simple set-up of programs for student enrolment, improve efficiencies and eliminate unnecessary paperwork. The system mainly has two modules: students and staffs. Students can create account then sign in/out, add, update, delete, and modify their data and schedule. Staff can also create account and then sign in, add, update, delete, and modify their data. Waterfall process model followed during project development and the implementation was realized by use of object-oriented PHP, HTML, MYSQL and Dreamweaver technologies.

It has been found that the final system was simple and user friendly with easy user interface, hence the end-users do not need to undergo extensive training or require any special skills. It was also secure, and reliable.

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Chapter1

Specification

# **1.1** **Introduction**

(Write an introduction includes an overview of the concepts, terms and issues involved with your project, describe the purpose motivation for your project.

It should include:

• Overview of topic

• Description of project.

• Describe the solution you plan to explore

• The important of the project

• Expected result)

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# **1.2 Problem Statement**

(A proposal should address three primary questions in relation to the project objective: *What, Why, and How*. This section should describe ***What*** and ***Why*** of your project.

Projects are usually targeted to solve existing problems or issues, here you need to identify the problems or explain the current problem or issue, write a description of existing situation/case where the problem occurs and what impacts it has on users, and why it’s a problem in the first place. Provide a reason why the problem needs to be understood, outline the negative points of the current situation, and explain why these matters.  At the end of the project, this section is revisited to confirm the implemented solution indeed solves the problem).

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# **1.3 Aim and Objectives**

# **(Aim** is the purpose of a project, the broad goals that you hope to conquer, it is a statement of overall intention written in general term, what you hope to achieve at the end of the project.

# **Objectives** are the actions you will take in order to achieve the aim, steps that are taking by an individual or a group of people that lead to the completion of the goal and particular aim and the desired outcome.

Example of aim and objectives

Aim:

The aim of this project is to develop a web application to manage information for Student registration System (SRS) and create an automated solution to all activities take place online, which in turn saves a lot of paper and other useful resources. It also stores all the information on Cloud, once users enter information, they are synchronized across all the modules and hence no need to do manual data entry repeatedly.

Objectives:

* To allow students to register online ….
* To display student detail….
* To make reports of students …
* To assign department for fresh students
* To enable students to view their grade
* to minimize loose of data.
* To improve planning and management.

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# **1.4 Stakeholders**

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# **1.5** Methodology

# (Describe the software process your team follows, the method used along the project activities. In other words, describe the flow of activities from the beginning until the end and we need to thoroughly explain the involved steps in the activities, add model/diagram for your software process)

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# **1.6 Tools**

(Mention the Software and/or hardware you will need to develop your project)

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# **1.7 High-Level Business Requirements**

## **Functional Requirements**

(The services the proposed system should provide)

## **Non-functional requirements**

(The constraints)

# **1.8 Product backlog**

(List of Prioritized user requirements written in user story format.)

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**You can use the following table:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Priority** | **User Story** | **Tasks** | **Estimated effort** | **Sprint** |
| 2 | **As a Customer, I want to withdraw cash from an ATM, So that I don't have to wait in line at the Bank** | **Design and implement the interface** | **1 H** | **1** |
| **Check the balance** | **1.5 H** |
| **Update the balance** | **5 H** |
| **1** | **As a Customer, I want to log in to my account using a card and PIN code So that I can perform the transactions** | **Design and implement interface** | **1 H** | **1** |
| **Read the card and validate it** | **2 H** |
| **Read PIN and validate** | **1 H** |
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Chapter 2

Analysis and Design

Chapter 3

Implementation

The following [report](http://people.uncw.edu/simmondsd/documents/450_Implementation%20and%20Testing%20Report.pdf) is a good example that you can follow for implementation please refer to pages 25 - 30, and here is another [example](http://api.uofk.edu:8080/api/core/bitstreams/13308397-e07c-47ef-83e5-3bbb2e9f0a81/content) for your reference.

Chapter 4

## Validation

**For Chapter 4 (Validation)**: here you need to write about the process of checking that your software system meets specifications and requirements so that it fulfils its intended purpose, and to confirm or to prove the accuracy of your project.

Write about your testing and validation; **level of testing** you had, unit testing, integration testing, validation testing and acceptance testing.   Did you have **manual or automated** testing or both? specify the part(s) that have automated testing and part(s) that have manual testing, and **What is your oracle?**

**Write the** **test cases** for valid and invalid **input** (please see Week3 Automated Testing/ slide 11),

then confirm that no errors in the code and the application is able to operate in required condition (OS, web browsers) and you have created the code correctly.

For validation and acceptance testing write who tested your system? MTU students? computer science student? other department students? your group only? other college students? public users? How many students/users? How many times? could they use it easily or did they make mistakes?

Chapter 5

## Limitations and Future Work

**For Chapter 5**

Limitations: address everything that the project left,  if some project backlog items/ features/ requirements have not been implemented then mention them in this part with an explanation/justification why you couldn't implement them (Time constraints the time was not enough, some developers were unavailable, because of COVID19, or  tool limitation ....etc.). Many students tend to feel that presenting the limits of their work makes work weaker. on the contrary, approaching this section shows maturity for the academic universe, and writing about them actually strengthens your work by identifying any problems before reviewers/readers find them.

Future work : if the limitations can be addressed in the future then add this in here in future work, moreover, if you believe this project can be extendable (add more features/ more parts) that the project is worth extending to a Final Year Project (FYP) by you or other students or can be adopted and extended by industry as a product so you can give directions for that in future work.

Chapter 6

Conclusion

**For  Chapter 6 (Conclusion),**: write what you have concluded.

Examples:

I solved many problems in the project…

This application/project/system was applied to improve the learning process.

The results of this project showed that system significantly facilitated the students' learning process.

The system is useless, acceptable, usable, beneficial or maybe enjoyable and why do you believe that.

References

(Include any references to external documents or materials (for example, tutorials the team will be using, literature , web references or links to documentation of third-party tools you will use) here.

The references should be properly numbered and correctly used in the text.

The Reference section should be in the following fashion:

# References

Journal, Magazine/ Newspaper Article

|  |  |
| --- | --- |
| [1] | Author, "Title," *Journal name,* p. pages, year.  Book |
| [2] | Author, Book Title, publisher, year.  Internet Web page: |
| [3] | Author, "Name of the Web Page," [Online]. Available: URL. [Accessed Date]. |