Software Proposal Document for ....

Team Leader name, Second Name, Third Name, Fourth Name, Fifth Name
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Table 1: Document version history

Proposal Version	Date	Reason for Change
1.0	25-Feb-2023	Proposal First version's specifications are defined
1.1	28-Feb-2023	System description updated

GitHub: .....

Abstract

The abstract should be concise and compelling, providing a compelling summary that encourages the reader to continue reading the full proposal document. It should briefly overview the proposed software project, including its purpose, scope, and critical features. It should give the reader a clear understanding of the project's objectives and benefits and any unique aspects that set it apart from similar software solutions. The abstract should also include information about the software's target audience or user group and any relevant market or industry trends that make the project particularly timely. In addition, the abstract may summarize key technical details such as the software's architecture, programming language, development methodology, and testing procedures. It may also mention any significant risks or challenges associated with the project and the strategies proposed to mitigate them.

To write a good abstract you can follow this guideline:

- Introduction. In one sentence, what's the topic? Phrase it in a way that your reader will understand the context.
- In one sentence, State the problem you tackle. What's the key project challenge?
- Explain, in one or two sentences, how you plan to solve this problem.
- In one sentence, State the development process you intend to apply.
- In one sentence, what's the key expected outcome of your project? (The proposed solution is a web application that will .....)

(Word Limit 200). PS. the abstract is the last thing you write in the document.

1 Introduction

(The following is a sample guideline for MIU SE305 and CSC341 project proposal.)

1.1 Background

Please describe the big domain (context) for your problem then focus on some area inside this domain that match your interest. Use references to show your understanding of the topic and to give supporting evidence for your ideas. For example for work related to Interior Design Management software you may reference [1]. (Word Limit 200)

1.2 Problem Statement

Problem statements lead the reader from a shared context to the perception of a problem, and on to a proposed solution. Three key points to get from this section are:

- Context — Establish a context for your audience
- Problem — Define the problem within this context
- Solution — Propose a solution to this problem

Example:
(problem and its context)
A recent trend in the design of new aircraft is the addition of winglets, which are small fins attached to the ends of the main wing. After an aircraft has taken off and is cruising, winglets improve its performance by reducing the drag caused by the main wing. However, during the critical stages of aircraft takeoff and landing, the winglets cause two problems. First, they cause vibrations in the main wing, commonly called buffeting. Second, they cause the aircraft to lose some control of yaw, the motion of the nose right and left. In a study funded by NASA, the main wing of a DC-10 transport aircraft was outfitted with winglets, and it experienced significant buffeting during takeoff and landing.
(approach of the current research)
In our current project, we examine winglet-induced buffeting in three wing designs. We record buffeting and yaw under experimental wind-tunnel takeoff and landing conditions for (1) a wing without winglets, (2) another wing with conventional winglets, and (3) a wing with spheroid winglets. Our objective is to determine the degree to which differences between load lifts on the wings and their winglets during takeoff and landing are causing the performance problems we have described.

(scope of the proposed solution) In this study, we develop theoretical models of winglet load lifts and compare these to the lifts of wings and winglets actually recorded during testing conditions.

1.3 Motivation

Discuss the business needs for your project.
For this section consider answering the following questions:

1. Why is this problem interesting?
2. When and why does the problem occur?
3. What is the most current/successful solutions available now?
4. What are the possible improvements to current solutions?

2 Project Description

Give a brief overview of your proposed project then list the initial requirements. A good requirement states something that is **necessary**, **verifiable**, and **attainable**. Even if it is verifiable and attainable if it is not necessary, it is not a good requirement [2–4].
Use a figure such as in figure 1 to show the proposed system.

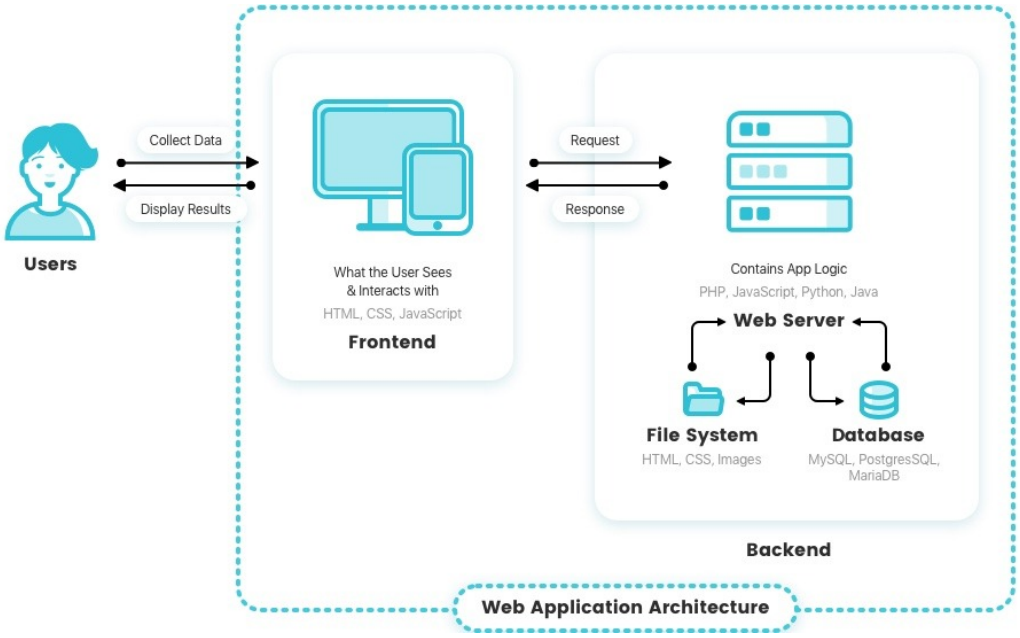

Figure 1: web application architecture

2.1 Objectives

Write as a minimum three statements that describe the "what" of your project.
The concrete and measurable "what".
Aim to use the specific, measurable, assignable, realistic, and time-related (SMART) method for writing effective Objectives. Examples of good Objectives:

- To reduce the number of clicks it takes for a user to reach the highest traffic page that the majority of our website users regularly visit (the member directory) from any point on the site to 2 clicks or less by the end of our design phase on June 1st.
- To write the SRS document to meet with IEEE 830-1998 standard. SRS document will be delivered by April 2021.

2.2 Stakeholder

2.2.1 Internal

State who is the team leader. list all team members with their responsibilities

2.2.2 External

State who are the End Users and clients

3 Similar System

3.1 Academic

List down at least 1 paper from ACM or IEEE for similar work experience in the domain of your problem. Be sure that each paper you list include the following points

1. The main problem statement of the work.
2. How the researchers contributed to solve the problem
3. The dataset used by the researchers
4. What main results the researchers reach.
5. Criticize the paper
6. Figure/s of the work (if available)

3.2 Business Applications

Describe available business applications in the market with figures.

4 Project Management and Deliverables

4.1 Deliverables

- What will the project produce? (program, reports, etc.)
- Describe in brief detail the features of each deliverable.

4.2 Tasks and Time Plan

Use Trello to create a time plan showing tasks and which team member is assigned to it of your project.

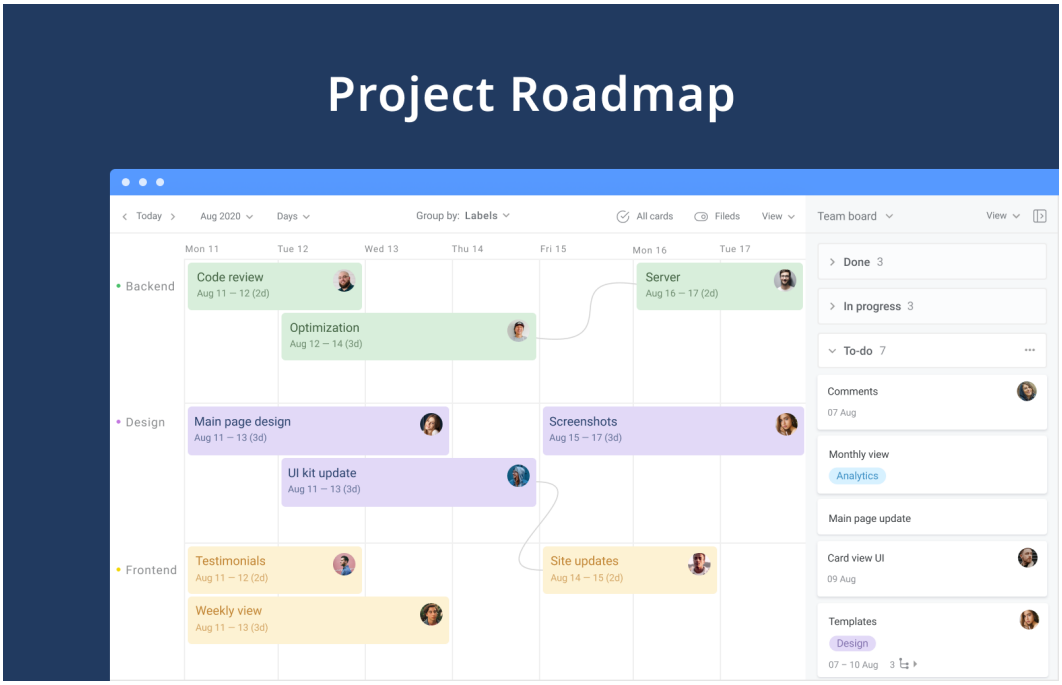

Figure 2: Project time plan

References

[1] Yujie Shu. “Application of Computer Aided Design Software in Interior Design”. In: *Journal of Physics: Conference Series*. Vol. 1992. 2. IOP Publishing. 2021, p. 022035.

[2] Ivy Hooks. “Writing good requirements”. In: *INCOSE International Symposium*. Vol. 4. 1. Wiley Online Library. 1994, pp. 1247–1253.

[3] IEEE Computer Society. Software Engineering Standards Committee and IEEE-SA Standards Board. *Ieee recommended practice for software requirements specifications*. Vol. 830. 1998. IEEE, 1998.

[4] Eric Knauss and Christian El Boustani. “Assessing the quality of software requirements specifications”. In: *2008 16th IEEE International Requirements Engineering Conference*. IEEE. 2008, pp. 341–342.