**Project Plan**

***<<PROJECT NAME>>***

*<<Customer>>*

<<

*This template can be used for all projects, especially software engineering projects. Chapters or parts that are not applicable can be removed.*

*Text in italic is background information and must be removed in the final version of your project plan.*

*Note that this is a template and can be changed for own purposes, e.g. you can adapt the layout to the layouts as used at the company of your internship.*

*For your project name, think of a name that highlights the most relevant aspect of your project, and specify whether it is about graduation internship or third year internship.*

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| **Date : 18 March 24** |
| **Version : 0.1** |
| **State : In progress** |
| **Author : Tony** |

#### Version history

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| 0.1 | 18 March 24 | Tony Jiang | Initialize document | In progress |
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**Distribution**

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# Project assignment

## Context

My individual project is a music trivia web-based game that tests players' knowledge across various genres and time periods. To win, players must select the correct answer quickly to accumulate points. At the end of each round, the player with the highest score emerges victorious. Participants have one minute to identify either the song title or the artist, depending on the game mode, after listening to a 10-second sample. The game offers the option to play solo, with friends, or against random opponents in multiplayer mode.

## Goal of the project

The goal of this project is to scale the web-based game to handle around ten thousand users without experiencing any downtime or encountering any performance issues, both during the game session and creating the session, regardless of whether traffic is low or high traffic. Additionally, I aim to ensure website security, protect users' information, and eliminate cheating. Last but not least, I aim to create a fun gaming experience for the players to enjoy.

## Scope and preconditions

*<<What activities and which end products (to what extent or quality) belong to the project, and which don’t.>>*

|  |  |
| --- | --- |
| **Inside scope:** | **Outside scope:** |
| 1. User story. |  |
| 1. C4 architecture. |  |
| 1. Wireframe. |  |
| 1. Test plan. |  |
| 1. Research document. |  |
| 1. Scale the web application around ten thousand users. |  |
| 1. Experience minimal low performance issues on the web app. |  |
| 1. Implement authentication and authorization. 2. Implement CI/CD pipeline |  |

## Strategy

For this project, I'm adopting a Scrum approach combined with DevOps. With Scrum, I can demonstrate the progression of the project during each sprint iteration, gather feedback, and continuously improve. Additionally, I will integrate continuous integration for automated testing and continuous deployment for automated deployment practices during each sprint. This process will enable faster, more efficient, and reliable software development.

## End products

A diagram of a program

Description automatically generated

# Activities and time plan

## Phases of the project

*<< Describe the main phases of your project. Even in a scrum project, you should specify at least the components at the beginning and end phases like problem analysis in the beginning, as well as handover, evaluation, reflection, and wrap up at the end.*

*For internship projects, reserve sufficient time for developing/maintaining the portfolio/thesis.*

*>>.*

The phases of the project are in sprints. Each sprint I have to deliver and present the product to my technical teachers. Each sprint takes 3 working weeks before the end of the internship. The whole project should be finished in 5 sprints. Below it is possible to see the supposed milestones and correlating activities for the project.

* Sprint 1: Initial planning and defining - Initial planning of the project and defining the structure of the project.
* Sprint 2: Setup environment and initial implementation - setup the environment of the project after defining the structure as planned and start implementing.
* Sprint 3: improve and continue implement – improve on the feedback from sprint 2 and continue to implement.
* Sprint 4: improve and continue implement – improve on the feedback from sprint 3 and continue to implement
* Sprint 5: finish the project – Finish with everything for the project.

## Time plan and milestones

*<< For a waterfall project you can indicate the phases and milestones below (can be adapted as required).*

*For an agile project, describe how the artefacts are planned. E.g., length of sprint (with justification), organization of stand up, demo, retrospective.*

*>>*

|  |  |  |
| --- | --- | --- |
| **Phasing** | **Start date** | **Finish date** |
| 1. Initial planning and defining | 4 March 24 | 22 March 24 |
| 1. Setup environment and initial implementation | 25 March 24 | 12 April 24 |
| 1. improve and continue implement | 15 April 24 | 8 May 24 |
| 1. improve and continue implement | 13 May 24 | 31 May 24 |
| 1. finish the project | 3 Jun 24 | 21 Jun 24 |