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**Document History**

| Version | When | Who | What |
| --- | --- | --- | --- |
| 1.0.0 | 2/3/25 | Shruti,  Pratik,  Dristanta,  Kushal,  Sikha,  Prabesh, and  Pramil | Initial Drafting |

**Table of Contents**

1.0 Problem Description

2.0 Project Objective

3.0 Current Systems

4.0 Intended Users and Their Interaction with The System

5.0 Known Interaction with other systems inside/outside the Client Organization

6.0 Known Constraint to Development

7.0 Project Schedule

8.0 Glossary of Terms

**1.0 Project Description**

This project aims to create a fun and exciting 2D combat-adventure game. Players will fight battles and explore the game world to find randomly placed collectibles. Some collectibles will give them power-ups or extra energy, while others will lower their health or make them weaker.

Players can choose from eight different characters, each with their special abilities. The game is a set-based-game (best of three sets) so will have different scenes on each set. But, at first , the scene can be chosen by the player. Additionally, there will be four levels: Easy, Medium, Hard, and BC mode. The mix of fighting and adventure makes the game more interesting and different every time you play.

We believe this game has strong market potential because similar action-adventure games have been very popular. The game named Legends of Warriors, proposed by our gaming company Everest Elites, will stand out by combining combat, exploration, and strategic features management, making it both exciting and replayable.

**2.0 Project Objective**

Everest Elites wants to create a modern single-player 2D combat-adventure game which is a combination of combat and adventure games such as Shadow Fight 2 and Mini Militia. Our team is focusing on improving the game with creativity to make it more fun and addictive to play so that users will engage frequently. The game should include the following features:

1. A simple combat system where players fight one-on-one, and the winner moves from the best of three sets to the next round.
2. A collectibles-laid system where players can find items that help or hurt them.
3. A system to track time, player progress, special-ability cooldown, and health bar.
4. A user-friendly interface that is clear and easy to understand.
5. Multiple levels with different battle scenes and increasing difficulty (at least 3 levels).
6. Characters with special powers.
7. Availability of medicines and energy drinks to keep the players energetic.
8. Screens for game over, game paused, and gameplay.
9. Smooth gameplay with no glitches.

**3.0 Similar Systems**

As several games in the market share similarities in terms of game features, our key inspirations for this project are:

[Shadow Fight 2](https://en.wikipedia.org/wiki/Shadow_Fight_2)

A role-playing 2D fighting game developed by Nekki and Banzai Games which has a mixture of RPG elements with classic fighting mechanisms. With its fluid animations, tactical moves, and deep story mode, the game hosts a special place in the game market. Shadow Fight 2 adds an animated scene that shows the tragic story of the protagonist, Shadow. Shadow was a fearless warrior who stumbled upon a portal of a different dimension. To come out of that realm, he has to defeat all the demons who guard the ancient Seals so that he can close the gates once and for all.

[Mini Militia](https://en.wikipedia.org/wiki/Mini_Militia)

Another 2D multiplayer shooter game that is on a fast-paced battlefield where players with flying mode battle for survival. Since equipped with jetpacks, players can defend, doge, navigate different caves, and attack each other. Whether playing with A.I. opponents or real players, moments of surprise always make this game addicted to play.

**4.0 Intended Users and Their Interaction with The System**

The game is designed for players who enjoy action combat and adventure games. Users will interact with the game in the following ways:

* **Casual and Competitive Players** – Players looking for a fun way to pass time or challenge themselves to reach the highest score.
* **Keyboard or Controller Input** – Players will control their characters using simple and intuitive controls.
* **Exploration and Survival** – Players will navigate different battlefields, collect power-ups, and avoid harmful items to stay in the game.
* **Winning Battles to Progress** – The game follows a structured combat system where players must defeat opponents to advance.

**5.0 Known Interaction with other systems inside/outside the Client Organization**

The game has the following interaction for the development and operation to ensure smooth gameplay in cross-platform:

**Internal Interactions**

1. **Game Engine**: For the sake of this project, we’ll be using Unity so that it has high performance and easy cross-platform deployment.
2. **Asset Management & Version Control:** A version control Git, GitHub, and GitHub Desktop will be used for code and asset tracking so that collaborative work won’t get messed up.

**External Interactions**

1. **Cross-Platform Compatibility:** Since the goal is to host the game on Windows/MacOS and Android, it will require optimization and compliance with their guidelines.
2. **Legal & Compliance Regulations:** Since the game is based on inspirations and uses publicly available assets, we must comply with GDPR, COPPA, platform specifics policies, and copyright permissions for all the others’ work.

**6.0 Known Constraint to Development**

1. **Code Complexity:** Since the team consists of members with different skills, it will be difficult to work with each other for a while. Also, adding features like AI-driven mechanics, physics-based combat, etc requires coding, debugging, testing, and optimizing.
2. **Hardware & Software Limitations:** This limitation can be seen in both the parties: the creator and the user. The creator also can have a low-end machine which would make it challenging to create the game. On the other hand, the creator(we) should also think of running the game smoothly on low-end and high-end devices without huge performance differences along with support for different versions (PC, MacOS, and Android).
3. **Development Costs:** Since the game assets, licenses, and other platform fees come into account, we need to figure out the cost approximation for the project.
4. **Maintenance Costs:** Fixing bugs, continuous server upkeep, security patches, and other feature updates come attached with the expenses which also need to be catered properly.
5. **Marketing:** We need to advertise our product, make influencer promotions, and community engagement to lure and retain players.
6. **Time Constraint:** Since the deadline for the project is set in December, time is a crucial ingredient. The development has different parts like coding, testing, debugging, optimizing, and iterating. And, almost all those parts take unpredictable time, time management should be carefully done.

**7.0 Project Schedule**

| Date | Duration | Objective | Remarks |
| --- | --- | --- | --- |
| 2/3 | 1 hr | Divide the group into sections for task completion | All members |
| 2/7 | 4 hrs | Prepare and submit RFP | All members |
| 2/8 | 6 hrs | Champion Document | Individual |
| 2/8 |  | Storyboard, Class Diagram | All members |
| 2/11 | 25 mins | SA Presentation | All members (in class) |
| 2/14 |  | Minimum Viable Product | Pratik & Dristanta |
| 2/15 |  | Feature addition | All |
| 3/20 | 1 hr | Initial test plan | All |
| 4/13- 4/18 | 1 hr | Oral Exam Week | All |
| 5/1 | 1 hr | Final Presentation | All members |

**8.0 Glossary of Terms**

Terms that are meaningful to the client group but might not be understood by outside of our group -

* **User Interface (UI)** – The visual elements of the game that help players interact with it, such as menus, health bars, and score displays.
* **Git Repository** – A version control system where we store and manage code files, making collaboration and updates easier. Repositories can be public or private.
* **Code Outline** – A basic structure of code that outlines the game's fundamental features without full implementation.