

## GAME DEVELOPMENT PROJECT – SPARTA

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**Abstract** - Sparta is a desktop-based game which consists of a battle game. This promotes tactical skills within the players since they need to apply strategies to defeat the enemy in order to win the game. Since there are various methods to build a game such as First Person Shooter and Third Person Shooter. Basically, Sparta is a Third-Person Shooter game. The First-person shooter refers to the view where the players see the world from the eyes of their characters. Shooter refers to games which revolve killing other entities in the game world, (either non-player characters or other players) enemies. Third-person shooter is where instead of seeing the game through the main character's eyes; you see the main character of the game. Where he is moving and shooting in the game which in short means the player character is visible on-screen and the game is specifically focused on shooting. Basically, Sparta is been developed using the C# language which consists of scripting for development. The designing of Player and Enemy models are been designed using Adobe Photoshop. In our game, we also have used the concept of Artificial Intelligence. The main aim of the AI is that on the player's movement the Enemy gives a response. The whole concept of AI is been focused on our enemy i.e. if the player attacks the enemy also attacks in response to it etc. The overall development of the game is been done using the UNITY Engine.

**Keywords:** SPARTA, TPV game, Game development project.

### 1. INTRODUCTION

#### 1.1 Background

The background is a set of events invented for a plot, presented as preceding and leading up to that plot. In our game, it's a single player strategy game emphasizing logical thinking and planning. As usual in a game tactical organization and execution are necessary, and as probably the game creators usually place the decision-making skills and delivery of commands in the player's hand.

#### 1.2 About the Project

Our game Sparta is a single player arcade game which runs on windows platform. The main character of the game is the player itself which plays an important role who fights with the enemy (boss) to get his victory. In our game we have given some features to the player where he can salute on pressing a key, also the player can express his victory, also added some additional modes to the player such as charge

mood, normal mode etc. The player can roam throughout the game environment (at a particular range only), to find and kill an enemy to get his victory.

As the game is a kind of boss-fight based game in which there will be a battle between the player and the enemy.

#### 1.3 The Scope of Our Game

The purpose of the game is to provide a refreshment mood to the person while playing our game "SPARTA". Whereas our game is played as an offline game, which encourages users to sit relax and enjoy playing. We demonstrate the action flow between inputs, scripts, and display view. We worked mainly to remove the drawbacks of the others highly rated games like God Of War and Troy. Drawbacks such as, Troy is an online game which requires internet connection whereas our game doesn't require an internet connection. A basic comparison of an existing system and proposed system:

Table1- Comparison of an existing system and a proposed system.

Existing System	Proposed System
<b>God Of War</b>	<b>Sparta</b>
i) Play Station 2 (PS2) video game console.	i) Desktop-based game.
ii) A Complete adventure game without any levels.	ii) Battlefield game.
iii) Complete story mode.	iii) No Story Mode.
<b>Troy</b>	
i) Troy is an online pc game with no offline mode.	i) Only offline mode.
ii) Needs at least 2 players to play the game.	ii) Needs only one player to play the game.

## 2. Proposed System

Our game Sparta is a single player game where the main character of the game is the player itself which plays an important role who fights with the enemy (boss) to get a victory. The main strategy of our game is that as the game starts there will be darkness everywhere in the game so first, the player has to find the lighthouse to light the lamp placed in the house, the next strategy is to find the enemy and make war with the enemy using his sword and kill the enemy to get the win. The player attacks using his sword where the enemy attacks by throwing fire through his mouth on the player due to this the player's health get reduce, so a player has to defeat from fire flame and attack on an enemy. And as soon as the enemy dies the game ends with a high score.

### 2.1 Project Design Term

For every enterprise project, two key terms of design are very important. They are:

- User Experience (UX)
- Backend Programming

#### 2.1.1 User Experience (UX)

UX defines user experience as "a person's perceptions and responses that result from the use or anticipated use of product, system or service"

To avoid unnecessary product features, simplifying design documentation and the customer-facing technical public at incorporating business and marketing goals UX design is a must.

#### 2.1.2 Backend Programming

The "backend" is the code supporting that front end. In simple term application, the front end is that what you see (i.e. the user interface) and application backend is the application engine that you do not see. The "backend" is the code supporting that front end (responsible for database access).

For efficient implementation, to increase user acceptance both are very important in software.

## 2.2 System Implementation Features

### 2.2.1 Third Person View

Third-person view shooter is where instead of seeing the game through the main character's eyes; you see the main character of the game. Where he is moving and shooting in the game which in short means the player character is visible on-screen. And the game is specifically focused on shooting.

### 2.2.2 Free Roam

The player can freely roam throughout the game environment, to find the enemy and kill the enemy to get his victory.

### 2.2.3 Battle (Attack, Defense)

In the battlefield, the player attacks use a sword and do defense action using a shield.

### 2.2.4 To Salute

The player salutation is nothing but just as a feature of taunt to show enemy.

### 2.2.5 To Celebrate

After killing the Enemy, the player celebrates his victory where a kind of victory music gets played.

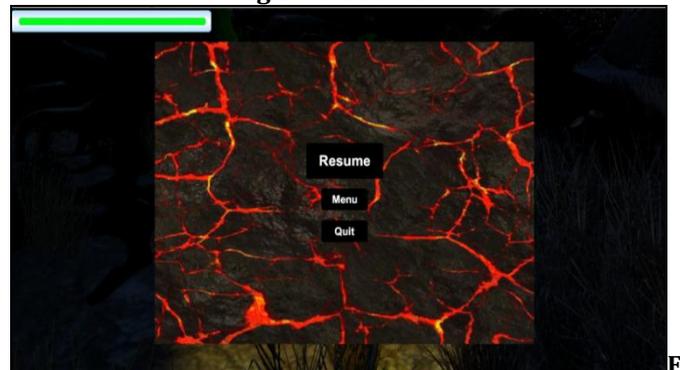
### 2.2.6 Option Menu

The options menu is accessible from the title screen and allows the player to configure controls and graphical settings to suit his/her convenience. Which includes sound volume for on/off, the sounds gets enabled when "on" and disabled when "off".

## 3. IMPLEMENTED SYSTEM



ig 1- Main Menu



ig 2- Resume Menu



ig 3- Enemy



ig 4- Player

#### 4. Advantages and Disadvantages

##### 4.1 Advantages

- 1) It helps to refresh one's mind.
- 2) It improves the Tactical skills within the players.
- 3) As it includes more and different features it allows the player to get relax and entertainment.
- 4) No need for an Internet connection while playing this Game.

##### 4.2 Disadvantages

- 1) It requires more space.
- 2) As playing for long hours it is harmful to Eyes, poor Postures, and stress on joints and back.
- 3) For running this game one should have a high-performance PC.

#### 5. FUTURE SCOPE

From this effort, we end that with the greater support team and financial support we can create a better graphical game an interactive game on a commercial level. And in future if possible we may try to develop for more different platforms i.e. Android which may help to enjoy playing a game at any time or place to get mind refresh. Also may try to expand the game with more different levels.

#### 6. CONCLUSION

Like our game, Sparta is a Battle (boss fight) based game, which consists of different bosses at different levels with all the technical skills. As our game includes more and different features it allows the players to get fun and Entertain. As the game includes different levels it helps the player to enjoy playing with a stress-free and get refreshing the mind. Our game does not need any internet connection to run. Our team wishes to carry on the project until its completion. The game will continue to grow until we feel it is satisfactory for open-source distribution.

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