PROJECT REPORT

OVERVIEW

The game under the title **“The Knight’s Duty”** comprises of sword fight with automated enemies,whose difficulty increases as we progress through the game.The file **“story-screen.html”** inside the **public folder** is the opening web page and the game progresses from there starting from the beginning of the story(skippable) followed by the confrontation between the knight and the enemy(unskippable).

Then the action begins and intensifies after every approaching level.If our hero loses the game,there is a proper display with messages and an option to either quit the window or go to main menu where we can start a new game.

The final stage of the game involves a boss with super-strength and if our knight is able to defeat him,the game is won...**THE END**....

HOW TO RUN THE CODE

For running the game,we just need to open the **public folder**,then open **story-screen.html** in any web browser.

The web browser opens and the game story begins.The story is skippable.That is followed by confrontation between the knight and the enemy,which is unskippable.

The game begins after that which then smoothy flows and we are redirected to the appropriate web pages on the corresponding game outcomes.

The keyboard keys are used for various functionalities of the knight.

They are as follows:-

**W**-JUMP

**A**-MOVE LEFT

**D**-MOVE RIGHT

**H**-ATTACK

FEATURES

1)The game involves animations and brings the alter-ego of 8 bit games that were prevalent earlier.

2)There are well-defined instructions with their functionalities given so that the gamer has no problems and enjoys the game with maximum attention.

3)The background music and the video makes the game intenisfied.

4) The health-bar is made by the use of css properties,thereby making it cleaner and visible.

5)The whole game involves many properties of html and css according to the needs.There has been very effective use of sprites and animations which makes the game appealing to the eyes.

6)Video and audio has been inculcated in html files to animate the story in the most realistic way possible.

CHALLENGES FACED & BUGS

1)The sprites available online were sometimes not suitable for the theme of our game,and even if they were there,most of the times it required purchases.Also,there were relatively less tutorial videos which were insightful and were in great depth.

2)The health bar of the player and the enemy had to be decreased everytime they get hit but there were many conditions that the hit will be successful,as in the health only decreases when they are near to each other and also they are facing against each other,so the perspective played an important role in it.

3)The enemy automation had to be very specific,eg:-the enemy had to run near to the knight to hit him and also the enemy had to switch his perspective if they were not facing each other,and automating that was a very difficult task.

4)Adjusting the frames so that the sprites are matching the actions in real-game time was also a difficult job and sometimes required if statements so that the animation is correct.

5)Most of the sprites available online contained only one perspective of the knight and the enemy,therefore we had to flip them most of the time so we could be able to use them as and when required.

6)There were difficulties in adjusting health bar,other game attributes to the game screen and it required additional care everytime while handling html files,so that the orientation and purpose of these do not lose its meaning.

7)The tags used to quit the window was working while opening file with any web browser.However,while opening the file through live server in VS code,the quit button was not working and it can be regarded as a bug of the system.

8)The background audio has been given correctly in all the files using the required tags and attributes.However,some systems support and some doesn’t.However,we decided to keep it as we had tested out in 3 devices,and it was working perfectly in 2 of those devices.

9)The canvas container’s size is relative,hence the dialogues during the game might appear after scrolling down and it can be regarded as a bug.Utmost care has been taken that this doesn’t happen but we cannot guarantee the contents will be fitting in the window screen or not.

FUTURE SCOPE

The game has a potential to be reaching across gamers all over the world with few tweaks for enhancing gameplay.The game could be a nice level-wise action-intensive game with rewards of better attack abilities for the gamers after each passing level.

The real-time responses to an attack by characters represents the first step that has been taken by us which would make the games more sensitive and much more appealing to gamers as it would be a replica of real-time phenomenon.These types of games are well received by the audience and has a chance of gaining popularity among them.

The game has a very high scope of improvement,where we can add more sprites enabling the characters to perform mutiple operations and also enhancing his attack methods and its damage caused in each advancing level.