VS GAME (VIRUS SURVIVOR)

MSC PROJECT

VIRUS SURVIVOR
2D Java Game

Project Aim:

- The design behind this game ‘VIRUS SURVIVOR’ is motivated by all-time favorite and popular videogames like "MARIO", "DANGEROUS DAVE" and "LOST".

- This game is 2D-Java oriented and is an entertainment project which has missions such that provide animation features for movements and eliminate virus-infected monsters, to reach the destination safely.

Hardware/Software Resources:

Functional requirements such as;

1. GUI libraries.
2. Java Programming concept and framework (IDEA NetBeans and/or Eclipse).
3. Graphics design (features like audio, animation, manage control/buttons).
4. Graphics card & RAM compatibility.

Project Objectives:

- The First objective is what requirements are suitable for the project. Requirements like Java Framework (NetBeans and Eclipse), software/hardware tools, GUI libraries, files are necessary to build game.
- The second objective is game presentation. It is a classic game so it contains background image, maps, assets to construct what game architecture will be.
- The third objective is implementation. Java Programming is easy to use for creating games. It has an advanced classes in GUI concept and derived options for commands to run the project.
- The fourth objective is In-Game Assets. GIMP 2.10 software is useful to draw sprites for character, enemy and many more.
- The fifth objective is animation and controls. Animation with controls can be done when character kills enemies by pressing buttons and defeat them. It can be done using Java programming with Key and mouse input events.

Sprites:

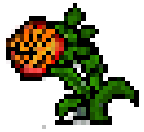
Character

Monster

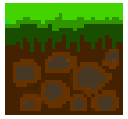
Enemy 1

Enemy 2

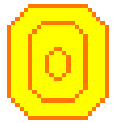
Plant



Wall

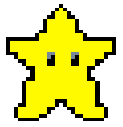


Coin



Health Upgrades

Superpower



Mystery Box

Game Infrastructure:

Implementation:

Event Handling
For mouse clicks and keyboard control.

Animations:
It included animations for instance walking animation, enemy walking animation etc. in game so that it looks more dynamic and attractive to the player.

Painting Graphics
I implemented the concept of method overriding to override the paint method to paint the graphics.

Loading Map:
Using GIMP 2.10 software, I created levels and set RGB value for each entity that holds sprites.

Main Method
I created a separate thread for the game by implementing the Runnable Interface. We started the thread in a separate **start()** method and called it within the **main()** method.

Summary:

- This design offers an exemplary presentation of Survive Covid-19, a resistance-based 2D PC game that needs to be aware of conscious wellness measures against Covid-19.

- The motive behind this design is to learn graphics concept specially in Java IDEA with special libraries like GUI (awt), provide animation in game, and realistic sprites that attracts players to play game.

- It is challenging for me to design such game that not only to play game but also educate individuals about the welfare measures they should follow during Covid-19 and encourage them to gradually protect their safety measures.