Java
Mini project

Topic : Multiuser Game Development using Java

1914019 –Anurag Ghosh &

1914034-Ishan Kulkarni

Problem Definition

Develop a One-some Snake Game that can be played by many players, the high-scores of each player is noted and stored in the database and then the scores of all the players can be viewed at the score table. The snake in the Game can be controlled by the Left, right, up and down keys.

Once the game ends there should be a back button prompting the user to go to the previous page to view scored, if no name is entered the program should ask the player to enter his/her name.
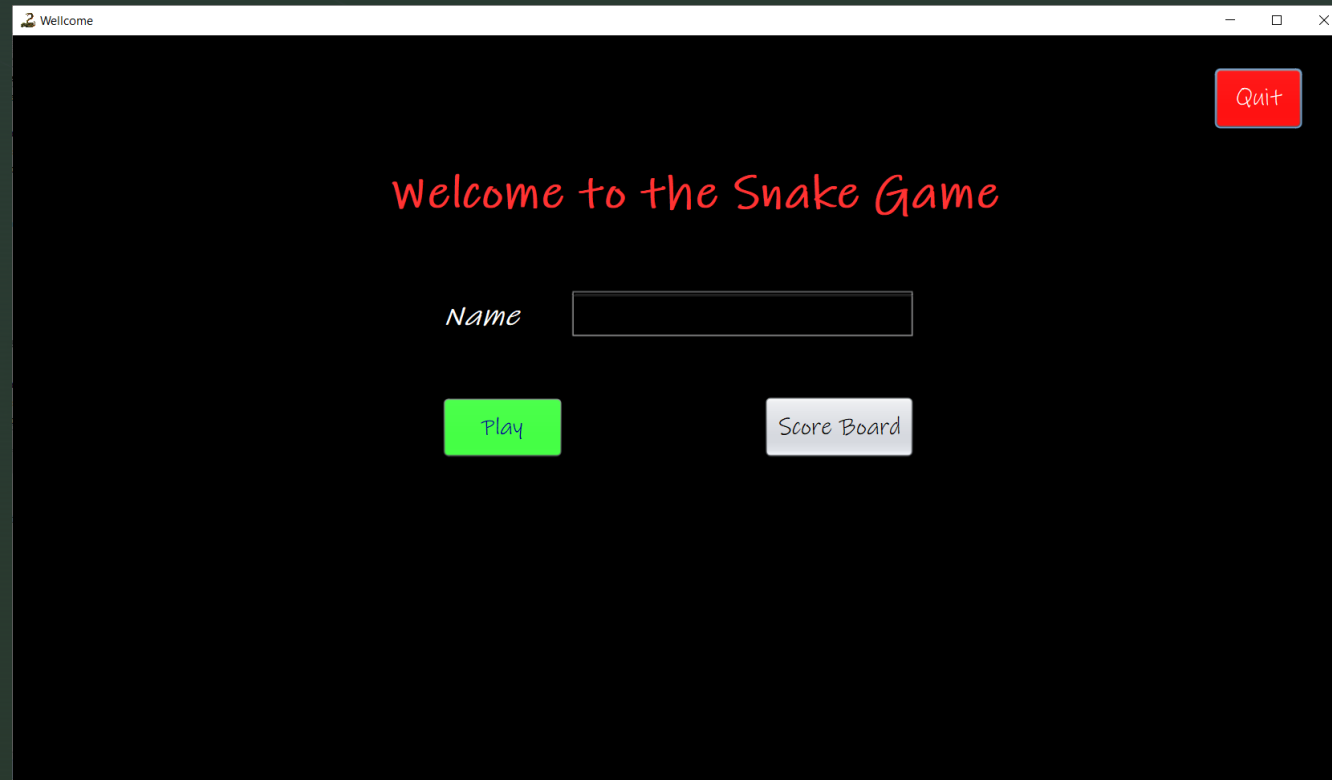
Resources Used

- Apache Netbeans 12.6 IDE.

- XAMPP Server

- MySQL

- JDBC jar

- Java JDK-14

- Icons/Images

User-Defined Classes Used

- Main()

- Home() -> Inherits JFrame

- Scoreboard() -> Inherits JFrame

- GameFrame() -> Inherits JFrame

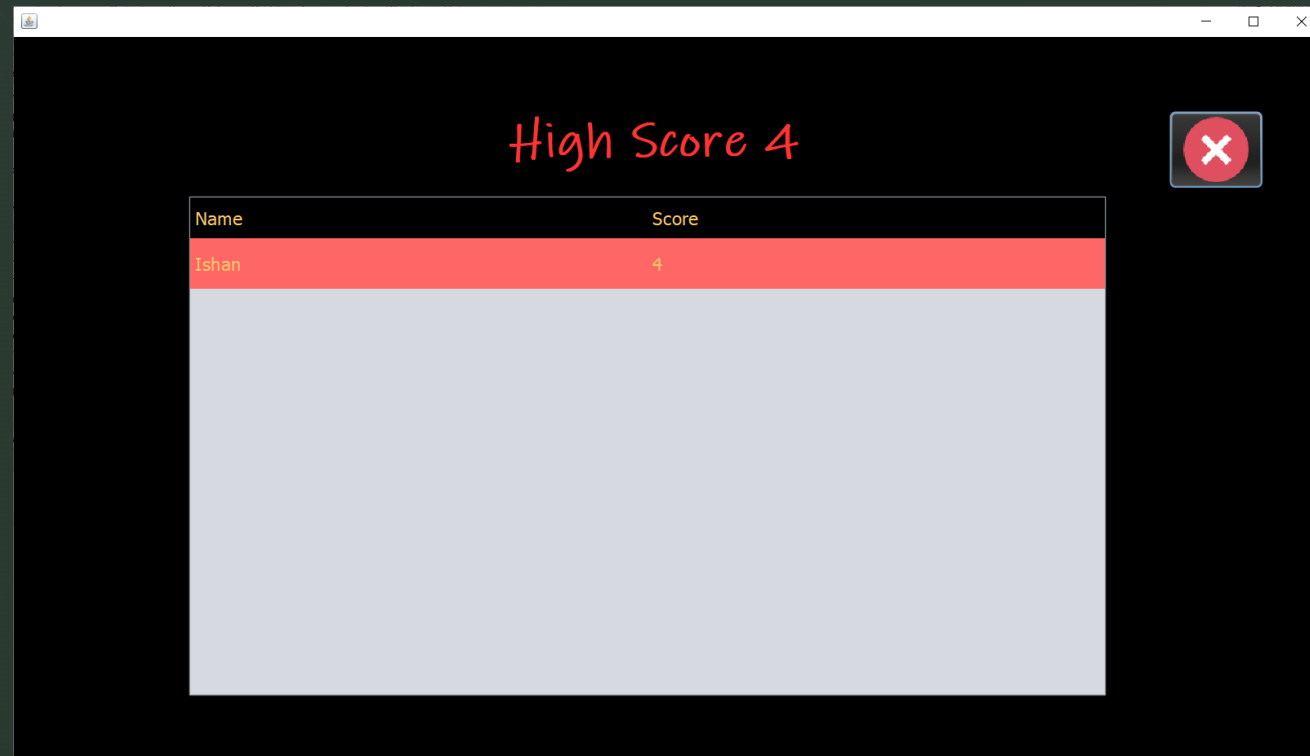- GamePanel() -> Inherits JPanel

Home() Class

The Home Class is the main home window of the program. It inherist the JFrame and contains the buttons needed for navigation.

Scoreboard() Class

Scoreboard class inherits JFrame and displays the score board using JDBC and JTable. It also contains a button to prompt the user back to the Home Welcome window.
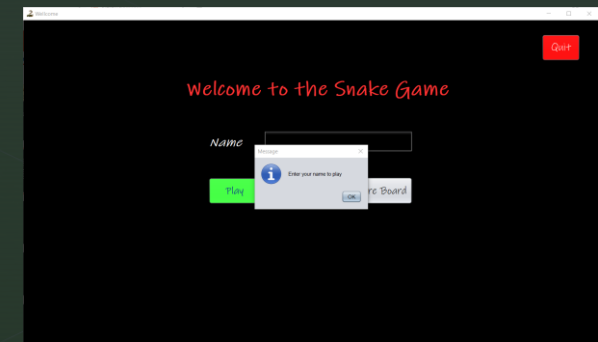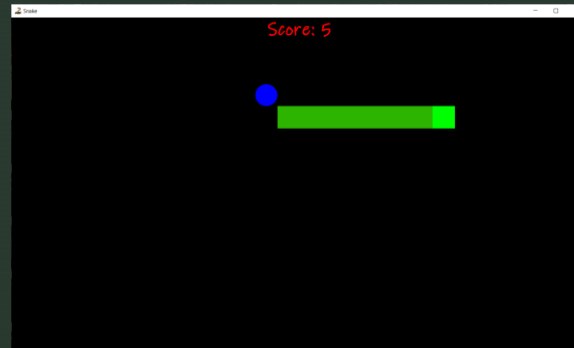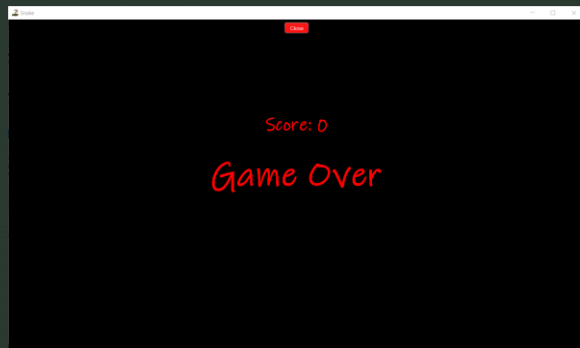
GameFrame() Class

- This class also extends the JFrame class and act as a container for the main game in the pannel.

- The title is of the JFrame is set to 'Snake' using the .setTitle() method.

- A snake icon is set to the JFrame using .setIcon() and .getImage() methods.
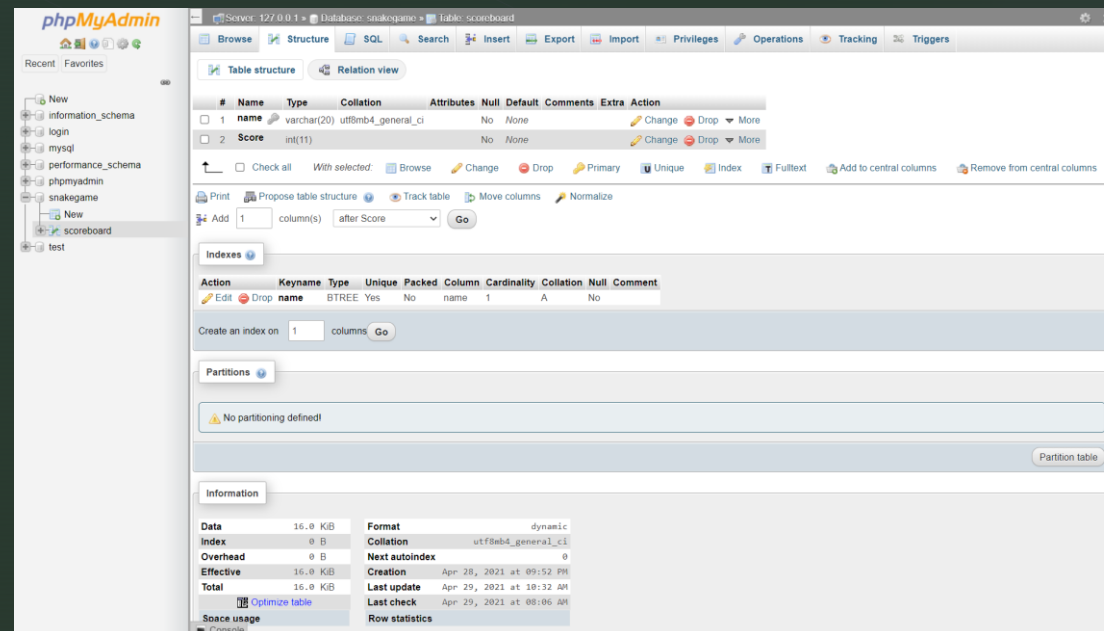
GamePanel() Class

It inherits the JPanel class and contains the main game console. The game is over if the snake touches any of the boundaries of the pannel. The length of the snake increases by eating more and more apples. The panel is divided into an array of small squares, by using which the Snake and Apple Graphics are designed. There are two apples in the game, the red apple only gives 1 point and increases the length by 1 unit while the blue apple increase 3 points and the length by 3 units. Once the snake if big enough the player needs to be more concentrated as the chances for collision increases. This games test the hand to eye coordination of the player.

PHP My Admin

- php My Admin is used for creating the snakegame Database.

- The snakegame Database has a table scoreboard that stores the names and scores of the players.

Difficulties Faced

- Being a large Program, the program faced some concurrency issues, it was not getting updated as soon as the changes were made, each time there was a need to clean and rebuild the project.

- There were issues regarding the databases and the connection due to inclusion of the wrong jar file.

References

- Java The complete Reference.

- StackOverflow

- https://youtu.be/bI6e6qjJ8JQ

- https://youtu.be/bH5ZcEsFhxg

Thankyou