Anna university - MIT Campus

Department of information technology

Mini Project

" SNAKE GAME"

Submitted to

Mrs.Elizha Femi Sherley

Department of information technology

MIT Campus

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Submitted by

Yuvashree.N   **Thaanushee.S.B**

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1 Introduction

Project documentation is concerned with describing the delivered software product, in this case the Multiplayer Snake game project. Project documentation includes user documentation which tells users how to use the software product and system documentation which is principally intended for further development and understanding.

2 Abstract

This project aims to bring the fun and simplicity of snake game with some new features. It will include computer controlled intelligent opponents whose aim will be to challenge the human players. It will also have the multiplayer featur e that will allow more than one players to play the game over a network.

This project explores a new dimension in the traditional snake game to make it more interesting and challenging. The simplicity of this game makes it an ideal candidate for a minor project as we can focus on advanced topics like multipla yer functionality and implementation of computer controlled intelligent oppo nents.

3 Objectives

This game aims to change the way people think of traditional snake game. It wi ll offer the

experience of commercial multilayer games to the player retaining the simplicit y of traditional

snake game.

The major objectives of this project are:

●
Create a snake game that will have all the functionality of traditional snake ga mes.

●
Introduce multilayer functionality in the game that will allow several players to play a game simultaneously. It should be able to give the experience of a real t ime multiplayer game to the players.

●
Introduce computer controlled intelligent opponent (unique feature of this ga me) to make the game more challenging and interesting. The movement and a ction of these intelligent opponents will be controlled by computer whose aim will be to eat the food before human players capture it.

4 Programming Environment

We used several open source tools to develop this project:

● Eclipse 5.5 IDE

All the developers of iSnake team used Eclipse IDE for the development of this project.

5 Existing System

Previously, there was no facility of having online games and if provided, most of them having signup options. But to make easy gaming options, there was no single button sign up options. There was no provisions of changing gaming control and settings to allow players a convenient playing environment. The most among many was the feature of random AI which was not available under existing system. There was no provisions of adding extra gaming section for future reference by the admin to make their website highly demanded in coming future. The point which was not available was decision control by the system. Previously the system was bound to use predefined rules, but the new system will over ride all these difficulties.

6 Proposed System

In this new gaming environment, no registration and fees required to play the games. Among all, there are two types of games which can be played by the users. They have to options to switch in between these games while playing and the system will keep track of their scores ion particular modules. To make an interesting gaming environment, these two games which will be available are: graphical number snake game and another one is disaster strike. We have tried to code smart decision making algorithms to make system more intelligent and can learn the moves from the human beings. At the same time, while playing most of us faces difficulties while handling keys and other controls. To overcome from all these problems, users have been provided freedom, to change the gaming control as per their convenience and change settings to have their controls while playing the games.

7 Building the Game

It's the headrest part in all the line of process.

When we first start the game we first planning, find out the requirements, draw the architecture.

To build the game need to know programming language (this time C#). The development phases are:

- ✔ Creating a single Snake.
- ✔ Creating a Food.
- ✔ Snakes collision with food.
- ✔ Snakes collision with wall
- ✔ Snakes don't move two directions at a same time.
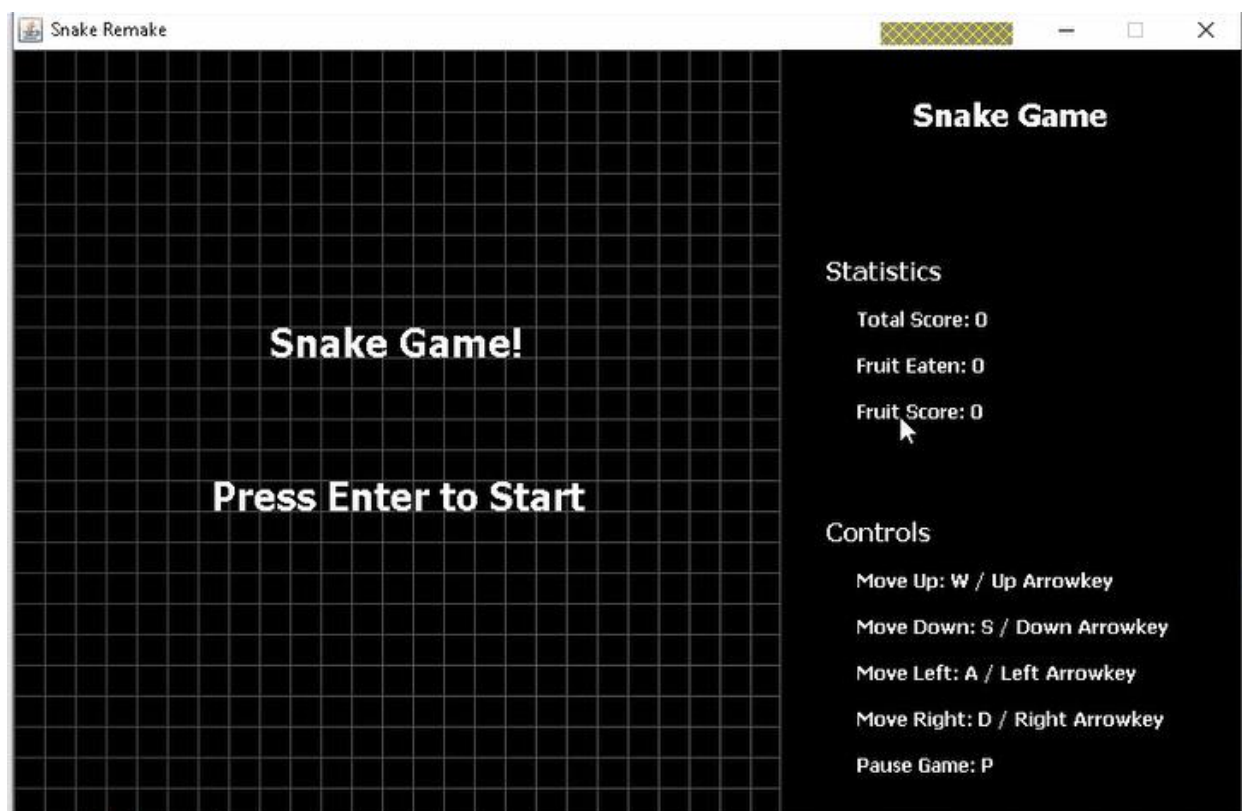
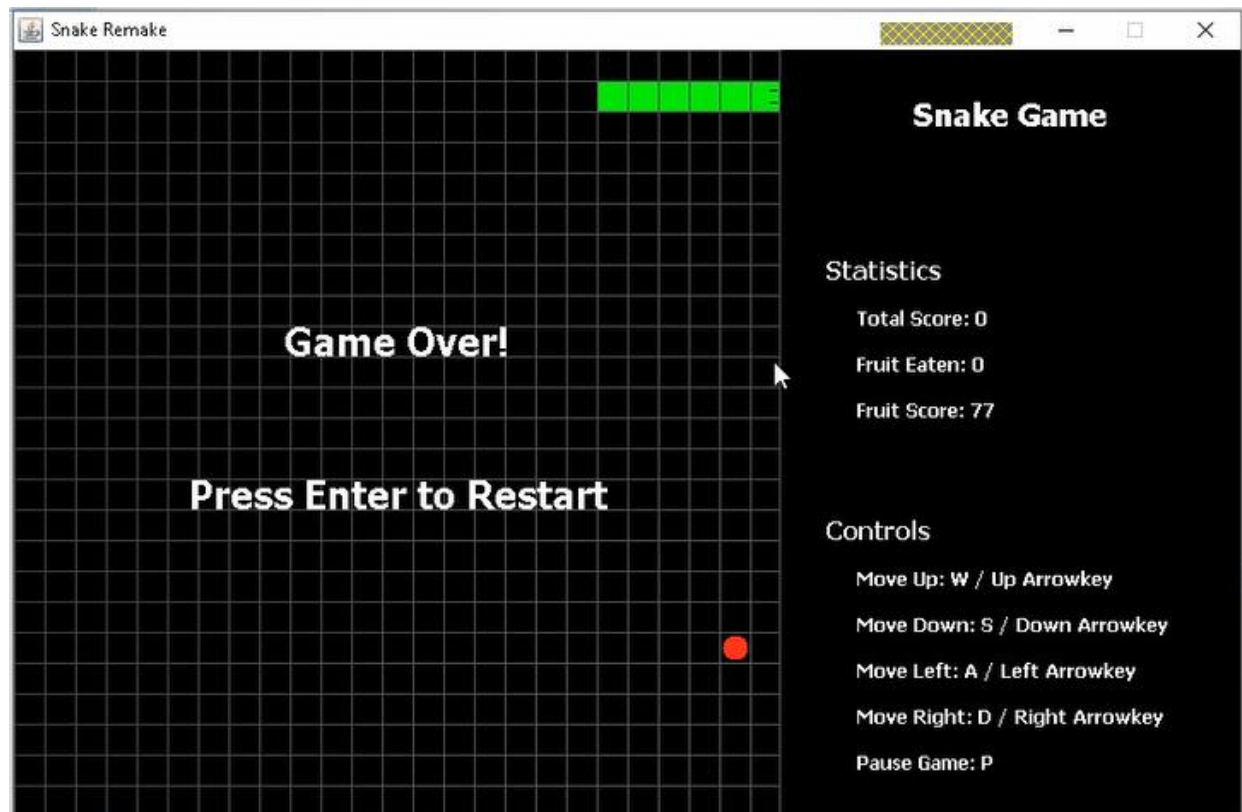- To start the game ,press ENTER button.

Movement keys are:-

Move up- up arrow key

Move down-down arrow key
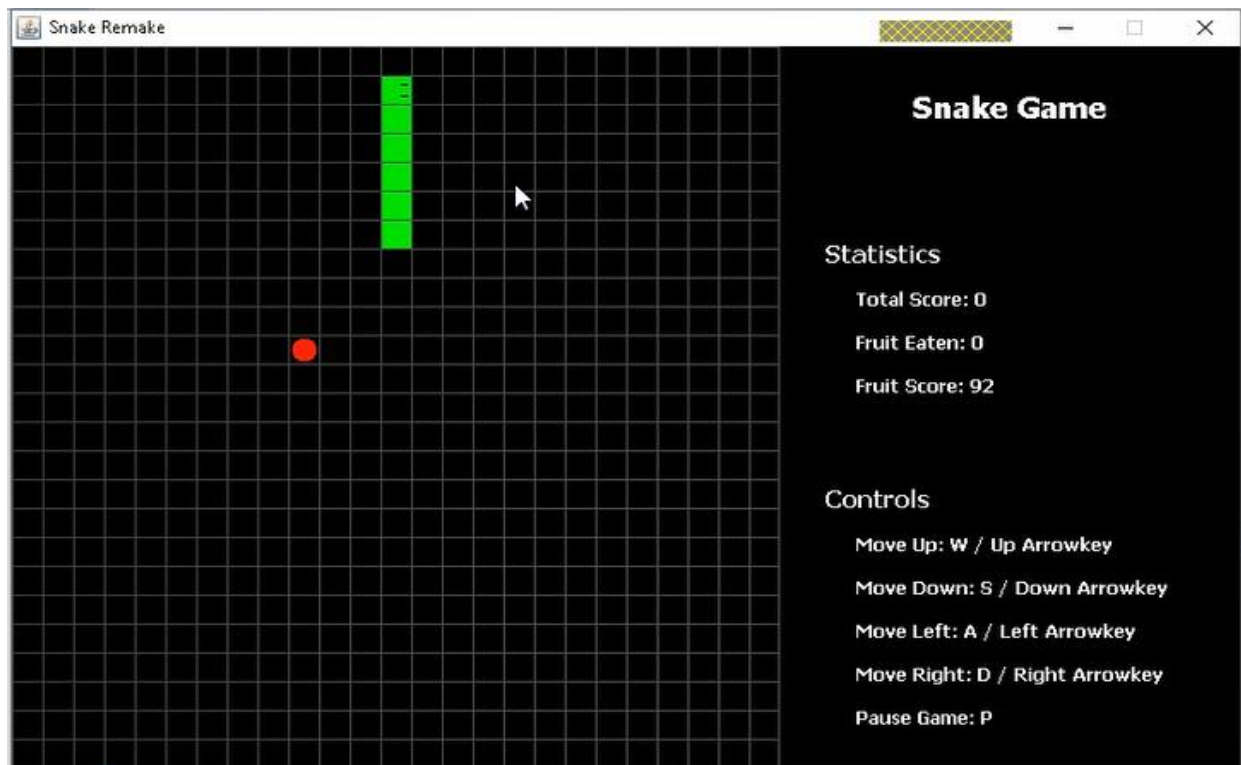
Move left-left arrow key
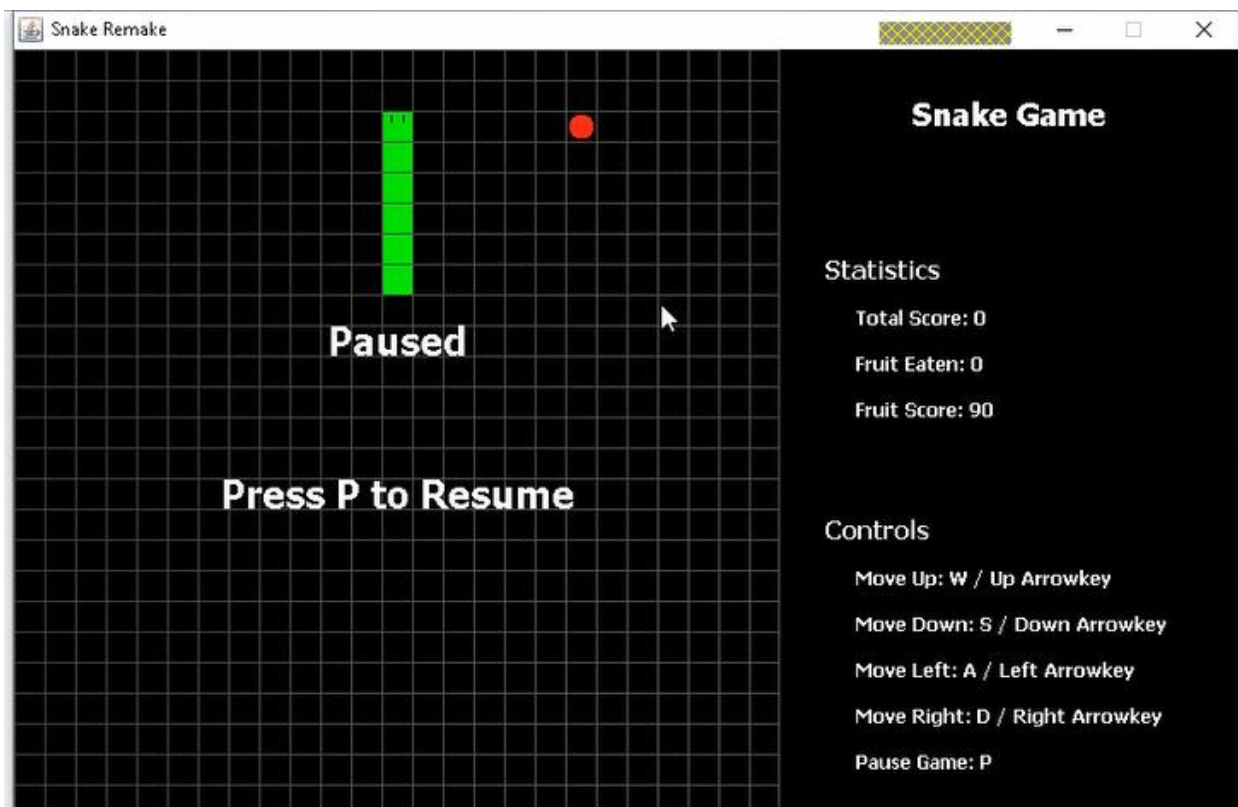
Move right-right arrow key

Pause game -P

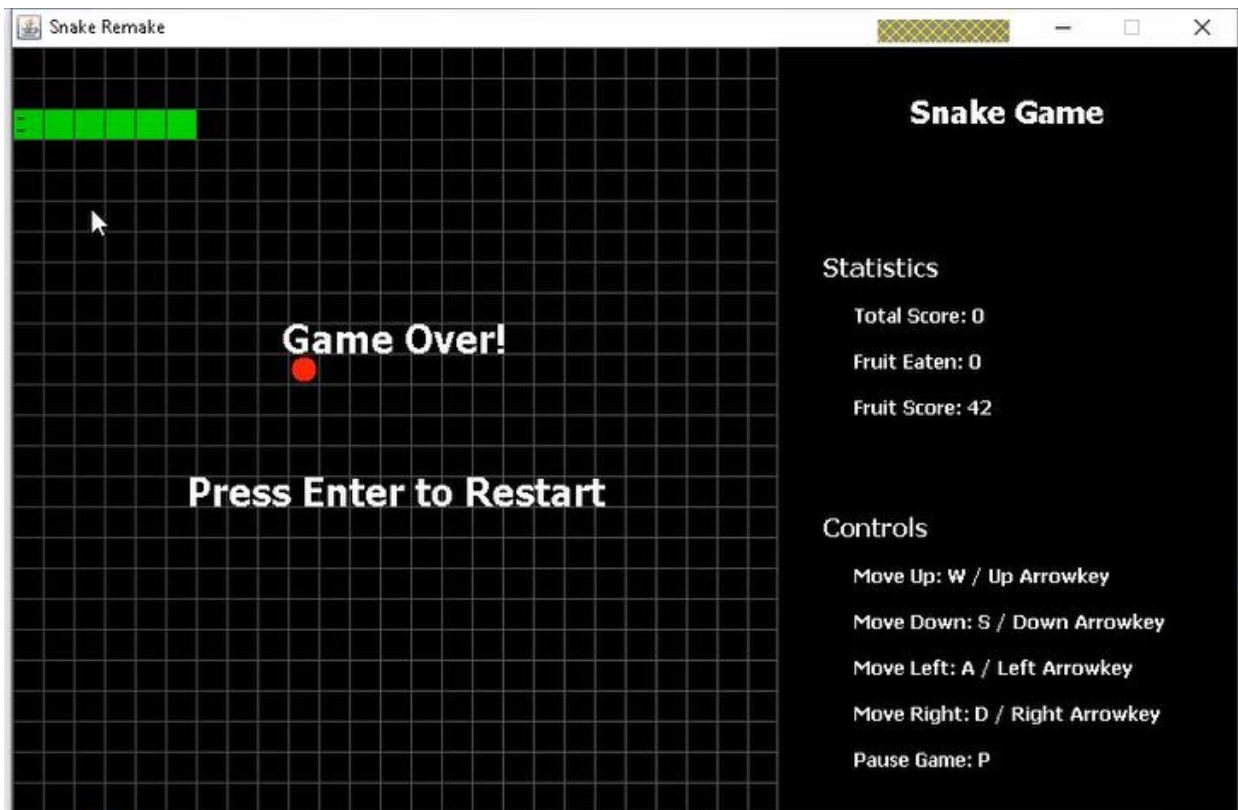- • The main goal of the snake game is to eat the fruit without hitting
  wall.

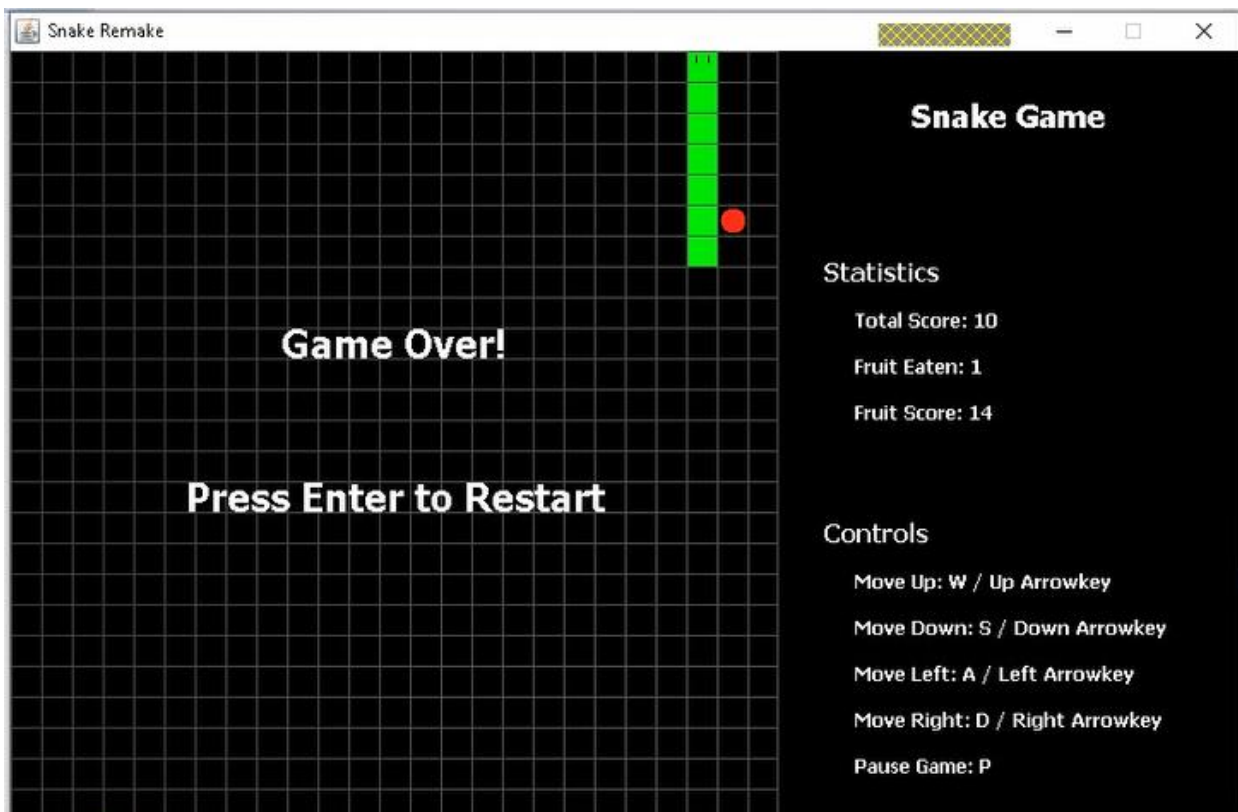If snake hits the wall,the game will end.To play again press ENTER
button .

- Press 'P' to pause the game

- To resume the game press 'P'and then game will be started again.

- Fruit score will be given according to how many fruit does not a snake eats.

- Fruit eaten and total score will be given according to how many fruit does the snake eats.

8 Conclusion

This project gives us more thrilling, frustrating and also gives us more pleasure. It helps us in many sectors like- planning, designing, developing, managing, programming skill, socket programming and so on.