Introduction:

Snake game is a computer action and instant game which goals to control a snake to move around a fruits, and it is easily run in any platform like android and OS platform. There is single player that challenges a player to grow a snake as long as possible. The player guides the snake around the fruits when the snake contact to fruits then its body grow one unit length, if the snake collide the boundary with its own body then the game ends.

Features:

- **Making a boundary.**

- **Then generate the fruits and the fruits are generated randomly for snake.**

- **It move in east, west, north and south direction and the key we use (W,A,S,D Keys).**

- **Increase by length and score whenever the snake eats a fruits.**

- **When the snake touch the boundary line then gameover.**

High Level Requirements:

1) **It is a basic snake game which represent the basic code and logic.**

2) **It is played by a user for single player.**

3) **when the snake is eat the fruit then it increase by length and score**

4) **Snake is collide the boundary then gave over.**

Low Level Requirements:

1) **It is downloaded in any platform.**
2) **Using Printf statement for avoid confusion.**

Advantages:

- **Snakegame is very easy game it can be played anyone.**

- **In this game it shows the mathematical expression by sum.**

Disadvantages:

- **In this game there is no next level part, it going on constant again and again.**

- **This game is a indoor game but it is affected to our eye if we are playing continuously**

SWOT Analysis:

a) **Strengths**

In this game we can use c language it is good for the beginners students to understand the logic and concepts, its also boost up our courage.

b) **Weakness**

Weakness is like recovery, it restrict the user from accessing other user data.

c) **Opportunity**

Day by day it is available in all devices.

d) **Threats**

Ethical challenges.

Need to customize for customer and expectation.

4W's and 1H's:

a) **What**

Snake game is a computer action and instant game if anyone one want to play then he can easily play within in a time and it save the time also.

b) Where

It start the counter of the boundaries moving with all direction, snake moves a constant speed and it all direction east, west, north, and south.

c) When

There is no time boundation it can start anytime

d) Why

I am developing this code for performing my coding skills and understand

the logic concepts.

e) How

In this project i am using c language many features are available to use but i am gone with function and built-in-function.

- In Built-in-function using kbhit() function which helps taking any key from the keyboard. And it is declare in <conio.h> header file.

- Rand() function helps to generate the random number and it declare <stdlib.h> header file.

Reference:

GeekForGeeks.

Youtube C programming.

Tutorialspoint.

Design

Flow chart

Behavioural Diagram

```
########################
#            *          #
#                       #
#                       #
#                       #
#                       #
#                       #
#                       #
#                       #
#                       #
#            0          #
#                       #
#                       #
#                       #
#                       #
#                       #
#                       #
#                       #
########################
score=0
press x to quit the game_
```
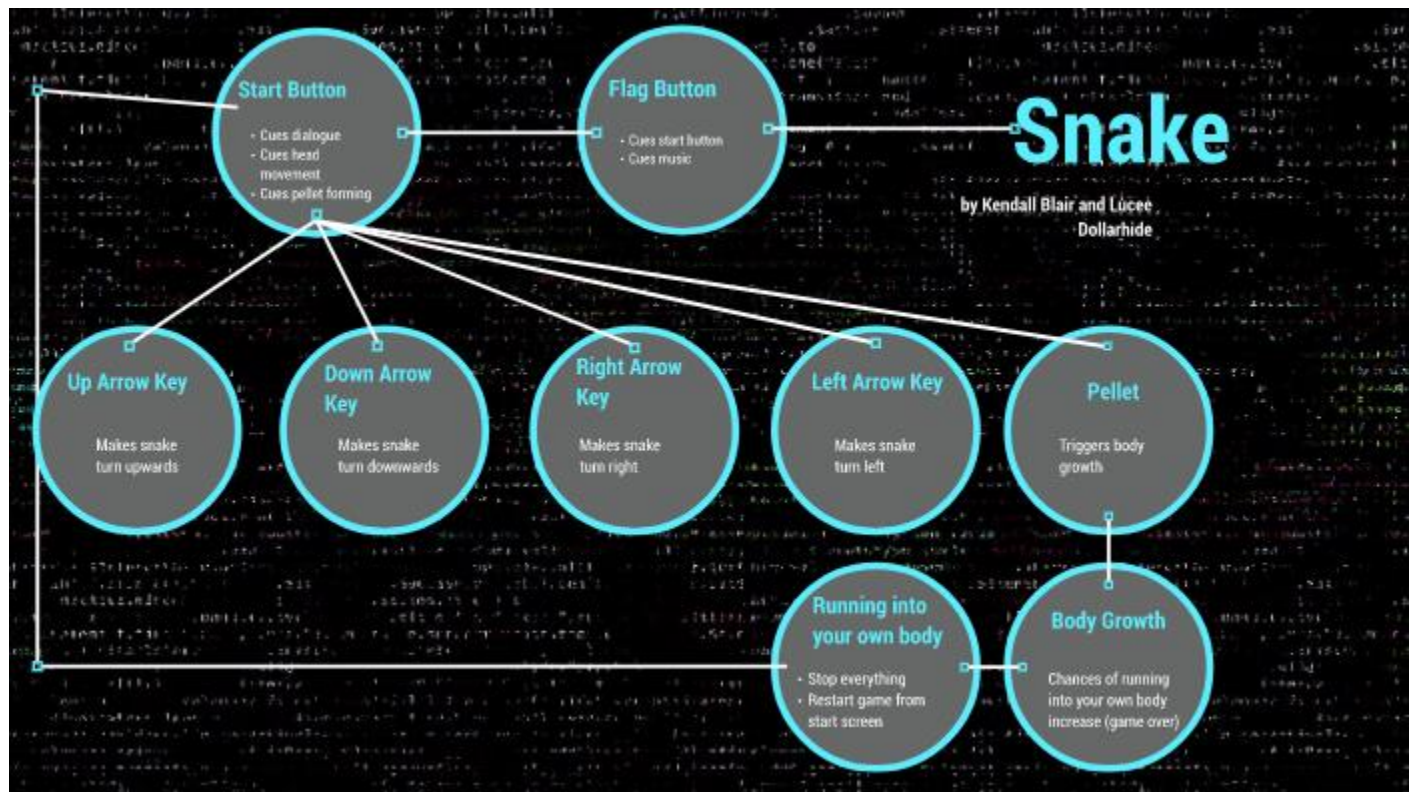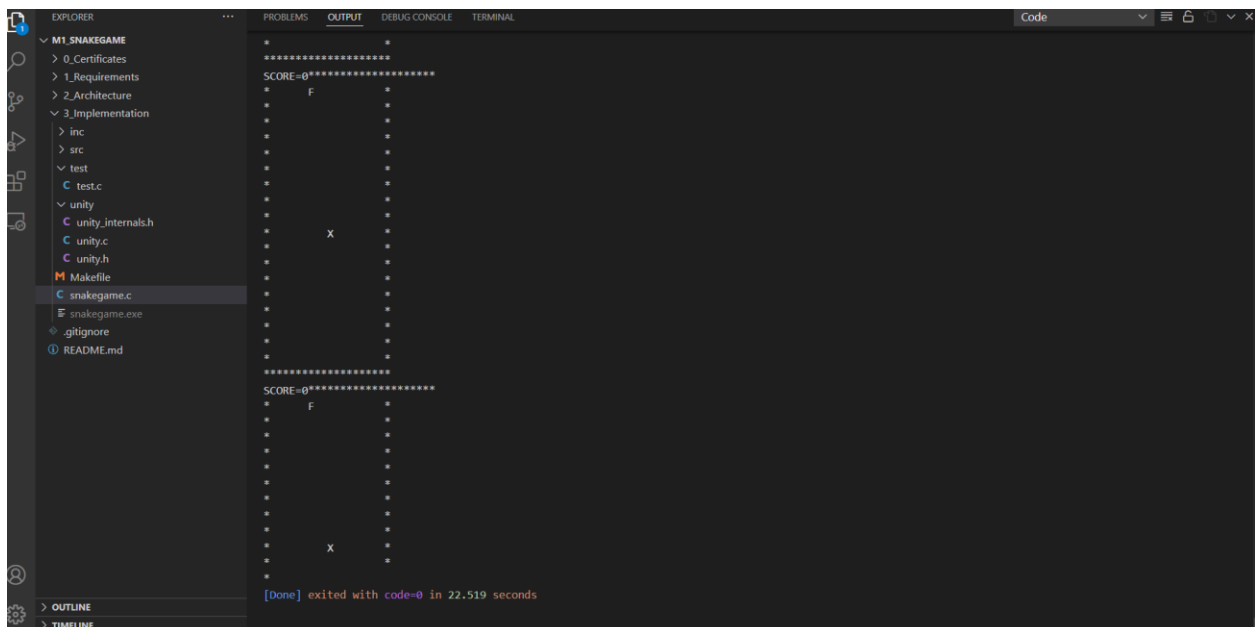
Output

```
********************
*       F          *
*                  *
*                  *
*                  *
*                  *
*                  *
*                  *
*                  *
*                  *
*                  *
*                  *
*                  *
*                  *
*                  *
*                  *
*                  *
*                  *
********************
SCORE=0
--------------------------------
Process exited after 338.5 seconds with return value 0
Press any key to continue . . .
```

```
*********************
*                   *
*                   *
*                   *
*                   *
*                   *
*                   *
*                   *
*                   *
*                   *
*                   *
*                   *
*                   *
*                   *
*                   *
*                   *
*                 o *
* F               o *
*********************
SCORE=30
---------------------------------
Process exited after 21.06 seconds with return value 0
Press any key to continue . . .
```