ABSTRACT

The Snake game is a classic arcade game that has been enjoyed by players of all ages for decades. The game involves controlling a snake on a game board and feeding it with food while avoiding collisions with walls. The objective of the game is to achieve the highest possible score by feeding the snake. The Snake game can be implemented in various programming languages, including C, and can serve as an excellent project for beginner programmers to develop their coding skills and problem-solving abilities. This abstract provides a brief overview of the Snake game and its key features, highlighting its popularity and potential for educational purposes.

INTRODUCTION OF THE PROJECT

The game called “Snake” typically involve the player controlling a snake, there is no official version of game, so gameplay varies.

Your goal is to move the snake and eat as many "food" blocks as possible. There is only one food block at any given time.

Each time the snake eats a piece of food, the score increases.

The main objective of the player is to catch the maximum number of fruits without hitting the wall.

Snake game is a computer action game, whose goal is to control a snake to move and collect food in a map.

A number of C library functions, including, "scanf," "printf," "system," and "getch," are used by the program to execute its functionality.

MODULE DESCRIPTION

1) **kbhit():** This function in C is used to determine if a key has been pressed or not. To use this function in a program include the header file conio.h. If a key has been pressed, then it returns a non-zero value otherwise it returns zero.
2) **void Delay(long double)** – This function delays the execution.
3) **void Move()**-Initial Bend Coordinates.
4) **void Food()**-To Generate Food Coordinates.
5) **int Score()-**To Display the SCORE.
6) **void Boarder()-**Creates a boundary in which game will be played.
7) **void ExitGame()**-To exit game.

ALGORITHM

Step 1: Initialize the game board and snake.

a. Create a 2D array to represent the game board.
b. Place the snake on the board with an initial direction.

Step 2: Game loop

a. While the game is not over:
b. Get user input for the snake's direction (W, A, S or D)
c. Move the snake one step in the specified direction
d. Check for collisions with walls or the snake's body
e. If there is a collision, end the game
f. If the snake eats a piece of food, increase the score and place a new piece of food on the board
g. Update the game board with the new positions of food
h. Display the updated game board to the user

Step 3: End the game

a. Print a message to the user indicating the game is over

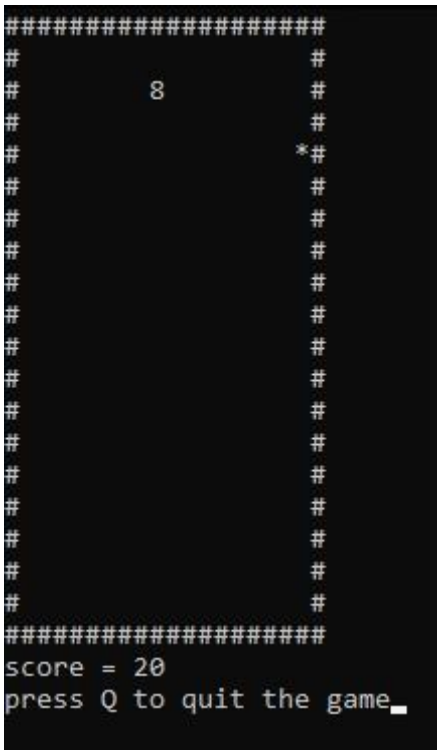
RESULT AND DISCUSSION

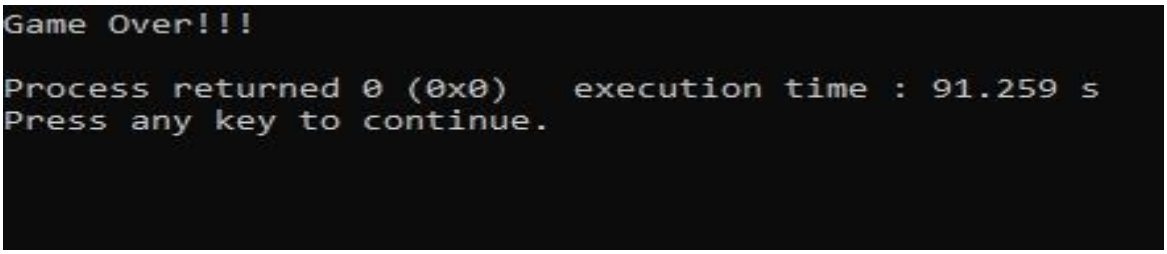
Here Snake is represented as ‘8’ and Fruit is represented as ‘*’.

‘#’ represents the boundary.

The result of the Snake game is based on the player's performance in terms of score and gameplay. The objective of the game is to achieve the highest possible score by collecting food items as long as possible, while avoiding collisions with walls.

The game ends when the snake collides with a wall. At this point, the player's score is displayed and game ends. The more food items the player collects, the higher their score will be.





CONCLUSION

In conclusion, implementing the classic Snake game in C requires setting up the game board with a 2D array, creating the snake, and then implementing the game logic. The game logic involves detecting user input to move the snake, checking for collisions with walls and food, and updating the snake's position on the board. As the game progresses, the score increases and the game becomes more challenging. With careful coding and attention to detail, the Snake game can be a fun and engaging project for beginner programmers in C.

REFERENCES

1. Textbook for C Beginners - by B V RAMANA
2. https://www.geeksforgeeks.org/snake-game-in-c/

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+ 91 9888 73 8888

placementcell@destinationtechs.com

#951,2nd Floor, Mico Layout, BTM 2nd Stage, Bengaluru - 560 076