

SNAKE GAME



MOTIVATION

To give a feel of old games that were played on a keypad mobile and reliving the experience and enjoyment of a classical game.



HIGHLIGHTS OF PROJECT



Library

We are using two libraries here
graphic.h and ctime



User Input

User input handling for controlling
the snake's movement.



Generating Food

Generation of random food
positions and checking for collisions
with the snake.



Snake Body

Drawing the snake body, including
the head and tail segments.

HIGHLIGHTS OF PROJECT



Making Obstacles

Implementation of obstacles and boundaries.



Score Tracking

Keeping track of the player's score based on the length of the snake.



Status of Game

Displaying the game status, such as "Playing," "Game Over," or "You Won!"



Loading and Transitions

Creation of loading screen and smooth transition between game frames..

LEARNINGS:-

- Implementing a graphical game using the graphics.h library introduced the concept of rendering graphics, handling user input, and implementing game logic.
- Collision detection logic to detect collisions between the snake's head and the food or obstacles.
- Working with multiple game frames using the double buffering technique.
- Implementing a loading screen for visual appeal and user experience enhancement.
- Random Number generation using ctime header .





AREAS OF IMPROVEMENT

1.TIME COMPLEXITY

As this code contains various recursive calls so time complexity is generated.

2.MOVING OBSTACLE

We can add moving barriers and obstacles to make the game more adventures.

3.SOUND EFFECTS

Adding Sound Effects synced with the game play will enhanced the gaming experience of user.

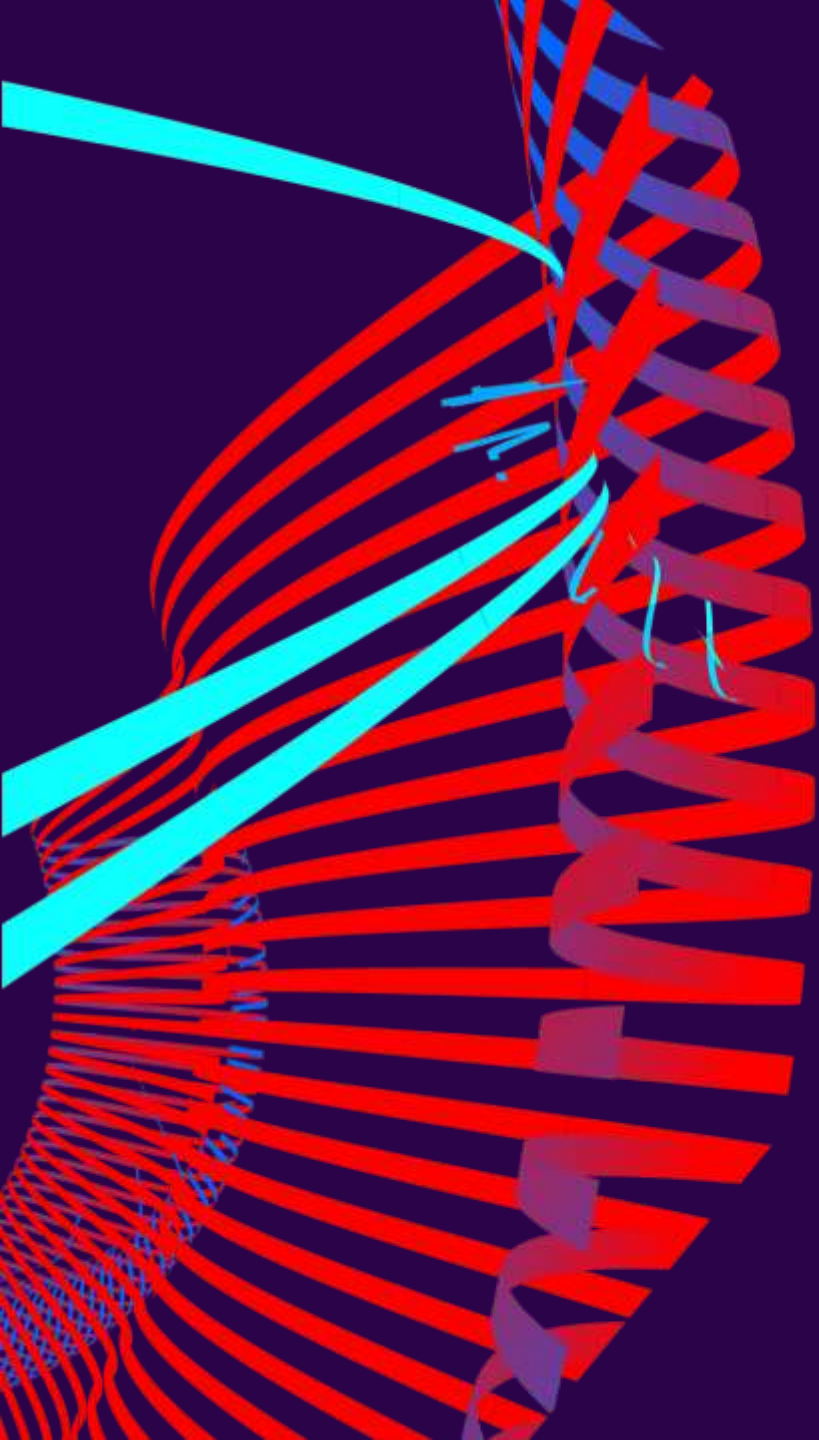
4.PLAY & PAUSE

We can add resume button in the game to get more involved in movements.



FUTURE SCOPE

- The Snake game is a classic and popular game that can serve as a recreational activity for users.
- It can be used as a starting point for learning game development concepts and improving programming skills.
- The project can be expanded to include additional features, levels, or game modes to make it more appealing to users.
- It can be integrated into a larger gaming platform or used as a part of a game development portfolio to showcase programming abilities
- Multiplayer Enhancements will make it more adventures. Real-time leader board , chat system will also make it more professional.



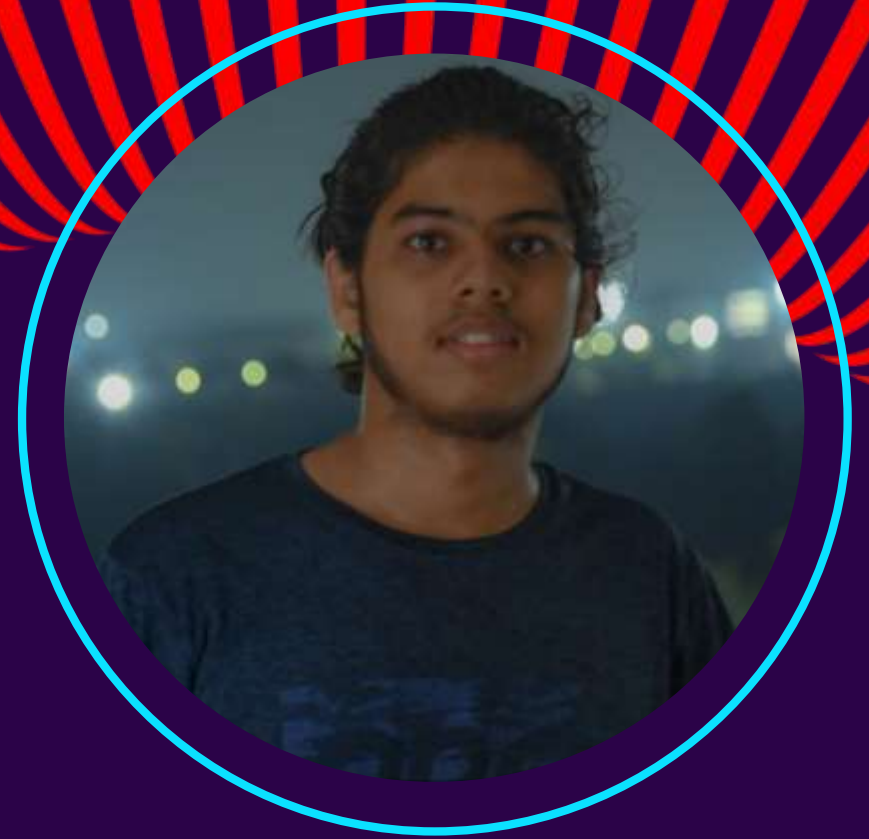
TEAM OVERVIEW

My experience working on the Snake Game project was both educational and rewarding. The project involved various tasks, including creating a Snake header file, installing the graphics.h library, and creating a README file. Additionally, I utilized GitHub to manage the project's codebase and collaborate with others. The first task involved creating a Snake header file. This allowed me to organize the code and separate the Snake-related functionalities into a reusable module. Installing the graphics.h library was a crucial step in developing the graphical aspects of the game. Writing the README file also helped me improve my technical writing skills and attention to detail. Utilizing GitHub for version control and collaboration was a valuable experience. I learned how to create a repository, commit changes, and manage branches. Overall, working on the Snake Game project was a fulfilling experience.



TUSHAR RANJAN
LEADER
22EE02005

My experience working on this project was exciting and challenging. The project involved several tasks, including creating a project PDF, implementing a food function, and creating a project video. Creating the project PDF required me to compile all the necessary information, including project goals, methodologies, and results, into a well-structured document. Food Function was responsible for generating food items within the game and handling interactions with the snake. It required me to carefully design the logic and algorithms to ensure that the food was generated at random positions and that the snake could detect and consume it. Creating the project video was a fun and creative aspect of the project. It allowed me to demonstrate the gameplay, features, and functionalities of the project in a visual and engaging way. Overall it was a good experience at all.



CHETAN SHARMA
22EE02007

Working on the main function and utilizing GitHub involved both coding and collaborative aspects, allowing me to contribute to the project's development and learn valuable skills in version control and teamwork. I began implementing the main function, this involved handling user input, updating the game's state, and managing the game loop to provide an engaging and interactive experience. Simultaneously, I leveraged GitHub to facilitate collaboration and version control throughout the project. I created a repository and established a well-structured file hierarchy, ensuring that the main function and other relevant files were appropriately organized. Overall, my experience with the main function and GitHub in this project was highly beneficial.



NOBEL DAS
22EE01062

My experience working on this project involved several key aspects, including setting up CodeBlocks, installing the graphics.h library, creating a project video, and debugging the game for any existing bugs. I followed the installation process meticulously, ensuring that all the required dependencies were properly installed. It involved downloading and configuring CodeBlocks IDE on my system, which served as the foundation for my project development. As part of the project requirements, I also worked on creating a project video. This involved showcasing the game's features, gameplay, and overall functionality. Throughout the development process, I encountered various bugs in the game that required debugging. In summary, my experience working on this project was a valuable learning journey.



PRIOTOSH SARKAR
22EE02010

SUMMARY

The Snake game project is a classic arcade-style game. Player control a snake and try to eat food while avoiding collisions with walls and their own tail. The game features a graphical user interface with colorful graphics and sound effects. Overall, the Snake game project serves as an excellent starting point for learning game development concepts and provides ample opportunities for expanding and customizing the game to create a more engaging and polished gaming experience.

THANK YOU