SNAKE VS BLOCK

FINAL PROJECT IN ADVANCED PROGRAMMING

LOGICAL DESIGN

We decided the user flow according to the steps and rules of the game. We formulised the UML and use-case diagrams on this basis, and then translated these into actual working code.

VISUAL DESIGN

After creating the UML diagram for the game, we had to convert the logical elements into their graphical counterparts. We had to determine the appropriate pictures/shapes to represent the elements, an appropriate colour scheme and layout of buttons, tokens, etc. to suit the user.

GROUP #65

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IMPLEMENTATION

- A new player and their snake are created for every new game.
- Every snake has its own score, time, length, etc.
- The game board is rendered 60 times every second, where new elements appear from the top of the screen.
- There is continuous checking for collisions using AnimationTimer between any elements and the snake.
- During collision, animation effects have been used.
- The snake's length, player score, game speed are updated according to the specified rules.
- The game is saved when the player exits/pauses the game. The game can be resumed at any later time.
- The data in the leaderboard is stored and updated using serialisation, every time a game is finished. The game finishes only when the snake dies.
- There is an instruction menu when the game starts.

Division of Work

Common

- UML
- Use- Case
- Static Screens and Elements
- Snake Movement
- JavaDoc
- Presentation

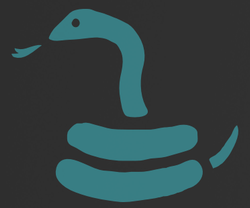
Riya

- Board Movement
- Logical implementation of tokens
- Serialisation
- Score updation
- Leaderboard
- Pause/Resume
- Sound

Meeha

- Destroy Animation
- Screen randomisation
- Instructions bonus
- Snake Length bonus

BONUS FEATURES

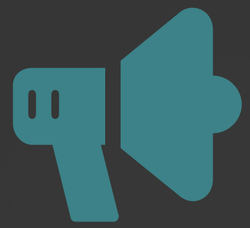


SNAKE LENGTH

Displayed along with score during game

INSTRUCTIONS PAGE

A detailed description of all the elements of the



SOUND EFFECTS

Explosion/rewards similar to the actual game, during collisions

RESTART SHORTCUT

Restart using the down key

COIN POWERUP

Collect coins in the game to increase length