

SNAKE VS BLOCK

(GROUP-25)

Efforts By : Aman Mehra(2017017)
Bhavye Anand Gupta(2017038)

Design and Implementation

- The application has been modularized. We have created relevant packages and placed relevant files under each package. All aspects of the game are implemented independently.
- Interaction between independent classes have been handled keeping in mind optimum privacy and abstraction, by distribution functionality under various degrees of accessibility
- Multiple event handlers and timers are used along with delays and boolean flags to control and coordinate in game events, graphic generation and user inputs.
- We save the state of unfinished games, to allow users to resume later on.
- Top 10 scores are visible in the leaderboard page along with respective date and time.

Individual Efforts

- Bhavye Anand Gupta (2017038) :
 - a. Created UML **Use-Case** diagram for the project.
 - b. Created all the **static GUI** components and handled blocks, tokens generation.
 - c. Handled **serialisation** and **deserialisation** of game state whenever needed.
 - d. Handled all the exit cases and **optimised** the code to handle user generated anomalous events.
- Aman Mehra (2017017) :
 - a. Created UML **Class** diagram for the project.
 - b. Handled **ALL** the ingame events and dynamics.
 - c. These include snake **movement**, token **actions**, **collisions** during gameplay, **explosions**, etc.
 - d. Handled **difficulty optimisation** of the game by making block, token and game speed dynamics intelligent.

Bonus Components

- We have created a **pop-up box** which confirms every time the user wants to exit or restart the game, application. It also pops up when user wants to exit in unusual cases.
- The **skin colour** and **head colour** of the snake changes as and when it acquires a token, for eg. shield, magnet. This indicates the user about appropriate token he/she has acquired, so that he/she can use it to its full potential.
- Fluid and **realistic snake movement** for enhanced gameplay and responsiveness.
- **Special effects** including reverberatory sideways collisions and explosions.