

# Number Guessing Game

## Purpose:

- A text-based guessing game where the player tries to guess a randomly generated number.
- Offers different difficulty levels and tracks player statistics.

## Key Components:

- **Header Files:**
  - `iostream`, `cstdlib`, `ctime`, `vector`, `string` for input/output, random number generation, time, storing data, and handling text.
- **Functions:**
  - `displayWelcomeLogo()`: Displays a welcome message.
  - `displaySparkles()`: Displays a winning message.
  - `displaySadFace()`: Displays a losing message.
  - `displayLastRounds()`: Shows the results of the last 3 games.
  - `displayStats()`: Displays overall game statistics.
- **Main Function:**
  - Initializes variables for tracking game data.
  - Displays a menu with options: new game, view last rounds, see stats, or exit.
  - Handles user input and performs corresponding actions.
  - For a new game:
    - Sets difficulty level (easy, medium, hard).
    - Generates a random number.
    - Allows the player to guess the number within a limited number of attempts.
    - Provides hints based on the guess.
    - Records the game result (win or loss).
  - Updates and displays game statistics and last round results.

## Additional Features:

- Last attempt hint: Provides 5 options to choose from.
- Win/loss messages with details.
- Player statistics tracking.
- User-friendly interface with clear messages.