

REPORT – BRICK BREAKER GAME

1. Introduction:

Brick Breaker is a classic arcade game that originated in the 1970s and gained popularity through various iterations over the years. The game involves controlling a paddle at the bottom of the screen to bounce a ball and break a wall of bricks at the top. This report provides an overview of the Brick Breaker game implementation in C programming language.

2. Game Objective:

The objective of Brick Breaker is to break all the bricks on the screen using a ball controlled by a paddle. The player must prevent the ball from falling off the bottom of the screen while strategically bouncing it off the paddle to hit the bricks.

3. Features:

- **Paddle Control:** The player can move the paddle left and right using the 'A' and 'D' keys, respectively.
- **Brick Collision:** When the ball collides with a brick, the brick disappears, and the player earns points.
- **Ball Movement:** The ball moves automatically, bouncing off walls, bricks, and the paddle.
- **Scoring:** The player earns points for each brick broken, with the score displayed on the screen.
- **Lives:** The player starts with three lives, losing one each time the ball falls off the bottom of the screen.
- **Difficulty Levels:** The game offers three difficulty levels - Easy, Medium, and Hard, each with different ball speeds.

4. Implementation:

The game is implemented in C programming language using the ANSI escape codes for terminal graphics. It utilizes features such as keyboard input handling, time delay, and screen clearing to create the game environment. Additionally, functions are used to draw and clear game elements such as bricks, paddle, and ball.

5. Enhancements:

- **Multiple Balls:** An enhancement to the game allows the player to choose between one or two balls, increasing the challenge.
- **Additional Lives:** When selecting two balls, the player gets three lives, providing more opportunities to play and score higher.

6. Conclusion:

Brick Breaker is a timeless arcade game that offers simple yet addictive gameplay. This implementation in C programming language provides a faithful recreation of the classic game, with additional features to enhance player engagement and enjoyment. With its intuitive controls and challenging gameplay, Brick Breaker remains a popular choice for casual gaming entertainment.