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## Project 2 Milestone Report – *Brick Knockout*

### **Abstract**

*Brick Knockout* is a game inspired by previous game applications, but is quite unique. It is a platform where users can play a fun game and interact with other users by viewing the scoreboard.

### **Introduction**

This game is a platform for users to play a fun game and enjoy themselves. In this paper, a detailed system description, the requirements of the game, a literature survey, user manual, conclusion, and a bibliography will be addressed. Each aspect of this paper will be touched upon and effectively explained.

### **Detailed System Description**

*Brick Knockout* is a fun game that users can play and try to beat their high score or compete against friends with. The game is simple to the average tech user, where they would control the paddle using the left and right arrow keys that is used to bounce a ball that breaks the bricks. The game tracks the player's name, number of lives, level number, and score. If the player scores high enough, they are placed on a high score board, which is displayed at the end of every game. There is an unlimited amount of levels, so the user can play for as much as they'd

like to. Some items are occasionally dropped from the bricks. The green blocks make the paddle larger, and the red blocks make the paddle smaller. The goal of the game is to knock out all the bricks on the screen without letting the ball miss the paddle, resulting in loss of lives, and ultimately, game over. The system UML Diagrams can be viewed in the pdf file named “Project 2 UML Diagrams” located in the prj/2/milestone folder in this GitHub repository.

## Requirements

There are no formal *problems* that the game is addressing, the game was created with gamers in mind who love to enjoy themselves while playing games online. The problem can possibly be identified as pure boredom, or lack of fun games for users to play.

## Literature Survey

This game is based on an existing game called *Breakout*, which was released in 1976 by Atari, Inc. *Breakout* was influenced by the 1972 Atari arcade game *Pong*, which was built by Steve Wozniak and Steve Jobs, which was also widely successful. In the original *Breakout* game, a layer of bricks lined the top third of the screen. A ball traveled across the screen, bouncing off the top and side walls of the screen. When a brick was hit, a ball bounces away and the brick is destroyed. The player lost a turn when the ball touched the bottom of the screen. To prevent this from happening, the player had a movable paddle to bounce the ball upward, keeping it in play. This game, *Brick Knockout*, has a similar game play to Atari’s *Breakout*, but has a unique user interface and a different way of keeping track of user details such as the player’s name, number of lives, level number, and score.

## **User Manual**

### **Controls:**

Spacebar: start game, Pause/Resume while in game.

Left/Right arrow keys: Move paddle.

### **Items:**

Green block: Expand paddle

Red block: Shrink paddle

### **Scoring:**

Brick: 50 points

Level-up: 100 points

Life Loss: -100 points

## **Conclusion**

This game successfully satisfies the need of a simple, fun, easy to use game that users can leisurely play when they please. *Brick Breaker* is an easy to use game that any person with the simplest technology experience can enjoy.

## **References/Bibliography**

[https://osdn.net/projects/sfnet\\_tlk-brickbreaker/releases/](https://osdn.net/projects/sfnet_tlk-brickbreaker/releases/)

<https://github.com/tylucaskelley/brick-breaker>

[https://en.wikipedia.org/wiki/Breakout\\_\(video\\_game\)](https://en.wikipedia.org/wiki/Breakout_(video_game))