<u>Competitive Analysis</u>

Description of Planned Project:

        The foundation of the game Breakout is to break as many bricks as possible with a ball that can bounce off other bricks, the wall, and the player's movable paddle. If the ball ever touches the brick the brick immediately breaks and sends the ball in the opposite direction. The player must use there paddle to prevent the ball from falling below the bottom of the screen or else they lose a turn. There are three turns that you can use to clear the board. The game is lined up so that there is 8 rows of bricks with each two rows being a different color. The color order from the top up is red, orange, green, and yellow. The point value each brick provides when broken goes as follow: yellow is one, green is three, orange, is five, and red is seven. Furthermore, the paddle shrinks below to half of it's original size when the ball hits the upper row (has broken through the red layer). Ball speed also increases after four hits, twelve hits, and after making contact with the orange and red rows. The highest score that is possible is 896 which is only possible if both levels are fully completed.

Evaluating The Competition:
- Tetris- Similar to Breakout, it is a seemingly simple game that is actually difficult to complete. The user plays the game by rotating differently shaped pieces of four blocks. Every time a full row is completed so that all 10 blocks are occupied by game pieces, they disappear and points are earned. The blocks fall at consistent speed and the user needs to be able to fit the pieces correctly under a time crunch. However, the game ends when the player is no longer able to put anymore pieces on the board if there is no more space. The pieces need to be put together just so that they fit together well. The game definitely involves strategy similar to Breakout.
- Swipe Brick Breaker- This game is similar to Breakout, but the levels are infinite. However, as the level increases one more ball is shot than before. The bricks move down the board by one brick space, and the balls that are needed to break the brick is increased by one. This game is unique since the game is continuous and the user has a lot of time to bounce the ball into the bricks.
- Don't Touch The White- This game is a little different from Breakout, but the game structure is very similar. The game is simple on the surface level, like Breakout, but difficult in practice as well. The screen scrolls down and there are squares on the screen that come down and you must touch all the black squares before they reach the bottom of the screen. Again, the similarity is in how simple the games seem but how difficult they are in practice.

Identify Comparison Dimensions:
1. Level of Fun- The game is able to attract people based off of how much fun people have

2. Addictiveness- The willingness for people to continue to play the game is important in improving the game's popularity and to create a following
3. Difficulty- The difficulty of the game is also important so that people do not get bored while playing the game.
4. Length of Each Game- The game needs to be long enough so that people can maintain their interest but also not be too long so that people do not want to start playing.
5. Visuals- The game has to be visually appealing so that people are happy with what the project looks like and so that the user subconsciously will enjoy the game more.

Comparison Table:

	Level of Fun	Addictiveness	Difficulty	Length of Each Game	Visuals
Tetris	9	7	8	9	10
Swipe Brick Breaker	8	9	7	7	10
Don't Touch the White	7	8	9	9	7

Summary:
    In order for our project to be competitive with the competition, the UI of the game must be very attractive and the game needs to be intellectually stimulating enough so that people want to play the game again. The visuals could be enhanced by using colors that complement each other and ensuring that everything is easy to understand and read. Since the game Breakout is already difficult as it is that parameter will be easy to match. Overall, Breakout has a lot of potential and can be better than all of its competitors.