**Topic**: Helicopter Game

**Project** **Description**: In this game, there will be a helicopter constantly falling downwards due to gravity. Pressing the mouse button (or a designated key) will allow the helicopter to move up. The roof and floor will constantly be changing in height randomly as the helicopter moves forward. There will also be random obstacles in the air. The goal of the game is for the helicopter to get as far as possible without colliding with anything.

**Programming** **Concepts**:

* Loops: will be used to constantly create ceilings and roofs of random height
* Method: A method for the helicopter to move up
* Events: Mouse pressed or key pressed event, event for when helicopter collides
* Array: To store the pictures of roof/ceiling
* Files: For storing and displaying high scores
* Sort: For ordering high scores in descending order
* Search: Search for a specific user’s high score
* Extra: Collision detection, music
* Swing: Buttons, label, textbox, form, etc.. for home page

**Research**:

* Collision Detection

**Calendar**:

* May 29 : Work log 1
* June 1: Problem Analysis and Design
* June 2: Get necessary pictures
* June 3: Start Coding
* June 4: Get helicopter to move up and down
* June 8: Get roof and ceiling and random obstacles to work properly, collision detection, documentation
* June 9: Home Screen+ documentation, Formal Testing Plan
* June 11: Final Changes
* June 12: Hand in

\*If I have enough extra time, I may create another small game which counts how fast a person can click (there will be a time limit and a counter for number of clicks)