

EECS 448 Project 3 Engineering Design Artifacts

By: Alec McGlynn, Benjamin Moeller, Blake Richmeier, Jiayi Fu, and Samuel Jerguson

Game Features and Details:

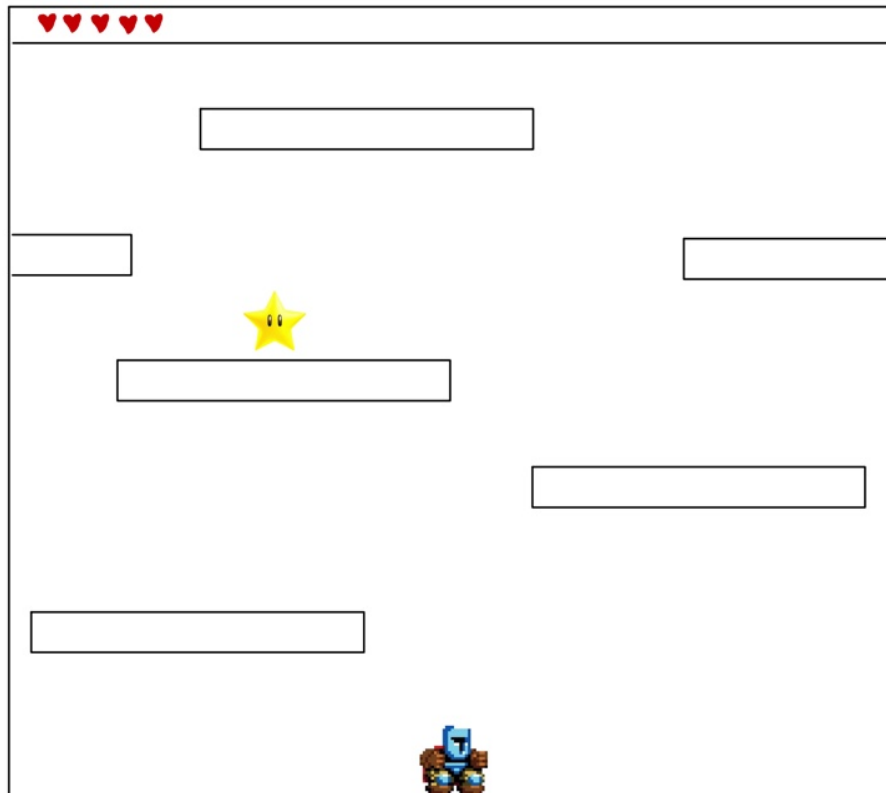
The game we are looking to create for this project is a vertical platformer similar to an existing game called "Jump King". We are looking to create this platformer through working with a game engine and editor called "Unity", and while we are looking to "Jump King" for inspiration, we are also looking to add our own twists to the game to make it different and fun. In the list below are some of the features we look to add, and for the prototype we are first looking to create an initial platformer that we know will have all the basic functionality of a platformer. After having all of the basics down (such as being able to jump from platform to platform, having checkpoints, and knowing when the player has reached the end of the game), we will be able to add features such as enemies increasing difficulty as the game progresses into project 4.

Game Features:

- Jump with varying height from platform to platform
- Pick up one-ups to gain lives
- Receive a checkpoint after every screen
- Enemies on set cycles must be avoided, otherwise the player dies
- If the player runs out of lives they lose a checkpoint
- Difficulty increases along with altitude
- Timer displaying how long the player has been playing
- Game completion after reaching the top
- “Best Times” leaderboard

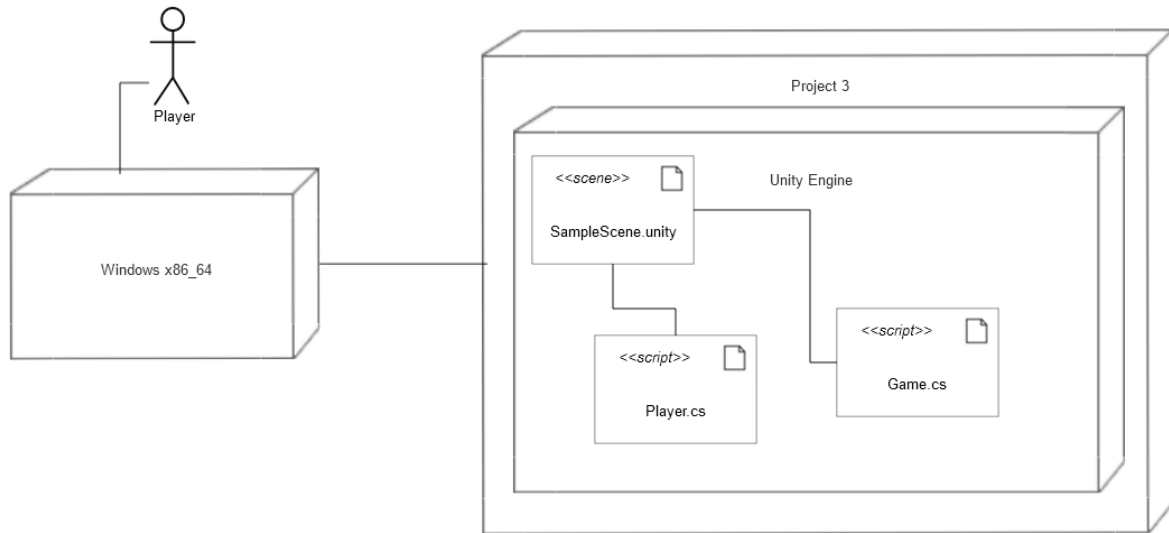
User Interface Model:

Note final implementation will look similar but will likely have different character models and platform designs



UML Diagrams:

Structural - Component Diagram



Behavioral - Case Diagram

