

## CS242 Project Proposal

### 1. Abstract

#### 1.1 Document Purpose:

This document is a final project proposal for CS242 Programming Studio at The University of Illinois at Urbana-Champaign. It is going to describe the program that I will create to complete this assignment. I am going to program a 2d side-scrolling game. I will specify the game design and timeline for coding the game.

1.2 Definition: Mario - a 2d side-scrolling action game with a plumber protagonist armed with a super sexy mustache that takes hallucinogenic mushrooms to grow himself.

1.3 Background/Motivation: Mario is a favorite game of mine from childhood (also to this day), motivating me to create this program.

### 2. Technical Specifications

2.1 Platform: Cross-platform

2.2 Programming Languages: Java

2.3 Coding Standard: <https://wiki.engr.illinois.edu/display/cs242sp14/Style+Conventions>

2.4 SDK: JDK 1.6

2.5 IDE: Eclipse

2.6 Interface: Eclipse Console/Java GUI Window

2.7 Other Technical Details: None

### 3. Functional Specifications

3.1 Affordances: This project will provide entertainment to fans of Mario

3.2 Features: This game will feature an experience of playing Mario as true to the original game as possible. You can play the original game as reference.

3.3 Scope: While the game should adhere to as many rules as possible given the timeframe, it will most likely be rough around the edges in the GUI than a currently released product.

3.4 Prospective Look/Mockup:



## Timeline

**Week 1:** Block/Level library organization.

Level generation through strings.

Outline the GUI

Sprite Sheets

**Week 2:** Implement basic user interaction (movement)

Non-static GUI

Write more tests for simple user actions/manual test plan

**Week 3:** Simple AI movement for enemies

Point system implemented/Collectibles

**Week 4:** Generate more levels

Get collisions between moving objects working

Program win-lose conditions (death, level endings)

Implement a few simple sprite sheet animations

Create a better model for gravity.

**Future Enhancements\Stretch goals:** Allow for multiple players.

Embed the game in a webpage.

Special moves.

Hidden areas/Green pipes

**Impossible Goals:** Yoshi