Stick To It - Games Production Group One Documentation

The documentation for the Stick to It created by Group One for the LSBU Games Production Module

Documentation by Connor R, Kamran Y, and Shaharin G

Basic Information

- **Roles**

  ❖ **Producer**
  - → Connor Robinson
  - → Kamran Yalchin

  ❖ **Programmers**
  - → Shaharin Gani Rashid
  - → Rafi Ali
  - → Connor Robinson

  ❖ **Designer**
  - → Kamran Yalchin

  ❖ **Artists**
  - → Connor Robinson
  - → Alaia Miah

  ❖ **Sound Designers**
  - → Sameer Al-mujahid
  - → Nour Elhabrouk

  ❖ **Misc**
  - → James
  - → Max
  - → Bright

Introduction

This document will contain the documentation for the Group 1 game titled "Stick to It". Sections of the document will start with a title in EB Garamond with subsections being written in **Lexend** and finally text being written in Comfortaa or accompanying font Montserrat.

The documentation will include everything from the 30th of January 2023 to the 5th of May 2023

Production Planning

This section details the production and planning side of the Game in which we detail initial ideas, as well as how we organised people into their roles, meetings, etc.

Initial Concepts

 To begin this project, we started with a meeting/brainstorming session in one of the classrooms. This was to first meet and get to know all of the designers, programmers, artists, and sound guys as well as to talk about the initial design ideas and concepts for the game which we wanted to create.

It began with us just throwing a few ideas around such as a JumpKing spinoff, an anti-gravity game, and a grappling ninja. We saw that all of these ideas had a similar theme of sticking so we decided that this could be a cool branch off of the 2D Platformer theme that was provided to us while still keeping within the specification. The brief gave us a set of guidelines which we needed to achieve to create a successful game. All of these guidelines allowed for a lot of wiggle room to work with while still applying enough restrictions to show a parity/relation between all the different games developed between groups.

Revising

The most important element of this project (despite the team working element) was to make it a scrolling platformer game. But unlike typical platformers, this one would be vertical. Adding this twist element set it apart from other games as well as the unique movement set.

To get a good idea of what we wanted to create, we created many mind maps and eventually settled on a good design layout for what we wanted to achieve within the game.

Main Design

- Basic layout
  - Play as a slime called Norman who was banished to Hell. He has to make his way up to heaven. Certain items can be found which give Norman powerups, allowing him to kill the enemies. Vertical scroller, 5 levels all within the same continuous shot. 5 rooms represent the 5 stages: Hell, Caves, Beanstalk, Space, and Heaven. Fixed Health (3 hearts).
  - (Optional) Kill God and steal his legs. Norman solves simple puzzles while being attacked by enemies. When the puzzle is complete, the lift on the side of the screen fixes and your demons can elevate to the next level. At the end of the game, God is trying to stop you from completing these puzzles, WHEN he fails, the demons in the lift will be released to Hell and God will be sucker-punched (By a buff demon called Bruce) to oblivion, leaving only his legs.
- Controls
  - The controls will give two options, either you use keyboard controls (wasd) to aim at where you want to go or you use your mouse to point and click the direction.

Norman will start going in that trajectory but will eventually have gravity take effect, meaning he won't always land exactly where you point.

- Enemies
  - Main Enemies (each level will have the same Enemies but retextured to match the theme). Enemies can be damaged using power-ups and traps.
    - A Melee enemy which will follow the player, attack close range, and can jump to reach the player.
    - A Projectile enemy which will shoot bullets intermittently, e.g. Will shoot a certain number of bullets and then pause to reload.
    - A Projectile enemy which will shoot homing missiles at the player, missiles will only travel a certain distance.
  - God.
    - A combination of the three main enemies. Will shoot projectiles and attack with unique abilities. Norman must use power-ups or traps to hurt God.
- Powerups
  - Temporary invulnerability
    - Collect 5 eggplants around the level to give you the ability to consume an enemy
- Secret items
  - 1 item per level (5 items total) found in secret areas in the level
- Stars System
  - 1st Star
    - Complete the game by reaching the top
  - 2nd Star
    - Kill God.
  - 3rd Star
    - Collect all secret items

Asset Roadmap
- Art
  - Norman
    - Idle textures
    - Jumping textures
    - Damage textures
  - Enemies
    - Melee
      - Idle textures
      - Walking textures
      - Jumping textures
      - Attacking textures
      - Damaged textures
      - Dying / dead textures
    - Projectile
      - Idle textures
      - Angry textures
      - Charge up textures
      - Shooting textures
      - Damaged textures
      - Dying / dead textures

- - - - Bullet texture
- - - Missile
- - - - Idle textures
- - - - Angry textures
- - - - Charge up textures
- - - - Shooting textures
- - - - Damaged textures
- - - - Dying / dead textures
- - - - Missile textures
- - - God
- - - - Idle
- - - - Angry
- - - - Walking
- - - - Charge up
- - - - Shooting
- - - - Melee attacking
- - - - Damaged
- - - - Dying / dead

- Sound / Music
  - Music
    - Same music composition, different sound to match each level:
      - Hell
      - Caves
      - Beanstalk
      - Space
      - Heaven

  - SFX
    - Undecided for now (Contact if you have any ideas.)
- Level Design
  - Environment
    - Fitting environments (Layout)
      - Hell
      - Caves
      - Beanstalk
      - Space
      - Heaven
    - Puzzle Planning
      - Togglable types
        - Buttons
          - 3 Normans activation radius
        - Pressure Pads
          - Enemies, Norman or objects can stand on to activate
        - Projectile sensor
          - When a projectile is shot and lands on the sensor, it can activate
        -
    - Obstacles

- Harmful Shit
  - Spikes
  - Slicing Blades
  - Immoveable Saw
  - Lasers
- Dynamic Objects
  - Moving Platforms
  - Big ol rock
  - Spinning ASStroids
  - Clouds (Acts like quicksand)

■ Finish
  - Boss Fight
    - Togglables
      - Will harm God
    - Health
      - God requires 5 hits to die
    - Attacks
      - God will use all of the attack methods used before to kill Norman by other enemies
    - Cutscene
      - Ending Dependent
        - Ending 1: Avoid God and get legs
        - Ending 2: Bruce Murder God {This is dependent on Norman completing the game and getting the elevator to heaven

Eventually we would cut out or revise some parts of this initial design to save time on development once we were more confident of the time which we had to implement, settling on a smaller but more doable game instead of aiming higher.
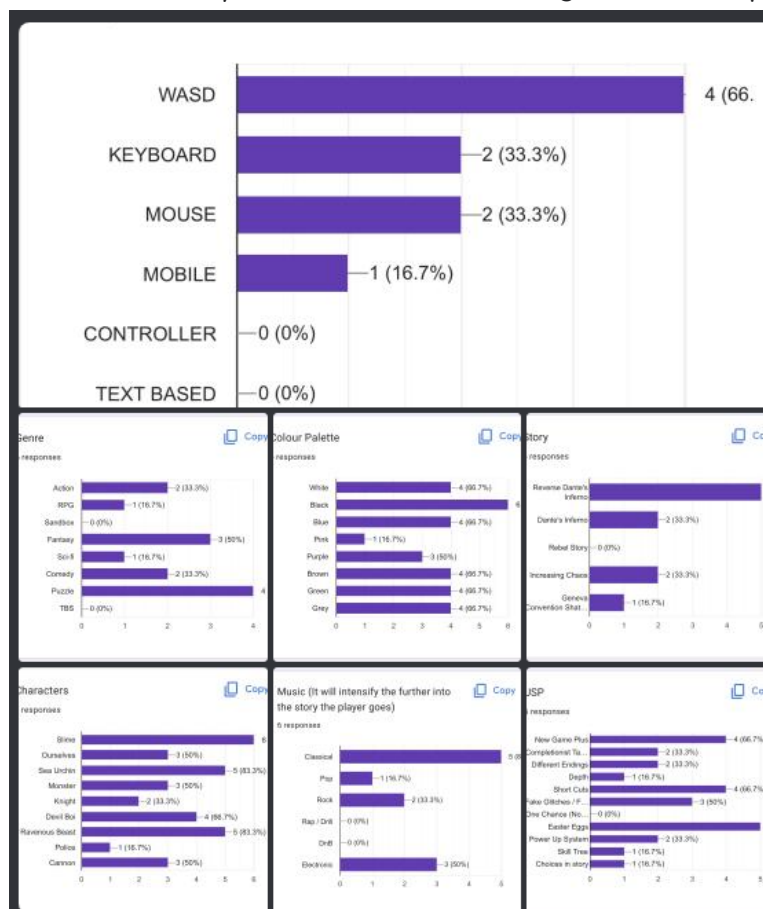
Progress

To ensure good progress would be made over the time of making this game, we would hold fairly regular in-person and online meetings (when all of us were unavailable in person) and would show our progress from each member as well as decide work distribution.
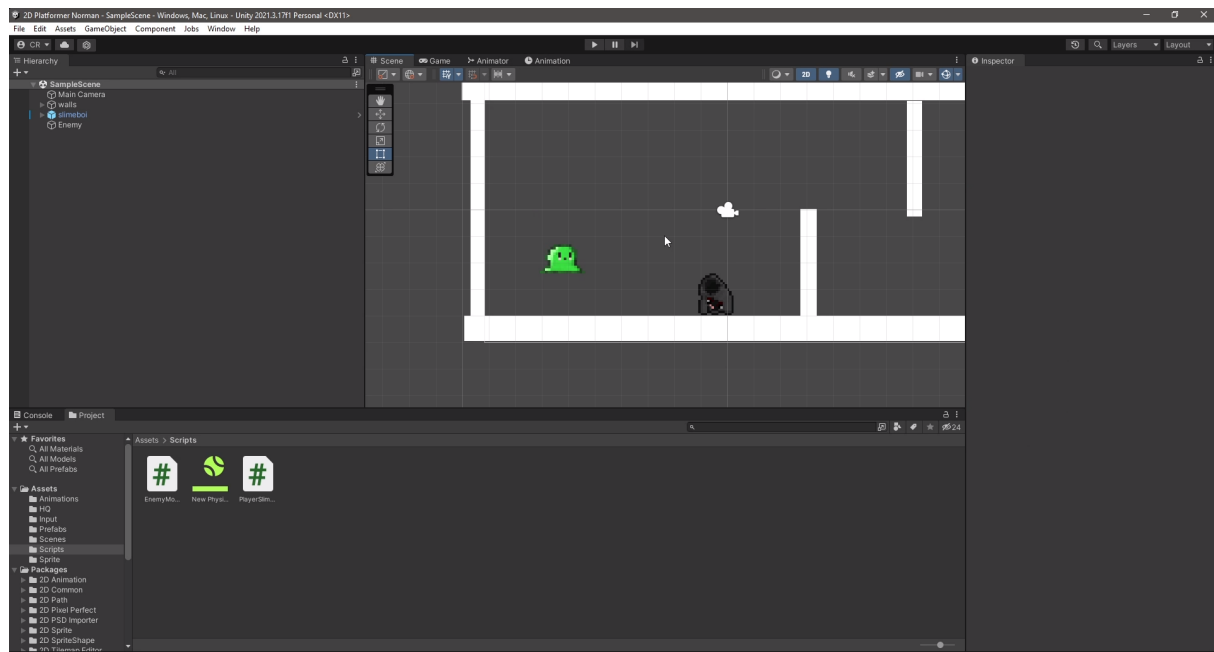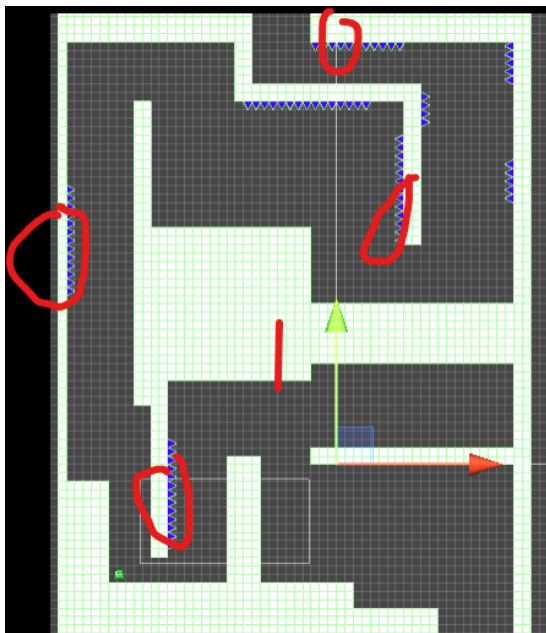
Game Development

 Game Development officially started with the creation of this tiny green blob later called Norman. With our idea for the game we still needed to poll on the mechanics, art and music style, as well as how the game would progress,

While this was being decided, we started a Unity project to get started on Norman's movement, the main appeal of the game.

At first, it started as a basic movement system but eventually adjusted into what would be recognisable today. Enemies were also developed within this stage with a projectile and melee enemy which would later be combined to create the main boss at the top of the game.
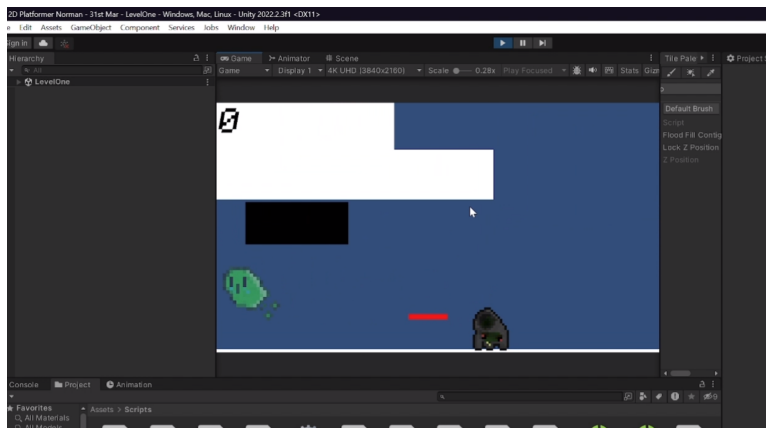

We would also begin work on the mapping and artwork side of the map, with early concepts showing an idea for spikes and ways to damage the player (this would instead be filled solely by enemies).

After much deliberation, we decided to make the maps and levels smaller, combining them all into one fluid level. This would allow the programmers to work on one scene instead of having to switch between multiple.

The addition of buttons was also added to start work on the lift mechanic.

In tandem with this work, a main menu, as well as a settings menu, and many art assets for different enemies and assets within the game.

All that now needed to be added was the tilemap and textures for the game (as well as a simple coin system).

During this time, Norman's movement was being constantly adjusted and refined with a huge overhaul being done to it towards the end of the project to make sure it acted correctly when placed with enemies and other colliders.

With a final refined tilemap being added, as well as a background for the game, it was finally looking complete. All it needed was the implementation of audio which was being gradually developed and refined over the 12-week period. With all the pieces being created, they just needed to be placed together which was done over the final 2 weeks of the project, to give time for debugging and any extra features which needed adding (such as textures or extra sounds).

Team Contributions

In this section, we discuss our team and their contributions to the team project as well as the link to the Trello we used.

Connor

Connor helped with most topics but was mainly the producer of the group. The things he did as the producer included; managing everyone's work, taking command of tasks and meetings, communicating with team members, managing the assets of the game and more.

As a programmer, he created most of the major movements of the game, created the enemy and non-hostile NPCs, and optimised the pause menu, lift script, coin collection system, as well as Health/Damage system. A lot of the art and sprites were also done by him.

He also helped to create some artwork for the game which includes Norman, the enemies, Ramkan and Dognoc, projectiles, the animations, the lift, the legs and buttons.

Finally, he assisted with some game design by making the current game layout, optimising the tileset, updating the tilemap and so on also for sound design as he optimised the assets and some of the sound effects for the game.

Kamran

Kamran focused on the game design of the game, creating the tilemap, splitting the tiles, making test tiles, designing several level layouts, planning the gameplay style, helping make the pause, start, settings menu, the UI and so on.

He also helped with the production of the game by scheduling meetings, making the Trello, gathering multiple people's opinions with votes, helping contact people, discussing with lecturers, etc.

Alaia

Alaia was the group's house artist, she helped create the tileset for each section, make the backgrounds for hell, cave, overground, trees and heaven, and created extra details for the overground and so forth.

Shaharin

Shaharin helped out with a lot of the programming tasks by creating the settings menu and optimising the movement, and the UI. The things that he did as a programmer include creating several objects using the sprites given by Connor.

Shaharin has also reached out to give ideas to be made, ideas like the playable main menu which in this game can be used as a tutorial in order to get the user to recognise the controls of the game.

Shaharin has also helped out in the making of several things for the game, these things include pages like the start menu, the settings page as well as the UI.

Sameer
Sameer is the lead sound designer who manages the sound effects for our game which ranged from the dynamic ambience, elevator sounds, the Kwitle, Norman, Demon Dog, Odist, Sludger and Tearvine enemy sounds and win-lose sound effects.

Rafi
Rafi was the lead programmer and helped create a multitude of lines of code, he has optimised the pause menu and helped produce the movement on Norman etc.

As a programmer, Rafi was responsible for making part of the pause menu, a main menu prototype. He has also made the following game elements:
- Coin collection
- Powerup
- Player health
- Player death
- Enemy Types:
  - Patroller
  - Shooter
  - Follower
- Button activation
- Button Collection
- Lift Activation
- Old script of Player movement

Nour
Nour helped out with the creation of the soundtrack of the game creating the game's main song, the song for hell, the song for the cave, the song for the overworld and for heaven too.

James
James helped optimise the code for the team with Rafi and Max

Links

These are the links to the assets used in the game and referred to in this document:

The Game Production Google Drive:
https://drive.google.com/drive/folders/1MjQlOvvtnd3lcPWZXqUEs4I9TsNoth0N?usp=share_link

Sound Design Drive (Sound FX):
https://drive.google.com/drive/folders/1sQ6gHy8eKzOkedbeZvo7_bFLha-idxEC?usp=sharing

Sound Design Drive (Music):
https://drive.google.com/drive/folders/1zkkCvXZOg64Kp-GxgOE2PikuMocXVWGx?usp=share_link

Game Design Drive:
https://drive.google.com/drive/folders/1BLv3TkhT7EwpE5drL5B5PFLRl1wKRjkO?usp=sharing

Trello:
https://trello.com/b/lSIRISBp/progress-board

Some sound effects contained samples from:
https://www.prosoundeffects.com/