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TEAM SOCK FIGHTER

Wednesday 8:30 am - 11:30 am

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Production Team Skill Set

| Skill | Eleanor Slade | Elias Taylor | Rubie Stannard |
|--------------|---------------|--------------|----------------|
| Coding | High | Medium | Medium |
| Programming | High | Medium | Medium |
| 2D Assets | Low | Low | High |
| 2D Animation | Low | Low | Medium |
| 3D Assets | Medium | Low | Medium |
| 3D Animation | Low | Low | Medium |
| Sound/Music | Low | Low | Medium |
| Management | High | High | High |
| Coordinating | Medium | High | High |

| Interest | Eleanor Slade | Elias Taylor | Rubie Stannard |
|--------------|---------------|--------------|----------------|
| Coding | High | High | Medium |
| Programming | High | High | Medium |
| 2D Assets | Low | Low | High |
| 2D Animation | Low | Low | Medium |
| 3D Assets | Low | Medium | Medium |
| 3D Animation | Low | Medium | Medium |
| Sound/Music | Low | Low | High |
| Management | Medium | High | High |
| Coordinating | Medium | High | High |

Production Project Tools

Communication and Coordination Tools

The top three communication platforms that can be used by our team to communicate are Slack, Discord, and our student email. We chose these three options because they provide a wide variety of communication methods that suit the various needs of the group at different times. Slack and Discord both provide instant messaging that is useful depending on the devices we are using, while emails provide slower but more consistent communication.

Some pros, cons, and quality of life considerations are listed below.

| Platform | Pros | Cons | Quality of Life |
|----------------------|---|---|---|
| Slack | <ul style="list-style-type: none">- We've been using it in the subject.- Good security.- Easy to share files. | <ul style="list-style-type: none">- Has a high CPU usage.- High battery consumption. | <ul style="list-style-type: none">- You can change the notification sound. |
| Discord | <ul style="list-style-type: none">- Groups can have video calls.- Navigation is simple.- Documents are easy to share. | <ul style="list-style-type: none">- It's not built for phones.- No organisation tools.- You can make too many channels. | <ul style="list-style-type: none">- Everyone seems to have Discord.- Built for gamers. |
| Student email | <ul style="list-style-type: none">- It's direct.- It's easy to navigate.- Sending smaller files is easy. | <ul style="list-style-type: none">- Slow time frame compared to instant messengers.- Less focus on user experience. | <ul style="list-style-type: none">- You can ensure you've tried all ways of contact.- Emails can be forwarded to each other. |

Trello Alternatives/Competitors

Two alternatives to Trello are TeamGantt and Notion. In contrast to Trello, Notion has a lot of similar features, such as task management and project tracking, whereas TeamGantt doesn't share any similarities as it seems to be mainly for tracking projects.

While TeamGantt provides helpful project planning tools, and Notion is useful for managing a large scale of project information, these tools are unsuitable for our needs in developing this game. Gantt charts are more useful for longer timeline management, while our project is quite short, and our game is quite simple, making the large-scale information storage of Notion unhelpful. For our purposes, Trello's boards are incredibly useful for managing the development process, highlighting the stages of development as they are being worked on.

Some key features and limitations for each platform have been listed below.

| Platform | Key Features | Limitations |
|------------------|---|--|
| TeamGantt | <ul style="list-style-type: none">- You can track the progress of a project with a Gantt chart timeline.- Free to use. | <ul style="list-style-type: none">- Allows users to have one project running at a time.- Each chart allows a maximum of three people. |

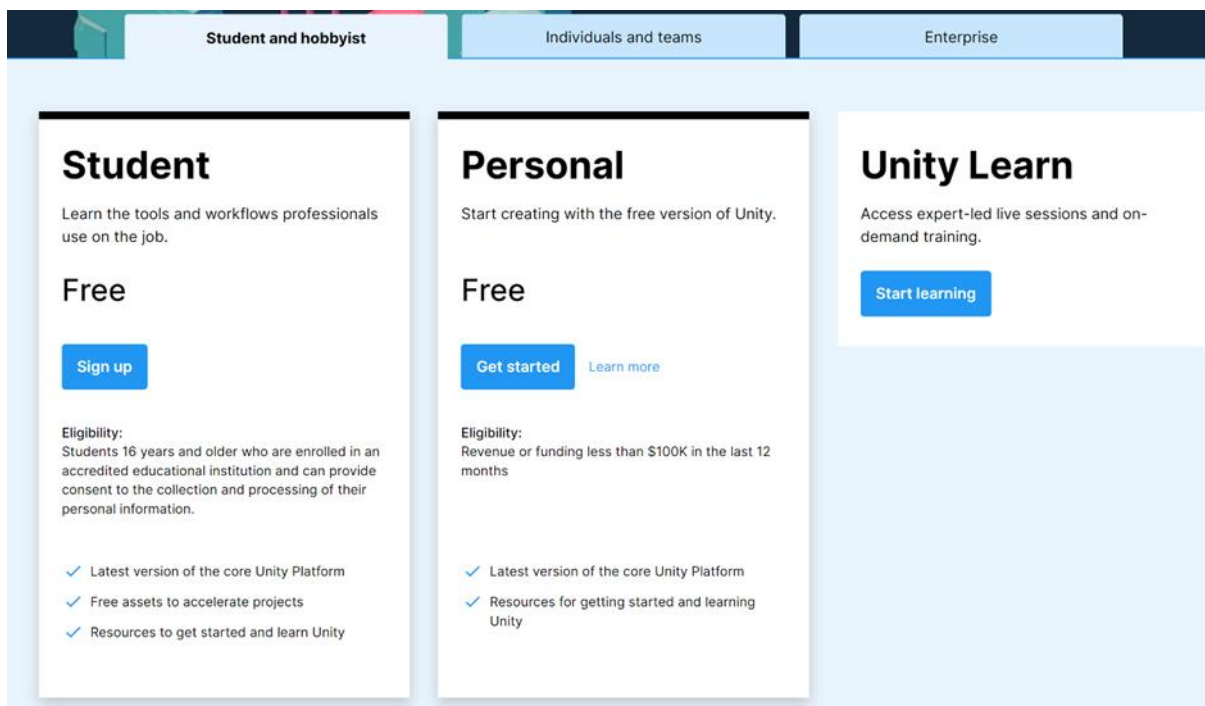
| | | |
|---------------|---|---|
| Notion | <ul style="list-style-type: none">- Task management.- Project tracking.- To do lists.- Wikipedia style information organisation. | <ul style="list-style-type: none">- Free, but with paid features.- Does not function on university computers |
|---------------|---|---|

“Version Control” (eg. git) Tools

The version control provider we’ll be using for our project is BitBucket, and the git client software being used will be SourceTree. The team has decided to use BitBucket and SourceTree because we already have some experience with these tools since they’ve been used for the past 6 weeks in this unit.

Alternative Game Engine Considerations

The game engine we plan to use to create this game is Unity as we have some experience since we’ve been using this for the unit. The game engine alternative we’d consider using would be Unreal Engine. Unreal Engine is currently an industry giant with a lot of powerful tools for game development, however most of those tools are for development of 3D games, which our game won’t be making use of. Like Unity at the student and personal level, Unreal Engine is free to use, but is more capable of handling the development of 2D games.



Some more information about Unity can be found at: <https://unity.com/pricing#plans-student-and-hobbyist>

Game Pitch

Sock Fighter

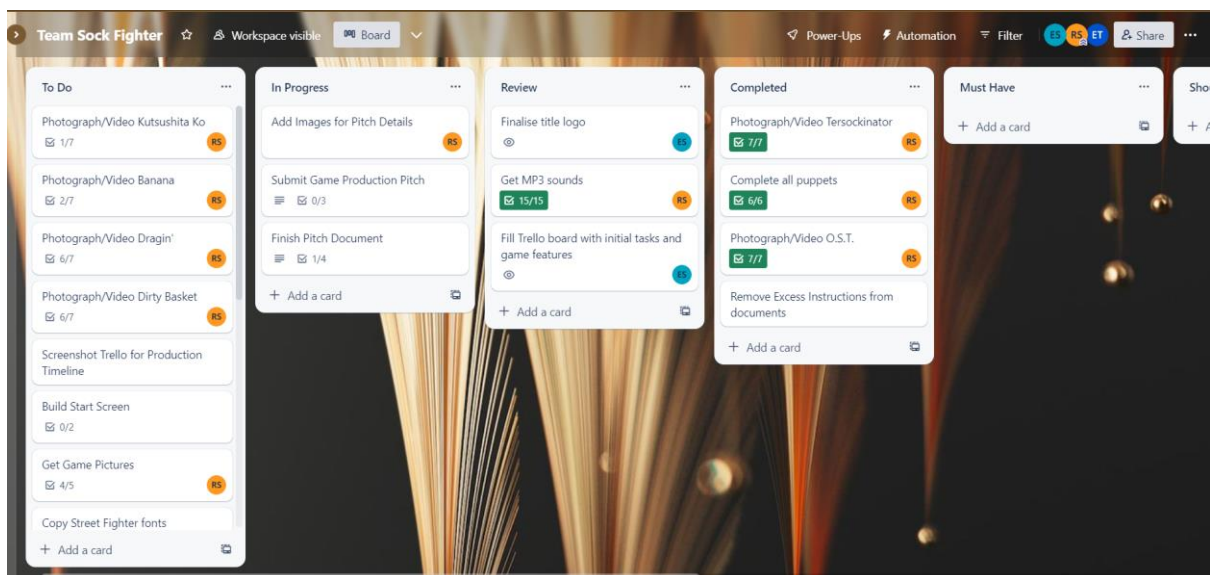
Our game, Sock Fighter, is based on fighting games such as *Street Fighter* and *Mortal Kombat*. Sock Fighter uses a light form of the fighting game genre of video games. While many modern forms of this game have open arenas to manoeuvre, Sock Fighter plays more like the board game *Rock 'Em Sock 'Em Robots*, with the characters relatively immobile, and having to carefully time their attacks and blocks. Each player selects a character avatar, here in the form of characterised sock puppets, and attempts to defeat their opponent. Each character has a different suite of attacks and abilities, so players can learn how best to play their favourite characters. For instance the character Dragin', a dragon sock puppet, has a dangerous fire breath they can unleash on their foes.

During combat the characters trade blows and take damage, represented by a health bar shown at the top of the screen. The screen also shows a power bar, which fills up as the character successfully lands blows against their enemy or successfully blocks enemy attacks and once filled allows them to unleash a powerful special attack unique to each sock puppet. The lose state for Sock Fighter is a character's health reaching 0 first, who will then be treated to the winner's winning caption.



Production Timeline

1. Create sock puppets
2. Create videos of each sock puppet's various 'animations'
3. Convert sock puppet videos into game sprites
4. Create UI elements
5. Programming
 - a. UI navigation
 - b. combat mechanics
 - i. health
 - ii. attacking
 - iii. defeat mechanics
 1. winning caption reveal
 2. victory music
 3. game reset to character selection
 - iv. timer implementation
 1. on timeout effects eg. compare health to determine winner/ties
 - v. blocking
 - vi. special power use
 - vii. special power bar increase



Game Features - Characters

Dirty Basket

- Dirt marks
- Beige sock
- Bad breath weapon

| Move | Key Bind | Sound |
|---|---------------|----------------------------------|
| Punch | A/Left arrow | punch.mp3 |
| Kick | S/Down arrow | kick.mp3 |
| Block | D/Right arrow | block.mp3 |
| Special move: Stink breath (green particles) | W/Up arrow | dirty_basket_special_attack.mp3 |
| Winning caption: Does anyone else smell that? | | dirty_basket_winning_caption.mp3 |

Kutsushita Ko

- Yellow buns
- Fake boobas
- White sock
- Angular eyes?

| Move | Key Bind | Sound |
|---|---------------|-----------------------------------|
| Punch | A/Left arrow | punch.mp3 |
| Kick | S/Down arrow | kick.mp3 |
| Block | D/Right arrow | block.mp3 |
| Special move: Booba bounce (chest thrust) | W/Up arrow | kutsushita_ko_special_attack.mp3 |
| Winning caption: Nyaaaa! | | kutsushita_ko_winning_caption.mp3 |

O.S.T. (Odd Sock Terrestrial)

- Green pipe cleaner antennas
- Grey sock
- Three eyes
- Blue pom poms on top of the antennas

| Move | Key Bind | Sound |
|---|---------------|-------------------------|
| Punch | A/Left arrow | punch.mp3 |
| Kick | S/Down arrow | kick.mp3 |
| Block | D/Right arrow | block.mp3 |
| Special move: Très lasers (three lasers shoot) | W/Up arrow | ost_special_move.mp3 |
| Winning caption: Anally probed! | | ost_winning_caption.mp3 |

Dragin'

- Wings
- Horns
- Red sock
- Dragon fins
- Fire breathing particle effect

| Move | Key Bind | Sound |
|---|---------------|----------------------------|
| Punch | A/Left arrow | punch.mp3 |
| Kick | S/Down arrow | kick.mp3 |
| Block | D/Right arrow | block.mp3 |
| Special move: Flame roar (open mouth roar) | W/Up arrow | dragin_special_move.mp3 |
| Winning caption: You're a girl dragon. | | dragin_winning_caption.mp3 |

Banana

- Banana hat
- Banana wings
- Beige sock

| Move | Key Bind | Sound |
|-------|--------------|-----------|
| Punch | A/Left arrow | punch.mp3 |
| Kick | S/Down arrow | kick.mp3 |

| | | |
|--|----------------------------|-------------------------|
| Block | D/Right arrow | block.mp3 |
| Special move: Squish (banana slides down) | W/Up arrow | banana_special_move.mp3 |
| Winning caption: Slip on this! | banana_winning_caption.mp3 | |

Tersockinator

- One red eye
- Half metal face
- Beige sock
- Brown hair
- Black felt jacket

| Move | Key Bind | Sound |
|--|-----------------------------------|------------------------------------|
| Punch | A/Left arrow | punch.mp3 |
| Kick | S/Down arrow | kick.mp3 |
| Block | D/Right arrow | block.mp3 |
| Special move: Second Amendment (gun shows up) | W/Up arrow | tersockinator_special_move. mp3 |
| Winning caption: Hasta la vista. | tersockinator_winning_caption.mp3 | |

Game Features - UI

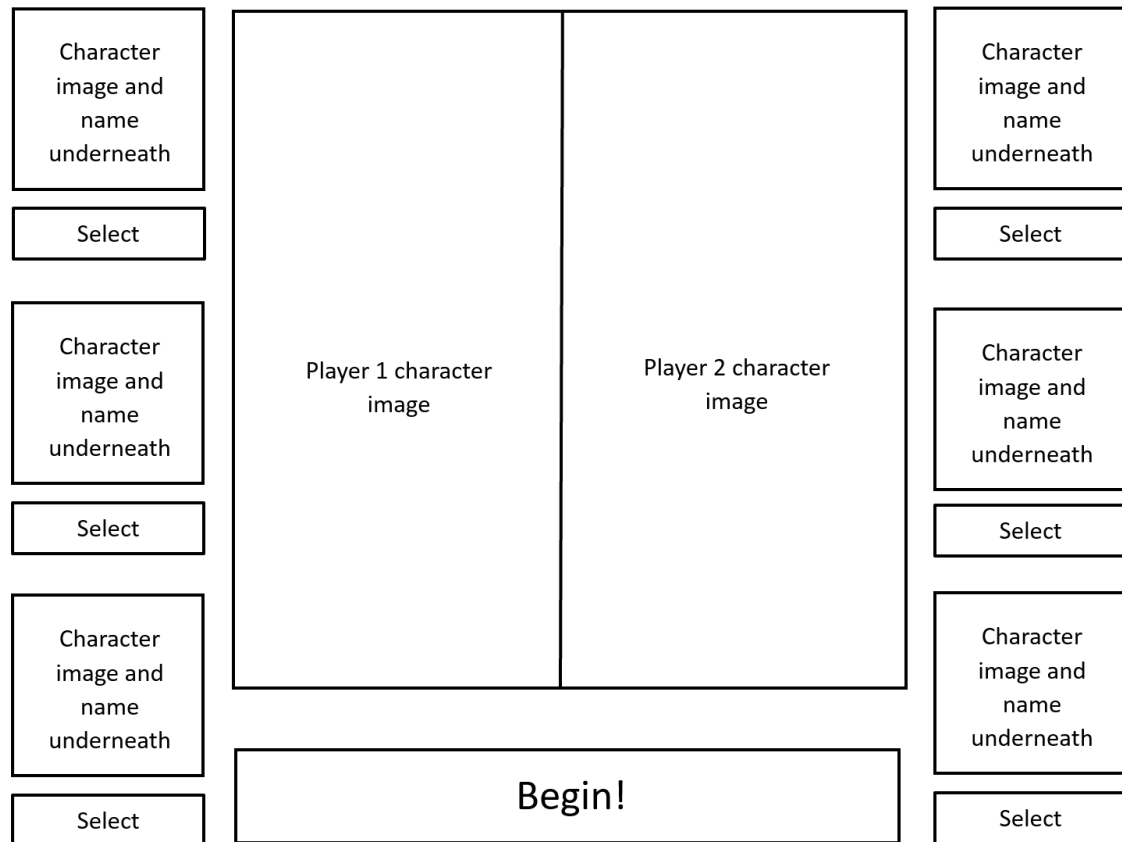
Main menu screen

- Start game button
 - To Character Selection screen
- Exit game button

Character Selection screen

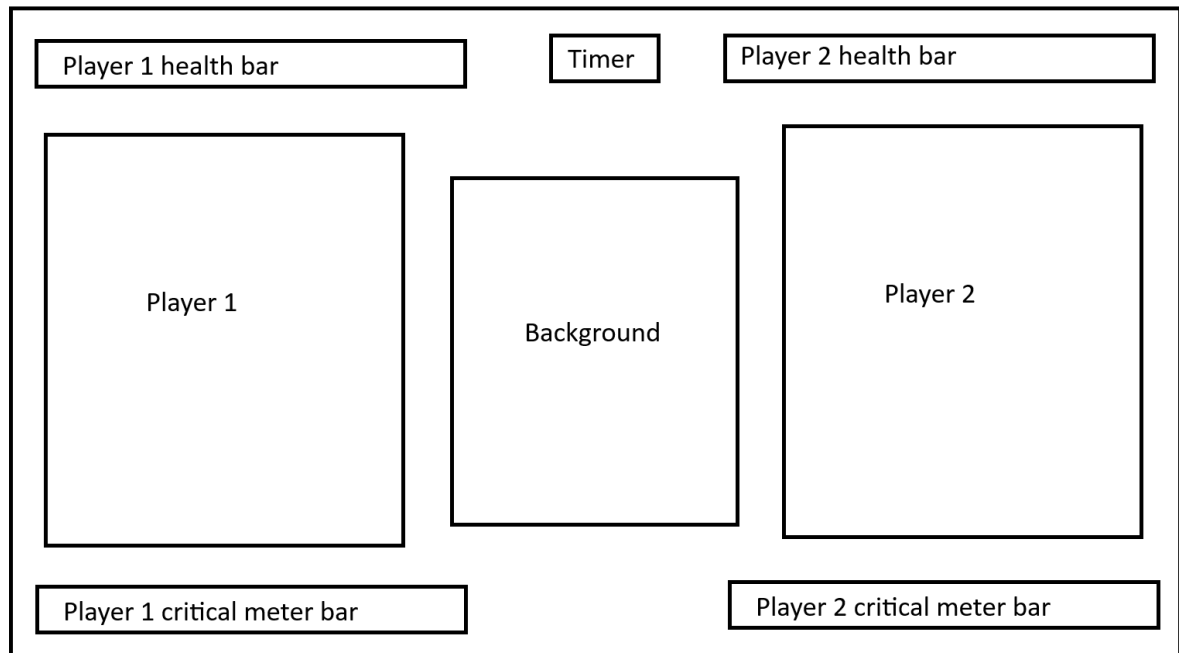
- "Choose your character"
- Display of 'profile pic' of each character
- Move through options
 - WASD for player 1
 - Arrows for player 2
 - Select profile (attack 1 btn)
 - [alt: players pick one at a time]
- Cancel button
 - De-selects all selected characters
 - IF no selected characters:

- Change text to 'Back'
 - To Main Menu screen
- Start Game button
 - Saves selected characters
 - To Game Play screen



Game Play screen

- Load one of a number of random background images
- Set initial character values (health, power bars, etc.)
- Spawn chosen player characters in control of selected player
- 60 second timer
 - A lot of these games have timers to get rid of the potential for games getting bogged down
 - If timer gets to 0, player with most health wins round
 - Has the ability to do the whole 'best of 3' schtick
- Display in-game UI
 - Character name
 - Health bar
 - Power bar? (for spesh attack)
- *Players fight*
 - *Gameplay Loop*



Game Features - Controls

These are universal regardless of played character, however there are Player 1 and Player 2 alternatives for each set of controls.

just popping in some placeholder keys for the controls, please comment any suggested edits for them

| Move | Controls |
|------------------------------------|-----------------|
| Attack 1 (Punch) | A Left-Arrow |
| Attack 2 (Kick) | S Down-Arrow |
| Block | D Right-Arrow |
| Special move | W Up-Arrow |
| Player character selection | Space Enter |
| Scroll through character selection | |

Game Features - Combat

- Winning Caption

Team Sock Fighter Information

Eleanor Slade

Coded the character selection scene
Coded the start scene
Coded the game over scene
Coded and implemented menu navigation

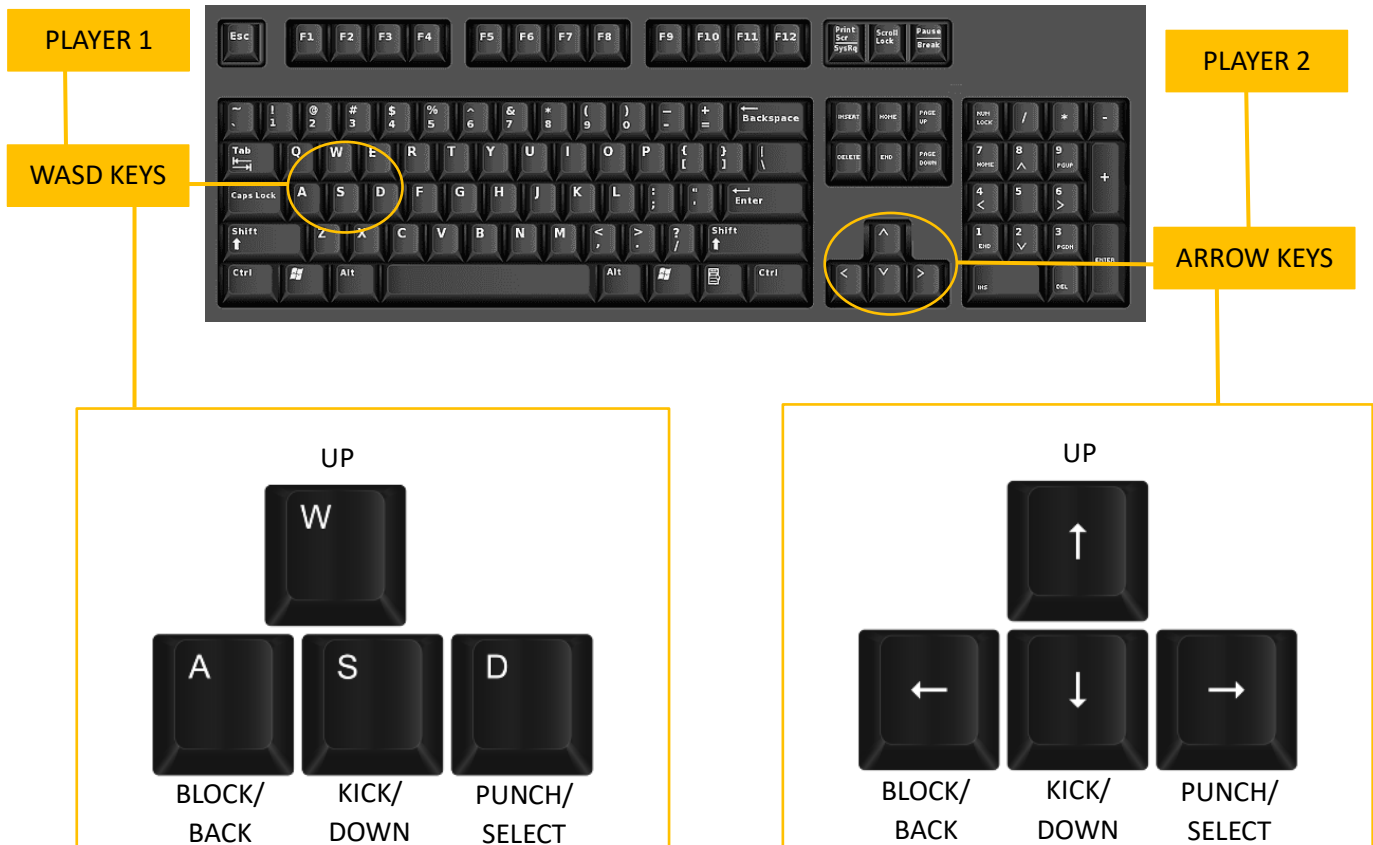
Rubie Stannard

Made the sock puppets
Recorded videos of the sock puppets
Sourced the background images
Sourced, wrote, and styled the text
Sourced and converted the sound effects

Elias Taylor

Coded and implemented the character controls
Coded the combat mechanisms
Coded the gameplay loop
Coded the health bar
Implemented the audio
Implemented the character animation

Game Controls



List of Tools and Services

SourceTree and Bitbucket were used to share the Unity project.

Google Drive was used to share and store the documents, images, MP3's, and anything related to the project.

Discord was used to communicate with the team members when changes were made to the project and meetings were organised.

Photoshop was used to style the texts, resize all of the images, make the sock picture backgrounds transparent, make the button icons, and make the health bars.

Trello was used for planning the project tasks and assigning them to members.

Unity was used as the platform of creation.

Visual Studio Code was used to code the in-game scripts.

List of Resources

The DaFont font "SSF4 Abuket" by ArcJavier was used for the character names, winning captions, K.O. and Fight text: <https://www.dafont.com/ssf4-abuket.font>

The DaFont font "Martyric" by Mans Greback was used for the Sock Fighter title: <https://www.dafont.com/martyric.font?text=Sock+Fighter&psize=l>

The Flickr image "Melbourne Hosier Lane Street Art" by capture the lens was used for Background 1: <https://www.flickr.com/photos/capturethelens/16881799565>

The Wikipedia image "Ringwood East Railway Station" by Alex1991 was used for Background 3: https://en.wikipedia.org/wiki/Ringwood_East_railway_station

The Wallpaper* image "Eastland Shopping Centre" was used for Background 4: <https://www.wallpaper.com/architecture/community-and-connectivity-at-the-heart-of-eastland-shopping-centre-in-melbourne>

The YouTube video "Super Punch (Sound Effect)" by BlueSpeedy was used for the punch sound effect: <https://www.youtube.com/watch?v=GZCERKiRBiQ>

The YouTube video "Kick - Free Sound Effect" by Free Sound Effects was used for the kick sound effect: <https://www.youtube.com/watch?v=HWS6xU6eHgl>

The YouTube video "Elden Ring | Guard Counter [Sound Effect]" by Bond Factory was used for the block sound effect: <https://www.youtube.com/watch?v=TUd4uLSavDU&pp=ygUdZWxkZW4gcmluZyBibG9jayBzb3VuZCBlZmZlY3Q%3D>

The YouTube video "ULTRA Street Fighter IV - Main Menu Theme" by SG – SaitoGaming was used for the fight music: <https://www.youtube.com/watch?v=e83BmHq93vU&t=14s>

The YouTube video "Round 1 FIGHT!" by Street Fighter II Feb 1991 was used for the fight start sound effect: <https://www.youtube.com/watch?v=v993ci5Sm5Q>

The YouTube video "Results Screen / Victory Music -- Street Fighter IV Soundtrack" by GekkouKitsune was used for the main menu music: <https://www.youtube.com/watch?v=v8Oa9UIZzME>