SOFTWARE ENGINEERING

Final Presentation!!

Product: CS512 Funtime

(Placeholder name turned official)

Team Players:

Justin Stachurski • Javier Crespo-Law • Mian Danyal • Kelly Powell • Pradeepthi Rangineni

Product Owner (I)	Scrum Master (I)	Product Owner (II)	Scrum Master (IV)	Product Owner (IV)
Scrum Master (II)	Product Owner (III)	Scrum Master (III)		

Features:

- Video game written in C++ using the Raylib library
- State-of-the-art menu systems
- Run through exciting levels, grab coins, avoid enemies that wake up when you get close
- High-resolution graphics
- Multiple premade levels
- A semi-featured level editor that allows YOU to create your own game with quick and easy testing

Scrum Tactics

Sprint Events

• Planning meetings: Throw together some ideas quickly so we all have something to work on

• Daily-ish meetings, sometimes in-class sometimes through group chat

• Sprint Review: show-off whatever we had done to the class

• Retrospectives handled by whoever was tasked with creating the sprint markdowns

Backlog Maintenance

- Always created a backlog of features at the start of the sprint
- At best, keeping the backlog in a shared spreadsheet
- At worst, creating it directly in the markdown file and recalling dates

From “Hello World” to “Game Over”

- **Sprint 1**:
  - CMake + raylib set up
  - Github branches made
  - Window rendered
  - Player animation and movement with WASD.
  - Chat (discontinued)
- **Sprint 2**:
  - First level/map layout
  - Coins and basic scoring
  - Simple level select.
  - Main menu without integration
- **Sprint 3**:
  - Enemies now chase the player when close
  - Built-in level editor!
  - Main menu integrated
  - Full working game with everyone's code merged properly.
- **Sprint 4**:
  - Bug fixes and cleanup
  - QOL changes like background, enemy animations and sounds
  - README + build instructions

What Worked and What Caused Pain

What Worked

- We were able to adjust scope each sprint and finish with something playable
- Accomplished many of our planned features
- Raylib was easy to understand and use for unfamiliar team members
- When communication was consistent it worked well

What Hurt

- The sudden nature of the project hurt our motivation
- Our schedules didn't align well enough to meet in-person outside of class
- Project was low priority in lieu of other responsibilities

At the end of the first sprint, we had to pivot from a networked multiplayer game to a singleplayer game.

Leveling Up as a Team

- Scrum works best when it's possible to work in-person
- Keep the backlog small, clear, and honest about scope
- Don't procrastinate on failure, be prepared to learn
- Reserve time each sprint for refactor and cleanup, not just new features
- Prefer many small pushes over one huge late-night merge

And... what we all learned or something!

And now onto our exciting demonstration