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HUGO NOVELIST

SCIENCE FICTION
BOOK CLUB SELECTION

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SERPENT'S REACH



NAU
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School of Informatics,
Computing, and
Cyber Systems

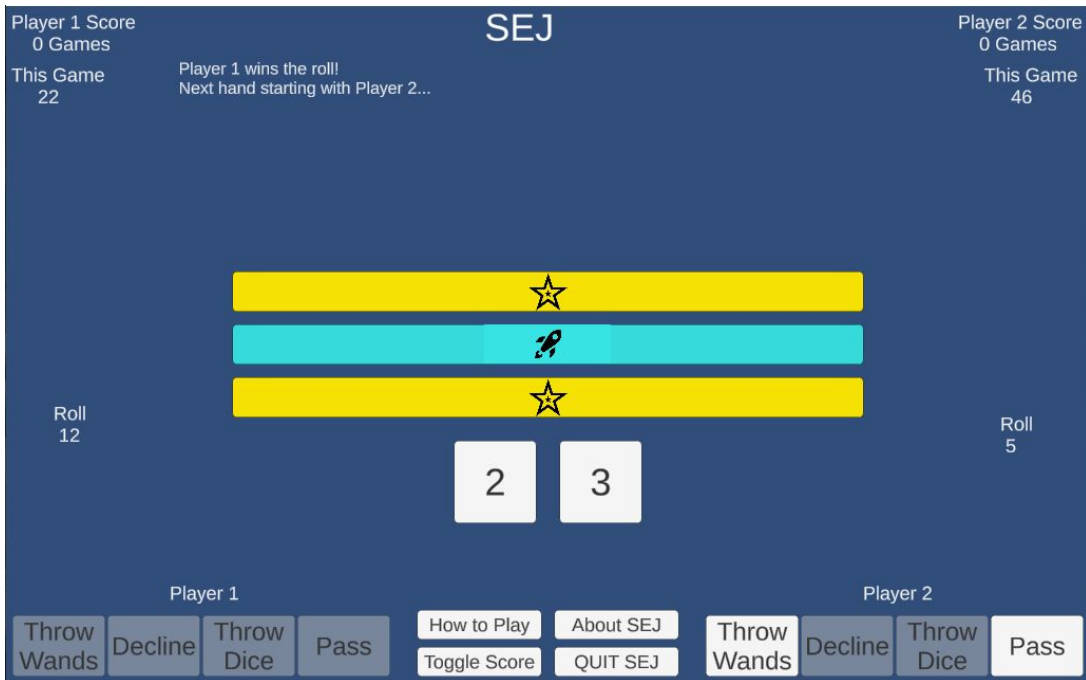
SS

Sej Online

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Mentor: Italo Santos

Problem



- UI lacks critical game information
- No persistent scorekeeping
- Only supports local multiplayer

Our Solution



1. Implement
Sej Rules

2. Improve
Graphics and
UI

3. Network Connected
Two-Player Mode

4. User Accounts w/
Cumulative Score
Keeping

1.

Implement Sej Rules

- In-game mechanics: dice rolling, wand passing, declining a turn
- Point system
- Key information such as whose turn it is, who is starting the next hand



2.

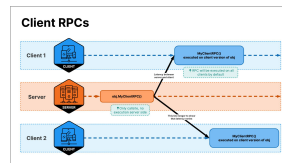
Improve Graphics and UI

- Animations for in-game actions
- Improved UI via Unity assets
- Additional artwork and graphics/effects

3.

Network Connected Two-Player Mode

- Implemented through Unity Netcode
- Netcode allows for multiplayer games that can be search and played over servers



4.

User Accounts w/ Cumulative Score Keeping

- SQLite database integration for user and account information
- Other information like cumulative score keeping will also stored

Functional Requirements



MVP

- Sej Rules Implemented
- Network Connected two-player mode
- Simple but attractive UI
- Persistent cumulative score-keeping for opponents

Stretch Goals

- Tournament Play
- Side-by-side play
- AI opponents
- 3D game graphics & animation
- Audio
- Multi-platform

Non-Functional Requirements



Performance

- Engine Capabilities
- Network Search times
- Security

Environmental

- Legality
- Accessibility

Risks Identified

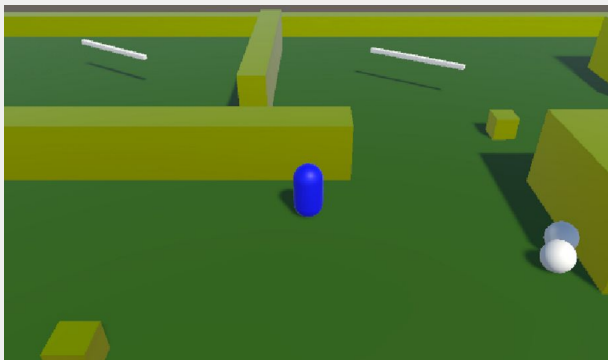
- No Internet Connection
- Game Server Goes Down
- Corruption of Database
- Support/Compatibility of Utilized Resources
- Users with Insufficient Hardware
- Possible Seizures for People with Epilepsy



PHOTOSENSITIVITY WARNING

A small percentage of people may experience seizures when exposed to certain lights, patterns or images, even with no history of epilepsy or seizures.

PRESS ANY BUTTON TO START



Unity



SQLite

Project Feasibility

- Game engines allow for small scale teams to develop large scale products, rapidly
- Simple database solutions to store user data integrated with engine
- Networking built in natively with Netcode

Plan for development



Sej Online Timeline



Summary



- A version of Sej that everyone wants to play
- A version of Sej that everyone can play
- A version of Sej that everyone enjoys playing