Final Project: Ruins of Ragnir   
Project Writeup

## 1. Project Name

Ruins of Ragnir Game Alpha Build

## 2. Group Name

Makers of RoR

## 3. Date

August 07, 2025

## 4. Project Choice

The project was chosen to force me to work on a tabletop game, Ruins of Ragnir, that I have wanted to make for a long time. This combines network programming, data modeling, and graphical rendering.

## 5. Design Decisions

A client-server architecture was selected to allow two players to connect and play remotely. Game state is managed on the server, with clients receiving state updates and rendering them. I tried to make the phases work properly, but fell short of my goal.

## 6. Third-Party Libraries

* Pygame: Used for rendering the game board and handling user input in a cross-platform window.
* python-docx: Only for generating documentation, not required for gameplay.
* pickle: Standard library for serializing game state between server and client.

## 7. Data Structures

Cards are modeled as Python dataclasses, each loaded from JSON files. The board state uses dictionaries mapping coordinate tuples to tile objects. Player hands and decks are simple lists for ordered draw and discard operations.

## 8. Challenges

* Working solo.
* Ensuring consistent serialization of complex game state with connected JSON data.
* Managing turn-based logic and synchronous updates between two clients.