

P02: Makers Makin' It, Act I

Conquest by RightMouseButtonS

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Idea Summary

A simplified version of Risk involving 2-6 players. Players start out with a set number of armies and take turns placing their armies across 42 territories on a world map until all armies have been placed. At the start of each turn, each player places additional armies (territory / 3 rounded down but at least 3 armies) and can choose to attack or move troops across adjacent/connected owned territories. When attacking, the attacker can roll 1, 2, or 3 die while the defender rolls up to 2. The highest die is chosen and a lower roll (defender wins ties) results in a loss of one army each (rolling 2 lower dice means losing 2 armies). The attack continues when the attacker has 1 army left or chooses to stop, or when the defender loses all of their armies in that occupied territory, after which the attacker takes over that territory. During each turn, players can earn bonus armies if they have continent bonuses, earned by owning all territories in a continent. The game ends when there is one player standing.

Program Components

- HTML
 - menu.html
 - Where user can choose how many players and read the rules
 - The starting page
 - Transitions to the game page with play/start button
 - User can continue a game or start a new one
 - game.html
 - Loads existing game or start new game
 - Main game interface
 - Handles user interactions
 - Interactable map with 42 separate territories
 - login.html
 - Allows users to log in
 - Checks login info from database
 - register.html
 - Allows new users to create accounts
 - Adds new login info to database
 - profile.html
 - Shows user stats
- DBs
 - territories.db (will contain info like its connected territories and continent group)

- games.db (will contain the current state of the game)
 - updates after every turn
 - will contain data such as how many armies each player has and how many armies are on each territory (and whose).
- users.db (user accounts info)
- Python Files
 - __init__.py
 - Runs flask
 - Calls helper functions from other python files
 - The one that runs the games during each turn
 - game.py
 - Contains helper functions used in __init__.py including:
 - setup
 - availableMoves
 - Creates and utilizes dbs
- JS
 - game.js
 - load
 - attack
 - move
- Static Folder
 - map.png
 - army.png
 - dice.png

Database Organization

territories

INTEGER	id	PK NOT NULL
TEXT	name	NOT NULL
TEXT	connected	NOT NULL
TEXT	group	NOT NULL

games

INTEGER	id	PK NOT NULL
INTEGER	armies	NOT NULL

TEXT	territories	NOT NULL
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users

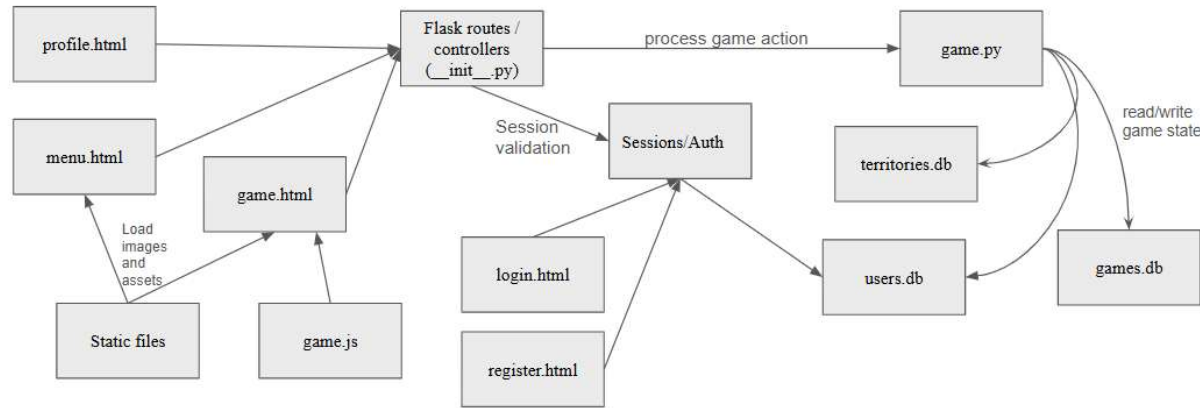
TEXT	username	PK NOT NULL
TEXT	password	NOT NULL
INTEGER	games	NOT NULL

(other stats TBD)

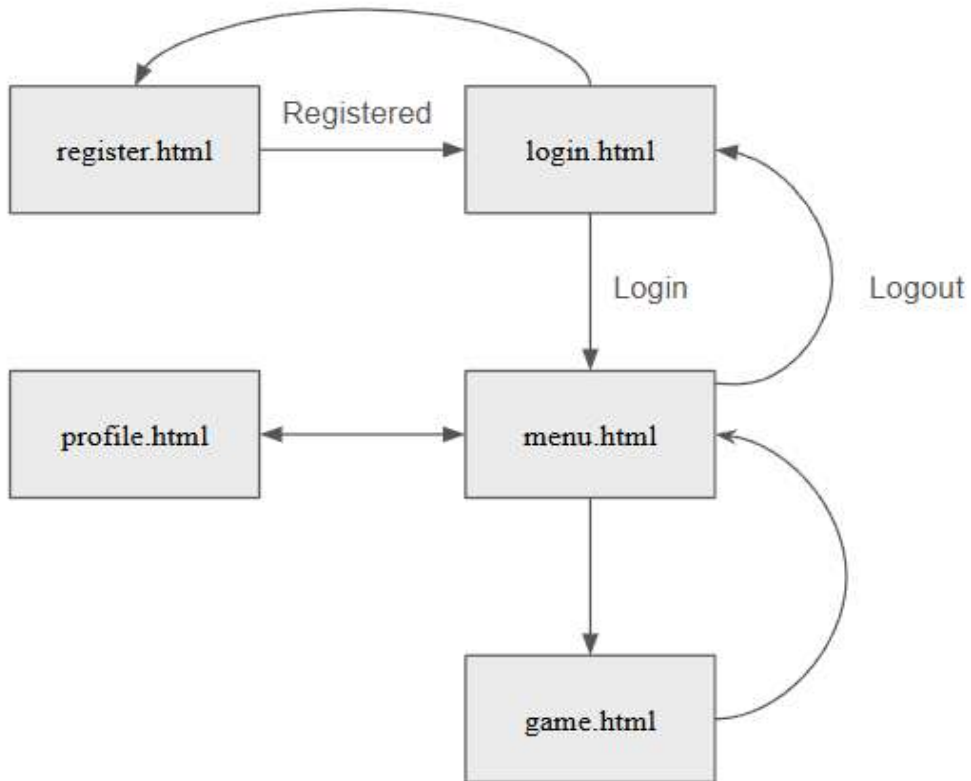
Chosen FEF: Bootstrap

We will be using Bootstrap because it comes with buttons and modals, which will be useful for making an interactive game page. It is easier to learn and utilize than Tailwind and foundations, meaning more time to focus on game logic and functionality.

Component Map



Site Map



Task Breakdown

<u>Task</u>	Devos (subject to change)	Completion Status
FEF	Robert	NS
Flask	Mottaqi	IP
Database	Sean	IP
Piece Movement	Sean	NS
Attacking	Bogdan	NS
Game setup	Bogdan	IP
Profiles/Logging in	Mottaqi	IP