Project Title: Warcrimes.io

Team Members: Michal Bodzianowski, Gunnar Enserro,
Jacob Klus, Tommy Kopala, Isaac Vance

Project Description:

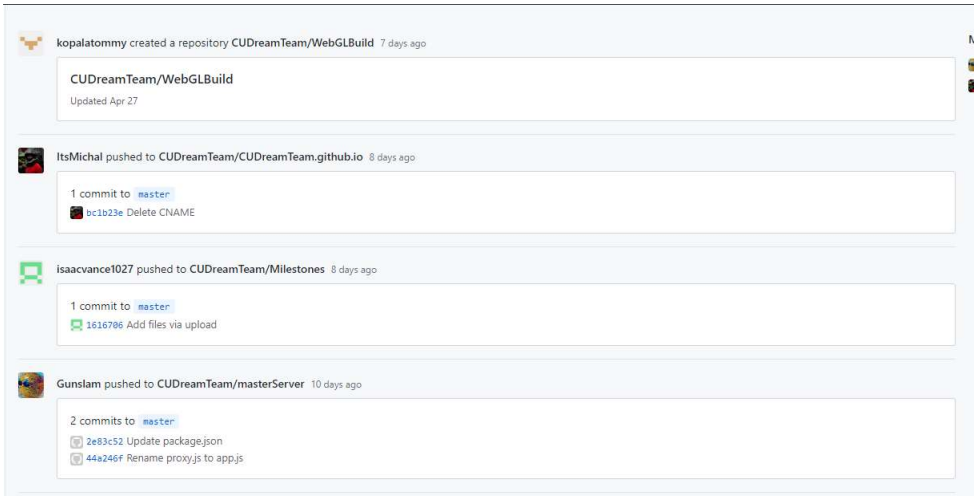
WarCrimes.io is a turn-based strategy MMO in which opponents from around the world can compete to dominate a randomly generated map and become the master of their own empire in the Warcrimes.io world. Players can access our WebGl hosted game at our website: warcrimes.io where they can choose their own username and join a unique game server to battle it out with whomever they choose. Each player starts with a capital and a builder at a randomly assigned location. The player is then able to build more buildings and recruit new troops to conquer their enemies. All units and buildings have a specific number of actions to use every round. The game is finished when only one player remains. The backend aspect of the game was split up into two servers, the one server was replicated multiple times. This was the primary game server. The orchestrator of these servers was the master server which would identify the game servers and list their location and port forwarding to get to them. This would use a Redis database to remember the name and information of the server. Just in case the master server restarts. Everything existed on a heartbeat where if one server goes down it will be noticeable after a little while.

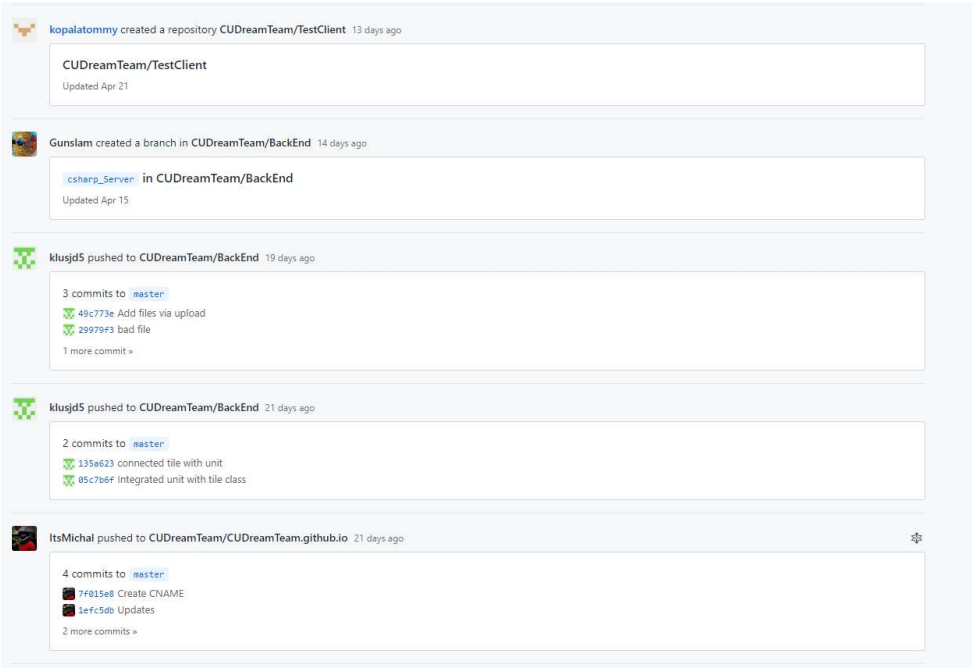
Project Tracker: We started out using Trello/kanban but ultimately keep on track by communicating through discord. We decided that our Trello/kanban could be more useful for a larger project, but since most of our work was contained within Unity, we were able to track it simply by keeping the code in our VCS up to date.

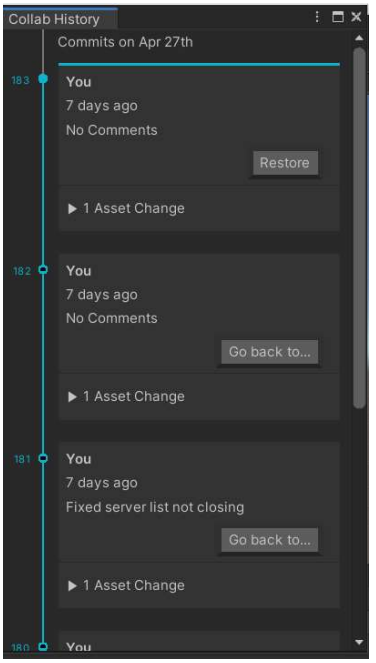
VCS: https://github.com/CUDreamTeam
<need to make sure github has: source code, test cases, Readme.md, and this document as a pdf>

Contributions: Need:

- Screenshot of each member's contributions (i.e. "commits") throughout the semester from Git
- A brief from each team member about their contributions
    - This should include the technologies worked on
    - Features that have been contributed to







Gunnar:
I took on the challenge of infrastructure and networking. I went ahead and built the integration between front and back end. I containerized the applications and put them into a compose file that allows us to throw it up anywhere that has docker.

Isaac:
I helped to manage the scope of the project during initial meetings, helped with some of the initial ideas for backend development, kept track of project milestone deadlines and submissions, helped to organize the final presentation, and took part in discussions about server deployment. I also wrote and recorded the soundtrack for our game.

Jacob:
I helped with the initial server backend coding by coding classes to be used by the game in C++. I also helped manage the project milestones and helped organize the final presentation and made sure we were on top of our project milestone deadlines.

Tommy:
I mainly worked on the game. I created most of the game logic such as combat and movement. I also helped create the communication between the game server and game client. I worked with unity, github and discord.

Michal:
I developed the UI/UX graphic designs for both the game and the website, and I developed the orchestrating master server to control the other servers that sessions ran on.

Deployment: Standalone-Executable
Run executable in the provided folder to run the game. The game works best on windows.

https://drive.google.com/drive/folders/1jguvJ9sHJk6ZlRcx_CHCxyn6MS8gwx90?usp=sharing
Preferred run environment on Windows.