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Project Phase 1

Team Name: Fire Mongooses

Our project consists of making an online game based on the popular card game known as DC Comics deck building. The main goal for our project is to eliminate the mundane tasks that come with playing DC Comics deck building such as keeping score and keeping track of cards. In addition, we hope to implement an ability to connect to an online server so that players can interact with each other from separate locations.

The cognitive issues that this implementation will address include an increase in robustness, and enabling real-time reactions. When this game is played using the actual cards and game board, it is very easy to miss a rule or function within the game mechanics. It also increases a margin for error where players may miss a scored point or a card effect. Essentially, our project should increase the ease of access, convenience, and functionality of in-person gameplay and gameplay online.

A rough timeline for our project is we hope to have an initial system design and mock-up done by the first week of March. Throughout March, we hope to have the game mechanics and card effects completely functional. By April, we hope that the ability to connect to a server and have online gameplay will be finished. Finally, by the first week of May, we hope that all features and gameplay will be finished.

The roles of our project will be divided as follows: Josh Privett and Trey Whitaker will work on the Game Mechanics. Harry Zhang and Taylor Hunt will implement the Server Connection/Online play. Finally, Nick Hanemman and Thomas Mulholland will work on Card Effects. In addition, all group members will work together to make the most robust and “easy-to-use” user interface.

The software we will use to implement our project is called Unity, developed by Unity Technologies. Unity is a type of software specifically designed for game development. Unity is compatible with a variety of APIs including, but not limited to, Direct3D on Windows and Xbox 360, OpenGl on Mac, Windows, and Linux, OpenGL ES on Android and iOS, and proprietary APIs on video game consoles. Unity also offers a variety of useful features such specification of texture compression and resolution settings as well as support for bump mapping, reflection mapping, and screen space ambient occlusion. We chose to implement our project with unity mainly due to its flexibility.

So far, implementing the mechanics of DC Comics deck-building has been the biggest challenge of our project. The game will be played asynchronously (so players can arrive and leave at will). Players will take turns making moves while the game is on-going. The mechanics of the game mainly consist of “buying items” and using those items to defeat a “super villain.” The challenge of these implementation is the variety of functions that different cards are capable of. A high-level summary of our work in this regard is to create objects to represent those cards and functions equivalent to the functions on the real-life cards.

Overall, our project has progressed as well as anticipated. We have set up a unity project as well as github repository making the project easy to edit and accessible for all group members. As far as our technical developments, all images have been scanned and uploaded to our database. The game mechanics are in the process of being implemented, but they are progressing as well as planned.

Our plan moving forward is to finish the game mechanics within the next two weeks. After the mechanics have been developed, we will work to make gameplay available online. This way, players can interact from remote locations, making our project exponentially more accessible and user-friendly.