Alexander’s Conquest

Summary
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Alexander’s Conquest is a historical strategy game that deals with the formation and expansion of the huge empire of Alexander the Great. Throughout the course of the game, the user will learn about the heroics of Alexander the Great. The game is designed with multiple missions which will allow the user, playing as Alexander, to get the full experience of building an army, creating and managing a civilization, making strategic decisions on the war field and at home, and eventually... ruling the world.

Overview

At the beginning of the game, the player will take control of Alexander the Great’s kingdom, the ancient Greek kingdom of Macedon. Initial resources (military units of different types and currency in the form of gold) will be available in a limited amount, and the player will spend gold on training and growing their military. As the player starts conquering the provinces he can gain or lose these resources based on the outcome of each battle. New military units will be added as new territories are conquered which can be used in future battles. Seven missions are predetermined for the user in a particular order which represents the invasions of Alexander during his reign. The missions involve invading these seven places: Thrace, Armenia, Egypt, Mesopotamia, Babylonia, Arabia, and India. The areas to be invaded by the player are identified for each mission. The player can also see the wealth and the military units possessed by each of the territories that may be acquired by conquering that place. The player completes each mission by fighting the battle and defeating the enemies. Only after completing the first mission, the player will be eligible to start with the second mission and so on.

The ultimate goal of the game is to conquer everyone and be the ruler of the world. Once all seven missions are completed and all seven places are conquered, the game is won.

Requirements

Functional

The basics of the functional requirements for our project are that the game must allow the player to do all the things that are necessary to get the full experience of the game. These include allowing the player to register, log in with their username and password, view their profile, and watch the tutorial. In the sense of actually playing the game, the game must allow the player to view the battle staging and battle screens during the battle process, then must show historical facts about Alexander the Great after a battle is finished. The game must also allow the player to exit the game from whatever screen the player is currently on.
Non-Functional

The main non-functional requirements for this project fall into the categories: performance, dependability, supportability, security, and usability.

In terms of performance, the game must not take more than 5 seconds on most events like loading after launch, updating resources, and loading the leaderboard; the user must be able to return to the game just as they left it last; and the game must hold up to 100,000 user profiles while allowing up to 5,000 users to be logged in simultaneously.

For dependability, the game must achieve a 99% up-time, the game must not lose player login credentials or game data (settings, progress, etc.) in the event of a system failure or crash, and of course the game must not cause any harm to the player such as vision or hearing problems.

The supportability requirements include the following: there must be online support for players if they are having any problems with the game, the game must be supported by all of the top web browsers (Chrome, Firefox, etc.), and the bugs found must always be patched in a timely manner so as not to lose players.

In terms of security, source code for the game must only be available to the developers of the game, people must not be able to access user information from the user database for other players such as emails and passwords, and all game policies must be disclosed to the users at registration and be available at any time for the user to read.

Some of the usability requirements are that the game must be easily accessible from a web browser by just typing out the url, the game must be easily understood by someone who knows nothing about Alexander the Great before starting, and the game must allow color blind users to play by having a color blind mode that changes colors to make the game more comfortable for those with color blindness.

Design Goals

The design goals represent the desired qualities of Alexander's Conquest and provide a consistent set of criteria that must be considered when making design decisions. Our main purpose is to develop robust, maintainable, well-designed and reusable software with Object-Oriented analysis and design. We are determined to define and visualize each and every perspective of the system explicitly in order to completely materialize our Object-Oriented approach. Next, we also pay attention to how to diminish the influence and impact of alterations, how to keep the elements of our design understandable, manageable, and focused and who is when behavior differs by type. The design goals basically, without going into much detail, are adaptability, efficiency, reliability, usability, and extensibility.