CSCI 3308-200: Software Dev Methods and Tools
Project Milestone 1
9/9/2020

Team Number: 205-2
Team Name: Phat Data Squad
Team Members: Aidan Aarts, Alexandra Charland, Ryan William Coe, Connor Duff, Jess Hamlin, Yingli Lou
Application Name: The Game Pod
Application Description:

This application, *The Game Pod*, will be a Collection of various mini-games built using c++ and python. The front end of this application will be web based, and created using HTML. The functionality of this application will consist of six relatively short yet challenging games for users to play through, each one with a unique design and unique mechanics. These games will have distinct fail and win states, so that the player will have to become familiar with each new game and learn new skills. A database will be implemented in this application to allow users to create accounts and save their progress and scores in these games. This will let users sign up for the application, and sign in or out once their accounts are created. This database will also be utilized to store various game information where applicable. The type of database will likely be a SQLite database. To increase the usability of this application, the front end of this application will be an inviting GUI with the landing page having stored information about how to navigate and use the application, along with descriptions of each minigame. Other methods will also increase this application's usability.

Along with being a collection of mini-games designed for users of all ages who want to play some unique games, *The Game Pod* will provide users with a unique gaming experience by collecting information about the game preferences of different users. Using this information, different types of game recommendations for different ages and genders will be provided by our platform. This game preference information will be a valuable reference for further game design and advertisements promoting our various games, and it will increase the usability of this application. Overall, The Game Pod will be an entertainment online website and a game testing platform, where game players can play new games for free with no advertisements and even comment on the games that they play or suggest other games that are not yet available online.

Vision Statement:

For users of all demographics who are looking for fun and interactive online experiences, The Game Pod is a collection of unique mini-games that span genres and include something for every type of player. Unlike other online game distributors, our product is free, personalized, and includes global statistics and message boards.

Version Control: https://github.com/CSCI-3308-CU-Boulder/F20-Phat-Data-Squad
Development Method: We will use the Agile method with epics and sprints that set deadlines on the tasks needed for each team member to complete their minigame. We will keep track of tasks and deadlines on Jira.

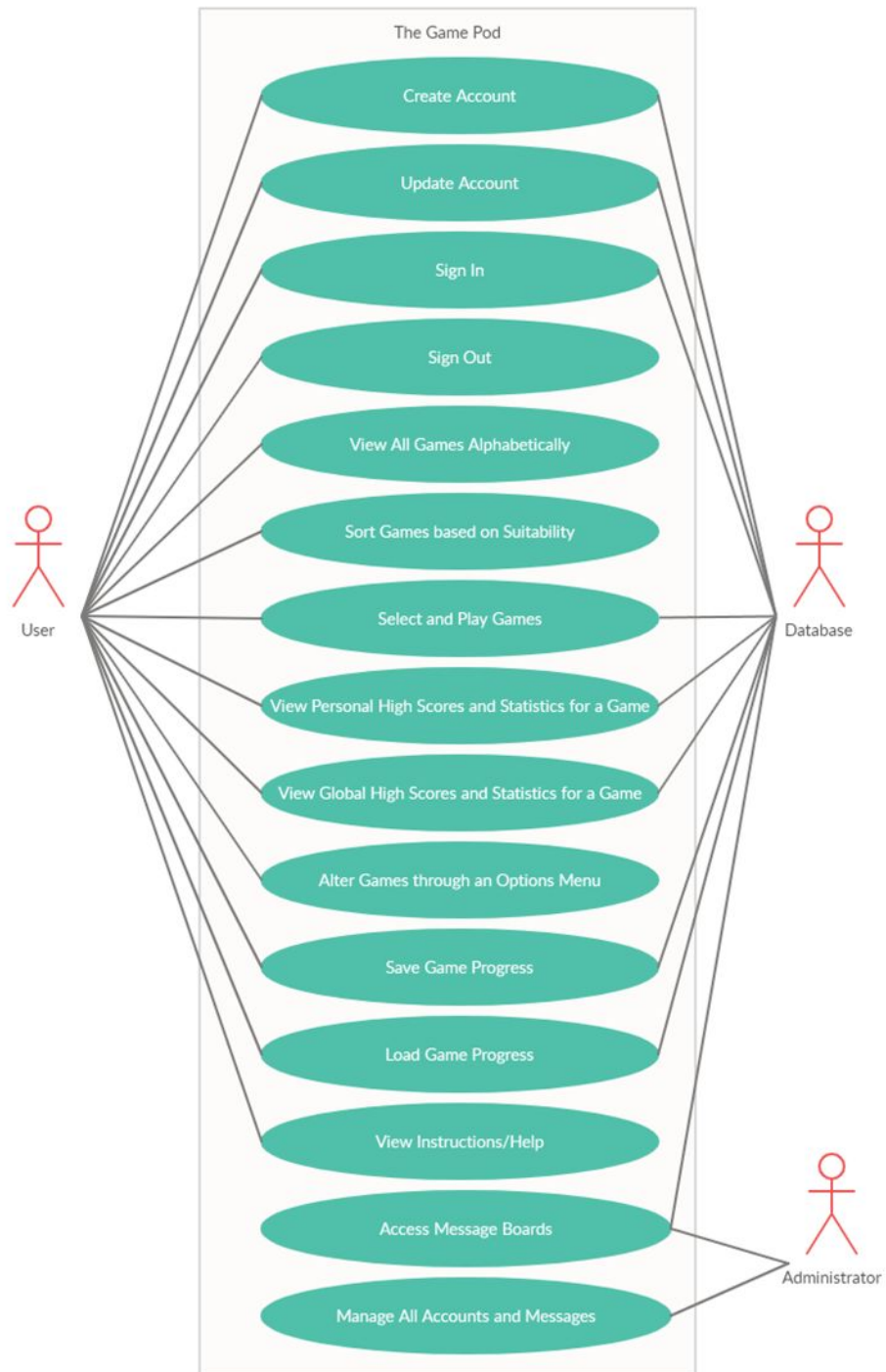CSCI 3308-200: Software Dev Methods and Tools
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Communication Plan: We will have a text group chat, a discord chat, as well as google docs to help document and communicate as we progress through the project. We will also use Trello as a means of tracking progress with its bulletin board functionality. Our zoom meetings on Wednesdays for an hour and Fridays for fifteen minutes will also be instrumental in our team communication, and provide opportunities for every team member to talk about what they are working on and if they are stuck.

Meeting Plan: We will meet at 12pm every Wednesday and for an hour or however long it takes to finish what needs to be done. We will also meet on Fridays for ten minute standup meetings, also at 12pm. These meetings will all be held virtually via zoom, using the link: https://cuboulder.zoom.us/j/6779644989.

Architecture Plan: For the front end of the application, HTML will likely be used. For the back end, Python or C++ will be used. A lot of the functionality of this application depends on a database, which may be a SQLite database. To host this application, Google Sites or Helio Host may be used.

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Use Case Diagram:

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Use Case Descriptions:
1. Create Account: Users will come up with a username and password, and provide some basic information about themselves like age and gender. This will be stored in a database, and used for later for signing in.
2. Update Account: Users may use this option to change their usernames or passwords, along with their personal information. These changes will be stored in a database, and used for later for signing in.
3. Sign In: Users will provide a username and password, which will be sent to a database for verification. This will allow users access to things like saving games and uploading high scores.
4. Sign Out: Users will sign out of the application, so others cannot access their saved data.
5. View All Games Alphabetically: Allow users to see all games available to them in an alphabetized list.
6. Sort Games Based on Suitability: Allow users to see all games available to them, in a list ranking the games from most suitable for them to least suitable for them. This ranking will be based on the information provided by the user when they created their account, and this option will only be available to signed in users.
7. Select and Play Games: Allow users to play a game that they select. Users will have the option to submit their scores and statistics to a database if they are signed in and want this.
8. View Personal High Scores and Statistics for a Game: Signed in users may want to see things like their all time high scores and other random statistics about their gameplay like their number of steps or accuracy. This option will allow that by accessing a database.
9. View Global High Scores and Statistics for a Game: Users may want to see things like the global all time high scores and other random statistics about certain games provided by this program. This option will allow that by accessing a database.
10. Alter Games Through an Options Menu: For accessibility or personal preference, users will be able to change game options here.
11. Save Game Progress: Signed in players may save their game to a database, and return to it later.
12. Load Game Progress: Signed in players may access previously saved games in a database.
13. View Instructions/Help: Help confused users by providing them with instruction on how to navigate the application and play different games.
14. Access Message Boards: Submit to and retrieve information from a database of messages between users.
15. Manage All Accounts and Messages: Certain accounts, called Administrators, may alter or remove messages and accounts from databases with this utility.