CS 440 Development Project -- Gather(A Family and Collaboration App)
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Project Overview

The product is a collaboration application which can be customized for each community/ group. It will help people to connect with each other even when they are miles apart. The users of this application can be in various groups such as family groups, office groups and friend circles. Career oriented children can use this application to get inspired for cooking homemade recipes during occasions. Also, this application will provide a way to connect with each other in an affectionate way by providing an inbuilt shopping platform to send gifts/essentials to your loved ones on occasions such as birthdays, anniversaries or festivals.

By means of family collaboration, this application will enable users to have virtual get-togethers such as virtual dinner and tea-parties, collaborative games and virtual shopping/ meetings hours for the group. This application will also keep track of all the important dates for all the members of the group providing a better foundation for the relationships.

Purpose

Staying in touch with family and friends is hard in this fast pacing world where people often forget to connect with their family members. Staying connected to one's family is important and helps keep one motivated in times of distress. Gather provides a single platform for families to unite with one another. Gather will combine features that these applications provide with more modern features such as integrating calendar to remind people of birthdays, anniversaries and other important occasions of their loved ones, organize virtual get-togethers and play multiplayer games . The application also has an integration of online shopping platforms to send gifts/essentials to their family members on just a single click. Gather will help people connect with their loved ones which will provide better and stronger relationships.

Report Overview

The latest update in the development report majorly includes design elements and issues regarding the project. The design part of the report includes the design goals of the project, which are essentially testing the robustness and maintainability of the application. Since the application is not replacing any of the current systems, the focus remains on proposed design of the project. This includes class diagrams with all the classes that are needed to be implemented and a dynamic model of the application which showcases the use cases of the application and expands on the knowledge on how the product will be implemented and used.

A proposed system architecture of the application is the server-client architecture, which seems the most reasonable choice considering the type of the application being made.

An initial system decomposition showcases on how the entire system will function and what classes will require which subsystems. For example, shopping requires the payment subsystem, while internet calling, video calling and texting uses IP multimedia subsystem.

Next, the deployment diagrams of the individual subsystems explains how hardware is mapped to the software and what classes and components trigger the use of the subsystems. The diagrams are accompanied by an android application example on how the data will be managed persistently by the application. Protection of the user data is essential for the success of the application, hence, all the access control and security access is defined and should be changed in very rare cases.

Since the application will be used all over the world, a global software control is essential to avoid confusion in different time zones. A global software control is also needed as some features will only be available in select countries. The report consists of plenty of sample UI images which are intended to discover new classes and subsystems that might be needed to be added in the project. It consists of a basic-but-full class diagram of the application that also contains the subsystems used in the project.

The object design portion contains all the subsystems explained in detail on how they will be used by different classes. For example, the user class, which is also the fundamental class of the project, will utilize the database subsystem to store all the data in the database.

Summing up with the design, next is the issues section that discusses what issues might all the current open issues of the project might cause and all the what off the shelf solutions will be provided for those issues. Basically, issues make up a very important portion of the project as they have to be minimum and should be taken care off, real quick.

New problems include potential issues that the application might create, in a good way. For example, the virtual get togethers will become more involved (more in the report). It includes limitations that might prevent the developers to achieve the design goals we mentioned in the design section.

Migration includes all the requirements needed to push an update to an already existing system. This is vital as the users will get all the updates they want, and all the new features of the applications, as the developers push updates to the app on the store.

Costs is the overall cost that will be required to build the application from scratch. This includes all types of costs including salaries of the developers, hosting costs, all overall, all the costs required for the development of the application.