

Purpose of The Program

The Degree Planner is to provide students with the proper resources to give them a better chance to graduate within the four year expected time. The DP will help students choose their classes from semester to semester depending on their major. Once the student has chosen classes for the semester the software will analyze the students' classes (past and current) and will then suggest a class schedule that has the best outcome to graduate on time. It will also generate a suggested schedule based on past students who taken those classes and give a schedule that's best for success together. Aside from finding the best schedule to help students graduate on time, the software also reminds students when their registration date is and prompts those if they need to take the upper division test. It will provide links to help students with financial matters, such as where to get loans or apply for scholarships.

Software context

The degree planner system is composed of two primary components: User Interface that receives user input and generate degree plan, and a server-side which updates and synchronizes data across CSUN database. The system features can be broken up into two groups as well: core features which are essential to the functionality of the system, and experimental nonfunctional requirements features that will potentially be incorporated. Degree Planner will be offered on the Android and iOS markets free of charge, as well as for desktop use. Development and maintenance costs are virtually nonexistent, so funding should not be an issue. If, however, this situation changes at some point, it will be possible to fund the project by incorporating on-screen advertisements into the application. Future development plans will be based on the features (if any) that do not make it in the initial release of the application

Statement of scope

In this system, a student as main user with CSUN log in credentials can indicate a major if they have not chosen one already. The system will display required courses to complete the degree program. Through surveys, the system provides the user with course related attributes such as average grades, professor ratings, and estimated semester

workloads. The system allows the user to create a graduation plan based on the information retrieved from the CSUN database regarding his/her major. The user can add classes that they want within the limit of how many units they are afforded at the time of using the software. The software will check all of the users' academic information in relation to all the courses displayed in order to show any prerequisites or co-requisites. After all of the desired classes are added, the user is then able to set filters for how they want to optimize their schedule. The software executes the filter and plans appropriately gives the user the option to save for future reference.

Major constraints

The greatest constraint for the Degree Planner project is time. This may result in fewer features in the initial release, however the core functionality of the system will be unaffected. There is roughly one month allocated to the development, testing, and documentation of this project, including both the mobile application and the server-side application and database. Collectively, the development team has very little experience with the Android and iOS platforms, so a significant portion of this time will be dedicated to learning the environment.

Restrictions, limitations, and constraints

As time is a limiting factor, the optional features previously mentioned in the SRS document are not discussed at all in this document. This is due to the fact that these features will likely not be implemented within the allotted time for this projects completion. However, as a result of the highly modular design and organization of data – as well as unlimited expansion potential on the server side – implementing these optional features at a later date would be arguably easier than incorporating them into the first design.

Another limitation of the software is the lack of a web interface. While not included in the optional features (as it may be considered a product of its own), a web interface to the Degree Planner system would allow users with or without the Android application to use a web interface with all of the capabilities of the Degree Planner application. Once the

server for the client application has been developed, it would be possible to implement this interface with relative ease.

The section of the Degree Planner that deals with having surveys is also a limitation of the software itself. A survey can, at times, be highly inaccurate. It falls to the honor of the survey takers themselves to answer the survey with as much accuracy as possible. If this is not done, then outlier information will be passed on to the survey and any information compiled can become highly inaccurate. This becomes a limit for the software as optimizing the schedule becomes inaccurate due to the planner taking into account information from the survey.

A constraint that is frequently mentioned in this document as well as the SRS is the requirement for the user to have internet access on their mobile device. This is essential, as all data mutating actions make a call to the server in order to complete that action. A potential solution is an offline queue that stores actions to be sent to the server once an active internet connection is established. If any conflicting information has been uploaded by other users during the first users