Lab 1 – Product Draft

Matthew Haydon

Old Dominion University

CS411W

Dr. Sumaya Sanober

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1 Introduction

College is supposed to be a time of self-improvement and learning, and while it can sometimes be difficult and stressful, whether that is because of a heavy course load, difficult material, or adjusting to the rigors of college life, there is no need to make things unnecessarily difficult for students who are trying to sign up for their new semester. One of the main problems with online scheduling for college classes seems to stem consistently from the way that the current applications handle scheduling and conflicts. College students and their advisors can often spend overly excessive amounts of time trying to figure out timing conflicts when preparing to register for classes. Required classes may sometimes overlap with each other or students could have other commitments that make it even more challenging to successfully schedule needed courses to finish their degrees. GradMap is a new application that aims at trying to correct these problems and bridge the gap left by traditional scheduling applications.

In most cases, one of the biggest issues that students are initially challenged by is simply understanding the courses required to successfully complete their chosen degree. Many schools do provide students with a sheet that lists the classes that the student should take, but there is no insight into which courses should be taken when and in what order it would be best to complete them. Often, selecting the wrong courses can add a semester or more to the degree program and students can often spend extra time trying to navigate the degree requirements and still not understand what they should do (Abele). Degree maps can sometimes help to alleviate some of this stress, but even then, there is a chance that the maps can be incomplete and fail to highlight critical courses that must be taken in the academic term listed in order to graduate on time (Abele). There is also the problem of "hidden prerequisites," which are courses that are not listed as required in the course catalog but are listed as a pre-requisite to one of the required courses for the degree (Abele).

Another problem that students can often face is the fact that classes are finite. There are only so many classes open for a given course and those classes only have a certain number of available seats. Students can often find that a required course is not offered in the semester that they need it, is offered without enough available seats for everyone who needs the course, or is offered at a time that conflicts with other required courses (Abele). When a required class is only offered at certain times and those times conflict with the student's other required courses, students may get "stuck" and be unable to register, which can lead to a delay in graduation due to the additional semesters that may be needed just to complete their degree requirements.

As a result of insufficient class registration systems, universities can have lower graduation rates due to people not being able to complete classes and advisors spend more time than necessary trying to look for accommodation for student schedules. The goal of GradMap is to challenge this ongoing problem by using a tailored UI that responds to user input to accurately and efficiently assist students and advisors with creating the best possible schedule each semester in order to ensure that course requirements are met as quickly and easily as possible. GradMap will aim to include options that are tailored to the student's major degree requirements, the pre-requisites that will best help them to further understand the course material in the required

courses, the courses that are offered in a given semester, and student time restraints because of conflicting schedules.

Stress is a part of college life, but there is no reason that graduation should be harder to achieve just because of scheduling errors that make it hard to fulfill degree requirements and the possibility that a student may have to add on more semesters than they planned for, which could lead to drop-outs due to financial strain. GradMap aims to help students overcome these challenges by implementing a system that will make scheduling a breeze and reduce stress on the student. The long-term goal of this application is to help make sure that more students successfully complete their degree and enter the community after graduating with all of the tools and knowledge that they need to be successful in their field, without compromising their pocket book or school/life balance.

2 Product Description

- Provide a top-level description of CS 410 product for the average reader.
- Provide a summary of the solution –- and its goals and objectives. This section should be one paragraph minimum.

2.1 Key Product Features and Capabilities

- What does it do?
- What is significant/unique/innovative about it?
- What does it accomplish?
- Describe how this solves the problem.

2.2 Major Components (Hardware/Software)

- Provide an overview of the hardware needed to support the solution.
- Describe how it is structured based on CS 410 MFCD.
- Define and describe the software to be developed.

3 Identification of Case Study

- For whom is this product being developed? Why?
- Identify case study group—the small group of users who will use app prototype and provide feedback.
- Who else might use this in the future?

4 Glossary

- Definitions, acronyms, or abbreviations used in this document. This section should only include those terms or abbreviations that are not commonly known or are unique to your product.
- Terms should be bolded followed by a colon and the definition.

<Note: This must start at the top of a new page>

Example:

Radio Frequency Identification (RFID): an automatic identification method, relying on storing and remotely retrieving data using devices called RFID tags or transponders. An RFID tag is an object that can be attached to or incorporated into a product, animal, or person for the purpose of identification using radio waves.

5 References

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