1: Introduction

1.1 **Purpose:** The purpose of this project is to build a working student registry system that allows students to track their current classes and its time along with their current hours finished and classes they have already completed. This will also calculate their GPA and allow it to be seen. All this data will be saved to a file so it can be relooked at and reused whenever necessary.

1.2 **Scope:** This registry will be built using visual studio, the WPF framework, and saved using a .dat file. It will allow editing of student's current classes, keep a record of their total hours, and keep track of class times.

2: Positioning

2.1 **Business opportunity:** All students and universities require a way to keep track of a student's class data. This data base will allow students to keep track of their classes, majors, and total hours in an easy-to-use interface. It will also allow professors and advisors to check the current enrolled and past enrolled classes of a student along with their total hours and GPA.

2.2 **Problem statement:** The issue of storing and sorting through student's data is a problem that affects all universities and students in some way including both of us. The impact of this issue is that all schools use a different software, for example d2l, to solve this issue. A successful solution must include some way to store data, a way to edit the classes a student is taking and has taken, and a way to calculate GPA.

3: Stakeholder and user descriptions

3.2 **Stakeholder summary:**

Brandon Sitz

- Student
- Developer

Weston Abner

- Student
- Developer

3.3 **User summary**

Students

- Primary intended audience will use it to keep track of their school records and current classes.
- Weston Abner and Brandon Sitz.

Professors

- Secondary intended audience will use it to keep track of their student's information along with using it to help students select their classes.
- No one.

University staff

- Secondary intended audience will use it to keep track of student's information for university records.
- No one.

4: Product overview

4.1 **Product perspective:** This product is mostly independent it only requires the code and a .dat file to store everything.

4.2 **Summary of capabilities:**

Customer benefits	Supporting features
Allows students to keep track of their classes	A list of all classes a student is currently taking
Allows professors to keep track of students	A search function to search for a specific student and display their information
Allows student to keep track of their already completed classes	A list of all classes a student has taken
Allows students to check their GPA	A function to calculate GPA
Allows students to declare their major	An area to store and display majors
Allows student to know the time of a class	A function to show time
Allow student to know the place of their class	A function to show the location of a class
Allows students to know the current time	A time function at the top of the WPF application
Allows students to know the current date	A date function at the top of the screen
Allows students to know the dates their class meets	A function to check date of class

4.3 **Assumptions and dependencies**

Assumption: The fact we may change what kind of file we are using to save everything.

Dependencies: Windows 10

5: Product features

- **Feature 1**. A list of all classes a student is currently taking
- **Feature 2**. A search function to search for a specific student and display their info
- **Feature 3**. A list of all classes a student has taken
- **Feature 4**. A function to calculate GPA
- **Feature 5**. An area to store and display majors
- **Feature 6**. A function to show time
- **Feature 7**. A function to show the location of a class
- **Feature 8**. A time function at the top of the WPF application
- **Feature 9**. A date function at the top of the screen
- **Feature 10**. A function to check date of class

6: Constraints

Limited experience with UIs and WPF on behalf of the developers and the project will only run in Windows 10.

9: Other product requirements

9.1 **Applicable standards:** Windows platform compliance standards.

9.2 **System requirements:**

- Processor: 1 gigahertz (GHz) or faster processor or SoC
- RAM: 1 gigabyte (GB) for 32-bit or 2 GB for 64-bit
- Hard disk space: 16 GB for 32-bit OS or 20 GB for 64-bit OS
- Graphics card: DirectX 9 or later with WDDM 1.0 driver
- Display: 800 x 600

9.3 **Performance requirements:** None

9.4 **Environmental requirements:** Windows 10