**Objective:** Original intent was to create a Student portal and Registrar portal.

Student portal would incorporate all student related scheduling activities. The information was split up between Undergrad and Graduate. The current project focuses on Graduate student information.

Registrar portal would involve information and tasks the Registrar needs to do to push information to students.

**Information regarding priority of features:**

|  |  |  |
| --- | --- | --- |
| R-Required Grad | W-Want Grad | L-Later Grad |
| RU- Required UnderGrad | WU- Want UnderGrad | L-Later UnderGrad |

\* R/RU make up minimal viable product.

**Business Requirements**:

* Create an efficient way for Students to create, register, manage, understand, and optimize their semester schedule.
* Create an efficient way for the Registrar to manage, inform, maintain the classroom and student schedule and update policies.

**System Requirements**:

* System will be web based
* System will use Python, HTML, Javascript, CSS, MongoDB

**Non-Functional Requirements:**

Availability Requirements:

* The system shall have a 99% uptime from 7am to 4am eastern time.
* System maintenance shall take place between 4am and 7am eastern time.

Performance Requirements:

* A web request to the system shall have an average response time less than one second.

Security Requirements:

* The system shall require users to enter credentials to access the system.
* The system shall keep track of user sessions on the backend.
* The system shall block users from accessing other user's information.

Production Requirements:

* The system website shall be functional on desktop versions of IE8 and above, Chrome Version 53.0.2785 and above, Mozilla Firefox 48 and above and Microsoft Edge 14393 and above.
* The production system must use TLS
* The production system must run on cloud storage.

Development Requirements:

* The development system must run on windows 10

**User Requirements**:

**Student Section:**

|  |  |
| --- | --- |
| R | As a Student I want to check graduation requirements so that I know which classes I need to register for. |
| W | As a Student I want to view the classes I have already taken so that I know how far I am into my degree. |
| W | As a Student I want to view all the class combinations so I can easily select the option I like best |
| W | As a Student I want to submit my Study Plan & Application for Candidacy to make approval easier |
| R | As a Student I want to know what class restrictions, prerequisites, and conflicts may occur at class selection |
| R | As a Student I want to know what classes are available per semester |
| W | As a Student I want to know what classes will be available next semester |
| R | As a Student I want to know my total number of credits taken so far based on status(grad/under) |
| R | As a Student I want to know the total credits allowed for the current semester |
| R | As a Student I want to know the amount of credits required for my school |
| R | As a Student I want to know all the class names that are mandatory for graduation for my school |
| W | As a Student I want to how many students are registered and percentage chance the class will not get cancelled due to low participation |
| L | As a Student I want to have a list of generated recommended class options for electives |
| R | As a Student I want to know the requirements while taking courses for maintaining F1 visa status |

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**Registar Section:**

|  |  |
| --- | --- |
| R | As the Registrar I want to automatically assign rooms to classes to avoid scheduling conflicts. |
| W | As the Registrar I want to check which courses are often taken together so that scheduling conflicts are avoided. |
| R | As the Registrar I want to know all room numbers available or in use for the semester based on day and time. |
| R | As the Registrar I want to push schedule updates to the students visual interface as comments such as class cancels |
| R | As the Registrar I want to update schedule policies and globally adjust students schedules |
| R | As the Registrar I want on demand updates on how many total students have registered to classes |
| R | As the Registrar I want on demand updates on classes that have low counts for registration |
| R | As the Registrar I want to plan classroom use in a visual weekly layout |
| R | As the Registrar I want to approve student schedules |
| R | As the Registrar I want to approve student graduation candidacy |
| W | As the Registrar I want to know the total room usage per semester as a percentage |
| W | As the Registrar I want to be made aware of the total holidays per semester |
| W | As the Registrar I want to total the number of classes per semester per day to know which are most impacted by holidays |
| L | As the Registrar I want to manage booked conferences at the best room |