



Database

Technology: PostgreSQL

Contains:

- Master ID for Assigning Unique IDs to New Terms

Terms:

Contains the following information:

- Unique ID Number
- English Name
- Start Date
- End Date
- Due Date for Availability Submission

Student:

Contains the follow information:

- Student PSU ID
- Student Name
- Student CAT Nickname

Availability:

Contains the following information:

- ID of Associated Term
- Table of Available Time Blocks for each Day of the Week
- Shift Length Preference

For the database to work with the minimum viable product we are using PostgreSql and should have at least storage for the term data and storage for the student data. In the above description the availability is stored with the students themselves which should reduce the amount of tables we will end up with compared to the predecessor.

Scripts

Technology: Perl

Term: Scripts for generating and retrieving terms

Add Term: Adds a term to the database.

Retrieve Terms: Retrieves a list of all terms in the database.

Retrieve Modifiable Terms: Retrieves a list of all terms in the database whose deadline for submission has not passed.

Retrieve Single Term: Retrieves the availabilities for students of a desired term.

Student: Scripts for creating and retrieving students

Add Student: Adds a student to the database.

Retrieve Student Info: Retrieves info about a student from the database.

Availability: Scripts for setting and retrieving student availability

Set Availability: Sets a student's availability for time blocks within a term or overwrites it if it already exists.

Retrieve Availability: Retrieves a list of all availability tables for a specific term.

As far as scripts we are using Perl to create scripts for term access, student access, and the availability. The term access deals with the ability for an admin to add a term, be able to retrieve a list of the terms, retrieve modifiable terms for students to be able to enter their availability, and to be able to retrieve a single terms availabilities that were submitted. Student access deals with the ability for admins to add students and for admins to retrieve student info from the database. The availability will be made to allow students to set their availability and for retrieving the list of availability tables.

Student Pages

Technology: PHP

Home: Primary page for students

Contains mechanisms information for:

- Displaying the term currently being viewed.
- Displaying availability for time blocks within a term and allowing modification of said availability if allowable.
- Selecting a term, modifiable or otherwise allowing a student to view a history of availability.
- Displaying preferred shift length and allowing modification if Allowable.

As far as the student page goes they should only require one page that has all the functions they need for their availability requirements. As being a remodel of the previous availability this page needs to be easier to understand and able to submit the form without much hassle. The student page will allow the submission of availability on the selected term along with being able to select the preferred shift length if applicable.

Admin Pages

Technology: PHP

Home: Primary page for admin

Contains mechanisms and information for:

- Adding a new term with fields for a name, start date, end date, and final date for availability submission.
- Selecting a term from the database to view submitted student availabilities via a dropdown menu

View Term: Page for viewing student availabilities for a term.

Contains information for:

- The block currently being viewed.
- Time blocks for each day of the week and a list of students who have indicated availability during that block.
- A list of students and their corresponding preferred shift lengths.

For the admin pages we will need to construct two pages, one for the home page for admins and one for viewing the term also considered the current student availability. The home page will need to be made with the ability to add a new term and to select a term to view. As far as the view term page it should be able to bring up the submitted availability for the selected term they chose and show time blocks for each day of the week and the students with their indicated availability along with their preferred shift lengths.