PROJECT PROPOSAL
Temple Course Helper

Table of Contents

Project Abstract

This document proposes a script that will take Temple's course numbers and find all the course information as well as teacher ratings from Coursicle. The script will take all this information and store it on a database along with the student ID entered. On the screen, all the information (course time, cost, professor, rating, description) will be displayed, and the user will be asked if they would like to be sent this information as well.

High Level Requirement

The script will first prompt the user if they have an already entered student ID to display their previous data. If it is a first-time user, the user will enter their student ID as well as the courses they want to find. This script will use web-driver from the selenium package. This is a package that allows the script to interact with a web browser, in the case of this project the browser will be Chrome. Once the script gets online it will find the necessary xpaths that are found by inspecting the page. Xpaths are the codes that designate the different parts, or controls, of the UI that users see on browsers such as buttons, textboxes to type etc. The script will pull the information from these xpaths and store the info on a hashmap. The information will be stored in a different class where all general information about the course will be stored (besides the course ID). This class will be used as the value in the hashmap while the course ID will be used as the key. Following this, the script will fill in a record in a database so the user can have their information saved in case they want to revisit it. The information will be displayed on the screen, and if the user wants, they can be sent the information through a bot.

Conceptual Design

Around 4 classes should be present (main/GUI interaction class, database communication class, communication with school website class, communication with SMS/email class). Done either in C# (easier to work with GUI) or Java (more familiarity) depending on the level of comfort with the team. Knowledge of SQL commands and Access will also be useful and can be improved on with this project. How to properly use the inspect tool on browsers as well as being able to break down what is information is being given in HTML will also be a skill that will be necessary and can be improved on.

Proof of Concept

https://github.com/cis3296s22/ArthurKozhevnikProject

Background

This project has will be built from scratch with no resources taken from any open sources.

Required Resources

Research will need to be done on how to pull information from a website using Selenium web-driver. Chrome will need to be installed as well as a package for Chrome that allows scripts to interact with the browser. Know Research needs to also be done to fully understand how to use SQL to work with databases like Access. If the decision is made to use Java instead of C#, well designed GUI will need to be fully understood as well, since Java lacks an easily buildable GUI

Vision Statement

For Temple's students, their parents and professors who need an easier and more informative course-info software the Temple Course Helper is an application that will make finding information about courses and professors easier than ever. Unlike Temple's website or other websites, our product is open for everyone to use, provides all the information in one application, stores this information, and sends them to the user.

Feature List

- As a freshman student I want to have easy access to my recent inquiry so that I can access them easier later.
- As a parent I want to be able to see all of Temple's courses information so I can help my kid with registration.
- As a professor I want to see my rating so I can get more feedback.
- As a senior year student, I want to get an email with my inquiries so I can access the information everywhere.

Personas

Bobby, a freshman from Delaware. (Roberto Nano)

Bobby, age 18, just graduated from Brandywine High School, a school in Wilmington, Delaware. Bobby is eager to live the college-student life and cannot wait for the Summer to be over. Even though he was excited to leave his parents' house, he did not want to go very far and so he searched for colleges close to him. Temple University was the ideal choice for him.

Unfortunately, Bobby does not know anyone that goes to Temple and so he is having a hard time to find the right classes with the best professors available for him. Bobby is eager to use Temple's Course Helper because, he thinks, is the best available option for him that will help him get all the information for all the classes he has to take along with the ratings for the different professors.

Sofia, a High School teacher. (Sofia Drachuk)

Sofia, age 39, is a high-school teacher from Wilmington, Delaware. Sofia, born and raised in Wilmington has been a high school teacher for over 10 years and she loves to teach kids and prepare them for college. Sofia is Bobby's mom, and she is excited that her son is going to college after the Summer.

However, Sofia, like any other parent, is worried that her son, Bobby, will leave her house and move to Philly. Sofia wants her son to succeed, and she wants to be there for him whenever Bobby needs her help to find the perfect classes and the best professors for him. Since Sofia has experience on that field, she is excited to use Temple Course Helper to find the best classes and the best professors for her son whenever he needs her opinion and help.

Arthur, a College Professor. (Arthur Kozhevnik)

Arthur, age 55, is a college professor at Temple University. Arthur, born and raised in South Philly, has been a professor for over 25 years. He is a Political Science major professor in the College of Liberal Arts, and he loves to teach the theory of government and politics at the state and national level. Arthur loves and cares about his kids and he wants them to enjoy his class and learn from it.
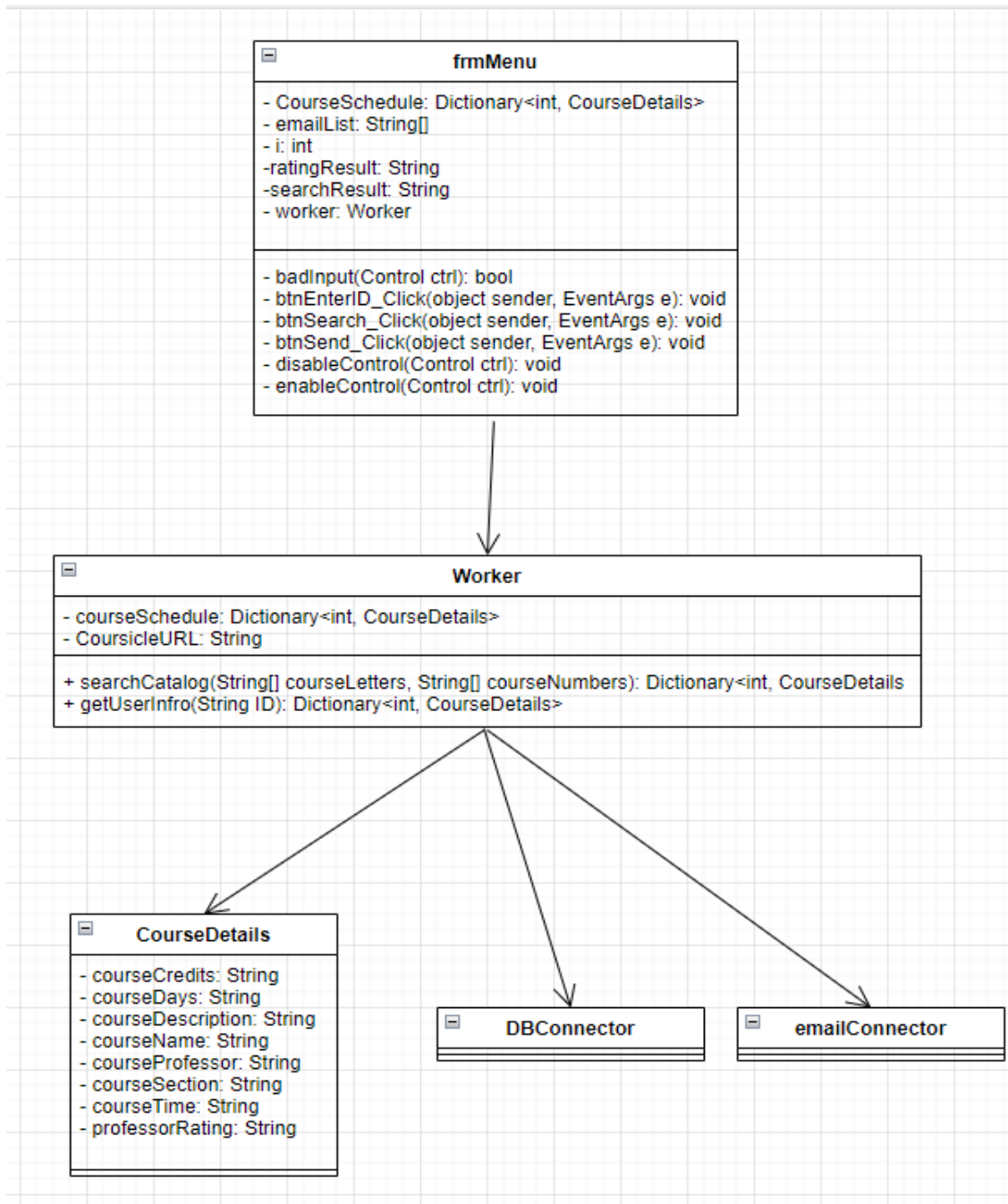
However, one time Arthur heard one of his students mention a rating about a professor. Since Arthur cares a lot about his performance and wants them to enjoy his class, he is going to use Temple Course Helper to monitor his rating and make sure he gets great feedback.

Rachel, a Senior year student. (Rachel Rubin)

Rachel, age 23, is a senior year Computer Science student at Temple University. Rachel was born in New Jersey but moved in Philadelphia around 10 years ago. Ever since she was a kid, she loved computers and games. Her years at Temple have been a little challenging but she has managed to almost finish her degree with a perfect GPA.

Since Rachel cares about her grades, she wants her final year at Temple to be as easy as possible, especially while she must get the more difficult classes in her major. Rachel is excited to use Temple Course Helper to find some interesting and not challenging free elective courses taught by professors with great ratings. Finally, since Rachel will be very busy during her last year, she wants to have these records saved and receive an email with all the information she searched

Class Diagram

The above UML Class Diagram is representing how our program runs and the relationship between our different classes. At first the frmMenu class (Which is essentially the GUI class) is going to call the Worker class. The worker class will handle the web scrapping and will set all the fields in the CourseDetails class. The Worker class will then give all the course details to the DBConnector class in order to store the information in the database. Finally, the worker class (if necessary) will call the emailConnector class and give all the necessary information to it, where the email connector will handle sending an email to the user.

Project Progress

Week 2 Progress

Sprint Goal: The group will try and finish everything that is included in the Sprint Backlog this week. These things include the search bot that will get the course information from Coursicle, and the connection to our database.

Backlog Features

- Bot goes online and searches for classes, picks the first section.
- Bot stores all the data of the 4 classes searched into a dictionary and displays it to GUI as well as saving the information to a Database.
- Database has been added to store info.
- GUI has more functionality to allow for better user choice/mobility.

Tasks in Sprint	Task Status at end of Sprint	Assigned To
- **Bot goes online and searches for classes, picks the first section.**	Completed	Arthur
- **Bot stores all the data of the 4 classes searched into a dictionary and displays it to GUI as well as saving the information to a Database.**	Completed	Arthur/Sofia
- **Database has been added to store info.**	Completed	Sofia/ Roberto
- **GUI has more functionality to allow for better user choice/mobility.**	Completed	Arthur/Roberto/Rachel