CSCE 606 Software Engineering

Team Spongebob : Iteration 1 Project Report

Spring 2021

## **Customer Feedback**

Team Spongebob met with the client on April 19th, 2021 at 5 PM (CST) on Zoom. Upon viewing the registration of a user, user log-in, and a successful file upload the client was pleased. The next iteration will focus on providing a csv template for the user to import data via the website, and the generation of a csv file for the user to download.

## **User Stories**

**Introduction:**

We took some time looking at the legacy code to better understand how the application functions. The legacy application has a register and login section for new and the current users. From the home page, users can register via the Register button on the login page, for that, username, email and password are required. The login page needs a few revisions and also setting up with the database. In addition, we need to make some changes to the template to update the website design. Also, some debugging and testing are required for this part.

There is some code for the uploading section but it is completely out of work and the code does not have any links to the backend. This page requires a complete design to be able to store the file and communicate with the analyzing part.

**First User Story:**

Feature: Log in to website

○ As a teacher

○ I want to log in

○ So that I can access the app under my profile

This user story was a refactoring of a story completed by the previous team. After doing the initial deployment of the legacy project into Heroku, we discovered that the registered user credentials did not stay in the database after the user had navigated away from the page. While we planned to investigate this issue as a separate story, we found the root cause of the issue while implementing the Feature step definitions for the existing code. After investigation with the help of [this website](https://www.ordinarycoders.com/blog/article/django-user-register-login-logout), we found that the legacy project did not add the login function to the views file (views.py) or add it to the list of URLs (urls.py) for routing. Once these changes were in place the application’s authentication began to work as expected.

**Second User Story:**

Feature: Upload a CSV file

○ As a teacher

○ I want to upload a CSV File with Student Data

○ So that I can run the AI prediction

This user story was outlined in the legacy code, but left incomplete. It is a critical step for the functionality of this SAAS, so it was prioritized. Team Spongebob completed this user story as now a user can successfully upload a file, specifically a csv file, which both populates a table in the database, and is saved to a media folder within the DSSP directory. At the moment, we are still determining if the best course of action is to temporarily or permanently store these user provided csvs for the AI prediction. Still the how to do this has been developed. This user story is the first of a chain of user stories which will be established in iteration 2.

## **UML Design Diagram**

Link: [Here](https://plantuml.atug.com/svg/hLHDRzim3Bq7s7ymi4iBBC5w6uOYW6ihhb773loneBq8giscmcpPi9G5nRR_FbgotIJj3asRIqYAxv5yefoNJ4gBKYwuefGsJzRbPLKNsnBcSpIji-MNkiqVUN5kOU2pozgV2J2l1H3MxydVIQxnJ6xuMx4M_bZJb3ndYjTYv9AW51SRUGgV7GJHchZqEahIn4Ioz9gkx2HPHx5BVzY1xzff59l3ApiXrFLZxJYndwnkQKgMgy1E2OAS6ts00BlBD1YNN6MUjlmmIR4WbhDNAtCOsA6NsHwXJkGI4uayFwGnmIh4IMaM1tlXmLlwhXkGjHqRJ1XXMtRi6SuuYZJEYSA53YJ4YKbARyYjSLCxzPs57v2acoLv4KnmNknfBquxpdr_Q6GOFkcz9ALn5eR4A9JwIqBlej1GPTYaV_4j79tWukkpazvfSvruVYTFu3jOA0h7MzwsvKatZBY6AGMja2FNxWEtxzqleQYuE1KSr1ikd5eyy4tVec0LuF74Rfe-Vlbdkfytb6sQDyk9j0DiDZke_TtAQw4O5zAQzmMofgnPiU0bBEgswhjxG5SRYgjIz_c0XtAcKxf63r6JWKj26yE6Ixp6FJQe62yxakxSQK5Vp3FL4MWWMu9YOpjG5bARg09eBfEaspf1dn670XqfSA3HGTxnTF_DrAs_elLxTr0FVyAuunBw8WMfUbNp5WeGYhFII5jsYqAxgF7RVbQA7-vjStQkWsXdWwsGYshKVc20OGo5xkevJCAmtgQ3lgCk_vJR6t5clVkfNX7y8pz6lpZiJYARJgVcgtHVRrMlr2CJHGbqgrSF2jezkE6ehWPpJqhTbSuUSb67iQNfTFvoZRSIv57AomtMIVrsCS4sy9u9yPqBtLcEUmKjliww-_D0GCiK5DRza-LnbLMbjTljPXkkjbKvo-lgqmJf0JyKZNgoAgZkePMJVm00)

## **Testing**

**Improvements and Additional Testing:**

The initial version of the legacy project included Django unit tests for the login functionality. These tests did not run at first because the previous team had added a test coverage package that caused errors. We found the source of the issue and now the tests run and pass.

**Running Our Testing:**

To run our unit tests, from the inner DistrictSchoolPerformancePrediction folder, use the command: **python3 manage.py test**.

The original project did not contain any acceptance-level tests. We wrote Feature files corresponding to the expected behavior for the existing website as well as for future stories using Python’s behave-django and Selenium packages. Step definitions have been implemented and are passing for the Login functionality of the website. *However, due to the time spent on understanding Python’s testing syntax and functionality for this iteration, the step definitions for the Registration and future functionality of the application have not been implemented yet.* To run our acceptance-level tests, from the DistrictSchoolPerformancePrediction folder, use the command: **behave -t ~@in\_progress**. Use **behave** only to see all of our features run, not just the implemented ones.

**Test Coverage**

The test coverage for our project can be found within the Github links below.

## Project Software Aids Links

* GitHub repository: <https://github.com/hpatrick5/sp21-csce606-group_project>
* Pivotal Tracker: <https://www.pivotaltracker.com/n/projects/2489771>
* Heroku Deployment: [https://sp21-606-school-district-data.herokuapp.com/](https://sp21-606-school-district-data.herokuapp.com/login/)
* Code Analysis: <https://deepsource.io/gh/hpatrick5/sp21-csce606-group_project/>
* Unit Testing Output: <https://github.com/hpatrick5/sp21-csce606-group_project/blob/main/DistrictSchoolPerformancePrediction/i1_unit.txt>
* Feature Testing Output: <https://github.com/hpatrick5/sp21-csce606-group_project/blob/main/DistrictSchoolPerformancePrediction/i1_features.txt>
* Test Coverage: <https://github.com/hpatrick5/sp21-csce606-group_project/blob/main/DistrictSchoolPerformancePrediction/i1_cov.txt>