Project Report

Github repo link: https://github.com/UT-SWLab/TeamA13

Team:

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Team Canvas group: A13

Project name: FitHub

Motivation and Users: Fitness enthusiasts of all ages and experience levels

Requirements: All project dependencies and required python libraries are listed in the requirements.txt file in the Github buildfiles.

Reflection

In this first phase, we learned how to reference and pull from multiple APIs and easily retrieve data from different sources. It was really interesting to see how Youtube and Google captured complex resources such as a Youtube channel and represented the data in a JSON format. After reading documentation, our whole team gained invaluable experience with how to access data in a RESTFUL manner for developer use cases. Throughout the development of the different parts of our project, we also got

more and more comfortable with using Github branches, storyboard, and issue tracker for project management. In addition, we were able to apply the basics of HTML, CSS, and Bootstrap learned in class to a real-world use case and design the different pages on a website with the end user in mind. The majority of our team has never worked with frontend development before, so directly using Bootstrap elements to simplify the web app development and layout was a very helpful skill that we picked up during this phase. Last but not least, we also learned a lot about the details of MongoDB and how to use PyMongo to access and store large datasets to a remote database.

Although we learned a lot, we also had many struggles during this phase. For example, a few of our members were unfamiliar with the Github workflow, causing code integration to be extremely inefficient. In addition, not enough local testing was done before pushing to the public repo. We also had trouble with formatting the model grids nicely, especially with centering alignment. Also, some of the image URLs pulled from the Google Search API were broken, resulting in images not showing for both exercises and equipment models. Additionally, when moving to the next picture on the carousel, the picture sometimes shows up at the bottom of the screen then moves up to its position; this means the carousel still works, but we want to improve on this in the next phase of this project. Finally, calling data from APIs took way too long, around 45 seconds to pull over 200 exercises; therefore, we needed to use MongoDB database to store data so the APIs are not called during deployment. However, the data and the amount of data we stored in the database still needs to be improved in the future.

Alternatively, we also had many things that went well this phase. Fortunately, the splash page development as a whole went quite smoothly as the navbar was easy to

work with. The creation of the channel instance pages also went well, and the data could be easily found in the Youtube API. We were also glad that our images for each team member in the About page worked great after cropping. They very nicely fit on our cards for each member, and we were very happy with how that page was finally completed visually. We were also fortunate that our Google Custom Search API worked well for easily searching images needed for the exercises and equipment page. This allowed us to easily get a large amount of multimedia required for the instances of the three different models. Finally, we also were glad with our idea to use a ‘dev’ branch and individual branches for each person. These individual branches are updated with the code each person is currently working on, the dev branch has the most updated finalized code, and the main branch holds the code that is due for each phase.