

a. The conceptualization of another feature of your app (visuals are encouraged as well!)

i. What are the steps taken to develop the model for this feature?

I need to fetch the user data from the database on the backend, rank all the users and display them on the page in order on the frontend.

ii. What data will your model be collecting?

Steps and distance traveled.

iii. How would you collect this data?

Probably through a mobile app. Phones these days have sensors on them to detect steps and also can get current location which I can use to calculate distance over time.

iv. How would you present the results of your model?

First through a graph for each individual user and then in a leaderboard where they can view their friends current workout progress for the week.

v. Why did you chose this coding convention?

Basically everybody has a mobile phone in their pockets and its an easy way to get their location data.

b. The architechture of your app - When does your code actually run with the app?

The code is in two seperate parts. The backend handles all the user account data which is collected by the phone and then sent to the backend for processing and ranking. Once that is done it can be sent back to the mobile device and displayed to the user. I need a seperate backend because the app will have to be able to access data from other users and having a database on the backend that stores all that makes sense.

i. At what point does the model you have developed actually run within the app?

It will be running on the backend, using the input data to calculate total distance and steps taken as well as create a array of distance vs time and then plotted onto an array. We can turn that plot into a .png and send it to the user.

ii. At what point does the model you have developed actually stop within the app?

Once the plot has been sent to the user the model can stop and will be rerun when the input data gets updated. Each time we generate a plot, it will be cached and stored in the user's account so that next time we need to fetch the data we can just use the currently stored plot as long as there has not been any new data.

iii. Why did you pick these starting and ending points?

Well we need the data before we generate the plot for the start and then once we are done with creating the plot, we no longer have need for the model.