

Experience

In this part, we will discuss our experience through the development using team 26's framework. The experience includes: (i). technical support from the documents and team 26 members. (ii) framework API design.

Technical Support from documents and original members

During developing the framework. We found their documentation is descriptive and helpful, which makes our life easier to develop plugins based on their provided documents. But I still recommend that they should make the document more formatted, e.g. using a table to describe APIs.

As for the support from the team 26 members, we think that it might be better for them to solve the issues proposed by other teams on GitHub instead of only answering questions on Piazza. We asked a question regarding one of their data structures by both GitHub issue and Piazza, but only got a response from Piazza.

Experience using their API

They provide succinct and easy-to-use APIs for us to develop plugins, but we still find some aspects they can improve/extend to make their framework more robust and useful.

- Lack of error information interaction between GUI and core. Their API does not provide any potential exceptions that can be thrown during executing code. Whenever an error occurs, their framework can only print an error message on the console without notifying the GUI user.
- As a timeseries data framework, it makes much more sense to support smaller time granularity. The current framework only supports data at the granularity of one day.
- Current user input cannot support multiple user input and different means of user input (e.g. user selects a path, select one/multiple options from some provided options)
- Support more data types in dataset instead of only double.
- Fix the intrinsic bug in the framework when running the program.

Our findings:

By playing with team26's framework, I first tried the covid-19 data plugin. By comparing some of the countries like the United States, China, France and Japan using the line chart display plugin with some of the operations that the framework provides, the truth is that for almost all the countries, the growth rates of the total cases are decreasing. However, by visualizing and comparing the trends of the total cases for those countries, the unexpected fact is that the condition in the US does not seem good so that the conclusion is that people in the US should stay at home and try our best to maintain our health.

Besides, I also used the weather prediction plugin. The temperatures of the following 10 days in Pittsburgh have high difference between max temperatures and min temperatures, which means that people are easy to get cough and some other small issues due to these weather conditions.

By combining the information together, my final conclusion for students in 17514 or we can say for all the students in CMU is that stay at home, write code and wait for the good news is the best strategy for now.