SE 2217 Software Engineering Principles – Lab #14 (Labwork 7)

Sequence Diagrams

Sequence diagram is an interaction diagram that emphasizes the time-ordering of messages. It depicts the objects and classes involved in the scenario and the sequence of messages exchanged between the objects needed to carry out the functionality of the scenario.

In this labwork, you are expected to generate a sequence diagram for the given scenario.

_____

Receiving Weather Information by Weather API

Most people learn about upcoming weather information from weather systems. Multiple processes occur during this learning process.

Firstly, the user selects city from user interface (UI). After this selection, UI sends this city request to the backend server to handle. Backend runs the GET function inside of itself to create a weather request. Also backend server saves the city information inside of it (for future usages). Then, backend server directly passes the weather request to the Weather API.

If the request is valid, API sends the city-weather information (200 OK) back to the backend server, then backend server passes this data directly to the UI. If request is not valid, weather API responds with 400 OK (Bad request) message and backend server sends an error message to the UI. In any case, UI places incoming data on the UI by itself and finally, shows the result to the user.

Arbitrarily, if users want to get weather data daily, they can enable notifications from UI. As a result, UI sends the already created weather data to the user for each day.

Hint: Do not write message labels as data flow label.
Example:

[User] City information-----> [User Interface] (Wrong)

[User] Selects city -----> [User Interface] (True)

_____

In line with the given narrative, create the necessary sequence diagram.

While exporting, please choose your export type as PDF (diagram per page) to gather all your work in a single document. Then, name it as **YourStudentNumber.pdf** and upload it under the related assignment.