* The GUI is created by calling the interface Monitor and populate the drop down
* User selects the between either the text view or the graph view
* IF the User selects the text
  + Then the user would select the location, to view rainfall, temperature or both
  + Then the User clicks the add button
    - If rainfall/temperature/both is selected the GUI creates an object of the weatherTimeLapse.
    - The object selected would then access the web service.
    - These values are stored then in the class.
  + If the user then clicks the View button
    - The GUI then creates the Graphs.
    - The graph data is pulled from the class weatherTimeLapse.
    - The data is then used back in the GUI to create the graphs.
    - These graphs are displayed to the user.
* The GUI is updated every 20 seconds for Stage 1 And every 5 minutes for Stage 2
* The update is run from the driver class
* The driver then runs a method in the GUI which repeats the object creation for the selected locations.
* The GUI is then updated.

Sequence diagram.

Classes used: User, Monitor, Driver, GUI, WeatherTimeLapse, Weathertimelapse2Stub

User Driver Monitor GUI WeatherTimeLapse Weathertimelapse2Stub

Lifelines above for Stage 2

The driver methods (getLocations()) sent to monitor.

The monitor accesses the WeatherTimeLapse2Stub. GetLocations() returns to the monitor locations.

The driver then runs the CreateGUI() in GUI

(The user then selects the text or graph display and the temperature/rainfall or both. From the GUI)

The user clicks the add button on the GUI.

(

If Graph and rainfall is selected (Alt path)

The GUI creates an object of weatherTimeLapse. (Methods new WeatherTimeLapse(locationSelected,rain,temp))

WeatherTimeLapse then creates an object of WeatherTimeLapse2Stub. getWeatherData() method to weatherTimeLapse2Stub.

WeatherTimeLapse2Stub returns weatherData to the weatherTimeLapse class.

)

(

If Graph and Temperature is selected (Alt path)

The GUI creates an object of weatherTimeLapse. (Methods new WeatherTimeLapse(locationSelected,rain,temp))

WeatherTimeLapse then creates an object of WeatherTimeLapse2Stub. getWeatherData() method to weatherTimeLapse2Stub.

WeatherTimeLapse2Stub returns weatherData to the weatherTimeLapse class.

)

(

If Graph and Both is selected (Alt path)

The GUI creates an object of weatherTimeLapse. (Methods new WeatherTimeLapse(locationSelected,rain,temp))

WeatherTimeLapse then creates an object of WeatherTimeLapse2Stub. getWeatherData() method to weatherTimeLapse2Stub.

WeatherTimeLapse2Stub returns weatherData to the weatherTimeLapse class.

)

The user then clicks the view button. (View button clicked)

The GUI then uses the CreateGraphs() and displays it to the user.

When 20 seconds pass by driver runs the executor to the GUI class

The GUI class reruns the method displayOutputUpdate() creates objects for weatherTImeLapse

The GUI then runs the createForms method which runs the getters in the weatherTImeLapse.

GetTimeLapseRainfall(),GetTimeLapseTemperature(),GetTimeLapseTime()

The GUI recreates the graphs.