

CMPE 277- WINDOWS APP

BAY AREA WEATHER FORECAST APP

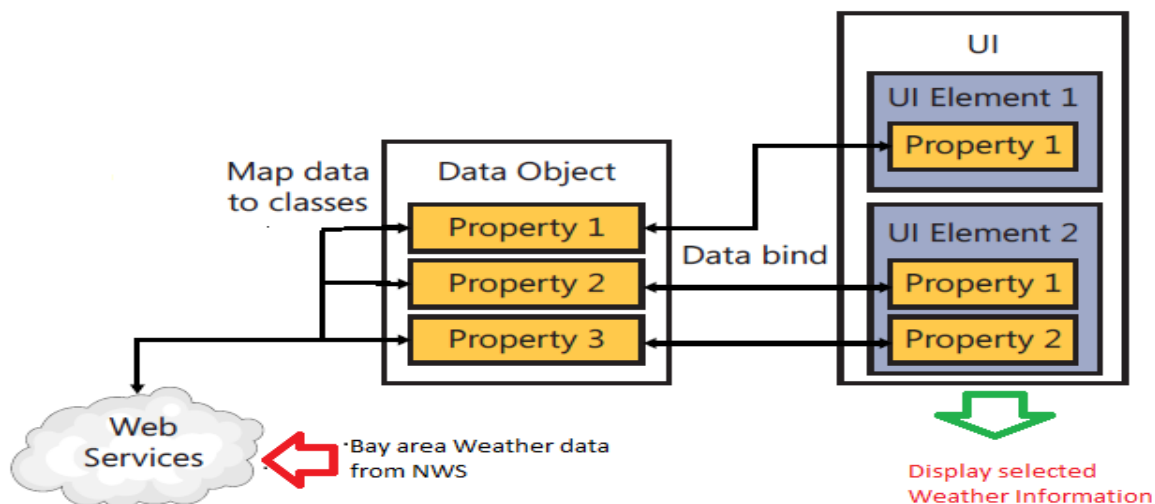
GOAL OF THE APPLICATION:

The goal of the application to provide the users with the bay area weather information. The places or cities of bay area are already placed inside the code along with their latitudes and longitudes. The application will allow user to choose the city to which weather information he wants to know. It helps daily commuters of bay area and sanfrancisco to be updated with the weather info and make decisions accordingly for their travel plans. The page displays the weather at that current point of time and also weather after 12 hrs. Of that day. This app also provides the weather information of the next day. For example, if I test the app at afternoon today, we will be provided with the weather information of the place for today morning, afternoon, tonight and also info of tomorrow whole day

WINDOWS PHONE TECHNIQUES: In this particular application techniques of windows phone used are:

1. **Web Services connectivity for collecting weather data from National Weather Service's API.**
2. **Data binding and usage of INotifyPropertyChanged to synchronize the data retrieved.**

HIGH LEVEL ARCHITECTURE OF THE APP:



SCREENCAPTURES OF APP:



Figure 1: Launching screen or first page of the app displaying various cities list in bay area to choose

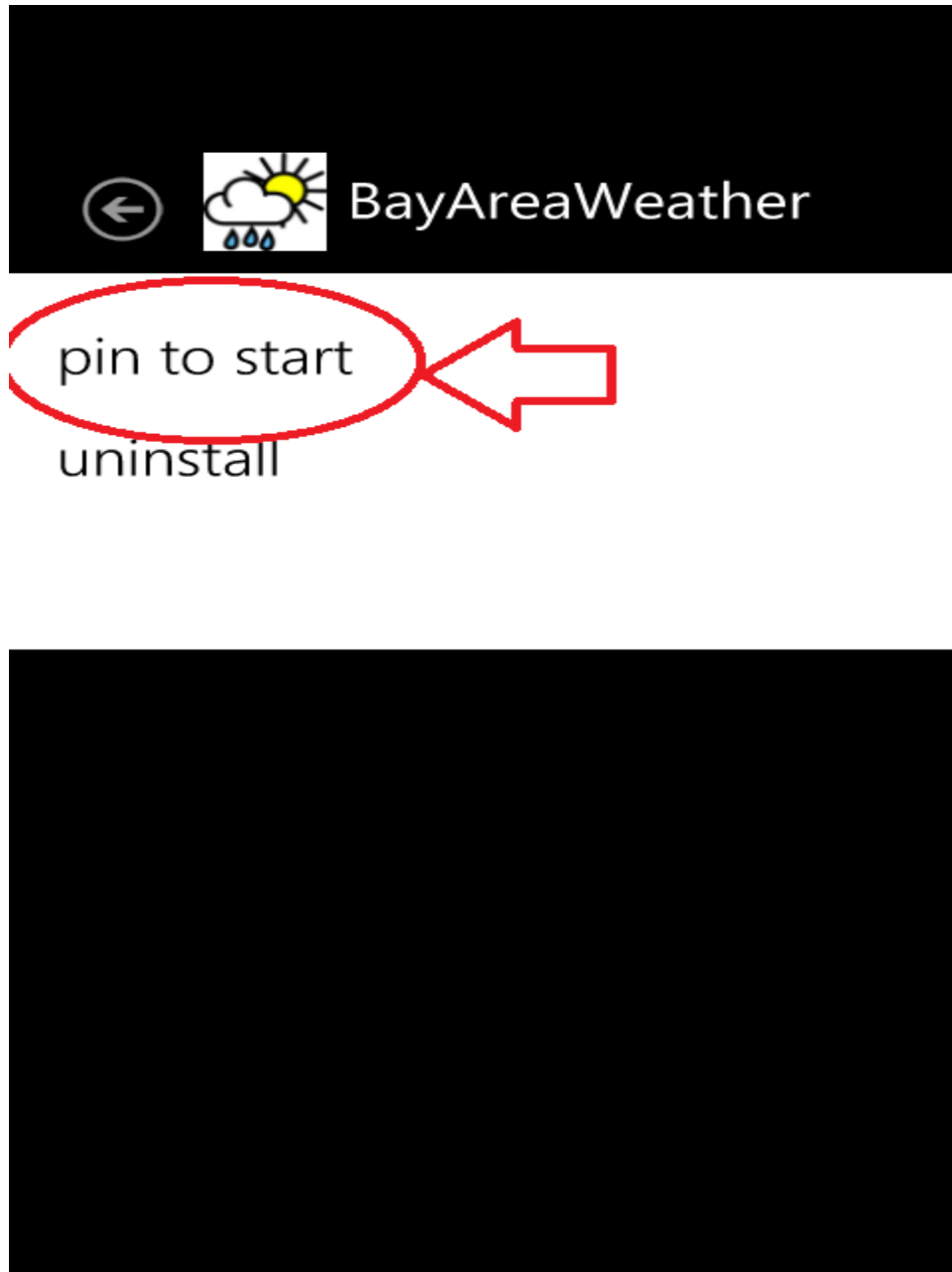


Figure 2: Pinning to start of the bay area weather app after pressing back button

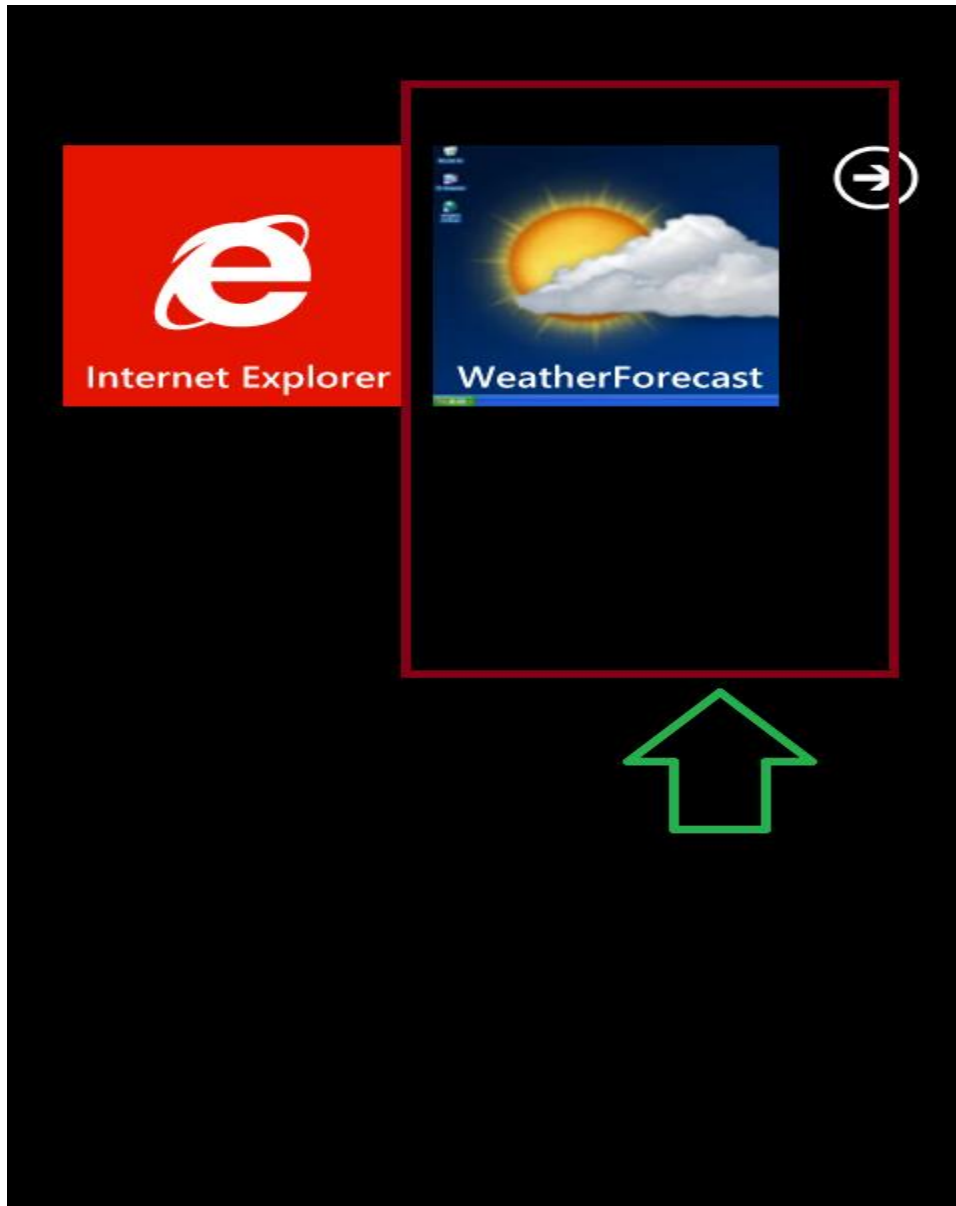


Figure 3: Tile being displayed for weather app after pin to start is done



Figure 4: Selecting Sanfrancicso for knowing the weather of the current day



Weather Forecast

San Francisco

Tonight



Temp 51 Mostly Clear

Mostly clear, with a low around 51.
West wind 5 to 10 mph becoming light
west southwest after midnight.

Sunday



Temp 70 Sunny

Sunny, with a high near 70. Light and
variable wind becoming west 6 to 11
mph in the afternoon.

Sunday Night




Figure 5: Second page which displays the weather in SF for current time and also next 12hrs duration weather




Weather Forecast

Sunnyvale

Tonight 

Temp 44 Partly Cloudy
Partly cloudy, with a low around 44.
West wind 3 to 8 mph.

Sunday 

Temp 78 Becoming Sunny
Partly sunny, then gradually becoming
sunny, with a high near 78. Calm wind
becoming northwest 5 to 8 mph in the
afternoon.


Sunday Night 

Figure 7: Selecting Sunnyvale for knowing the weather of the current day

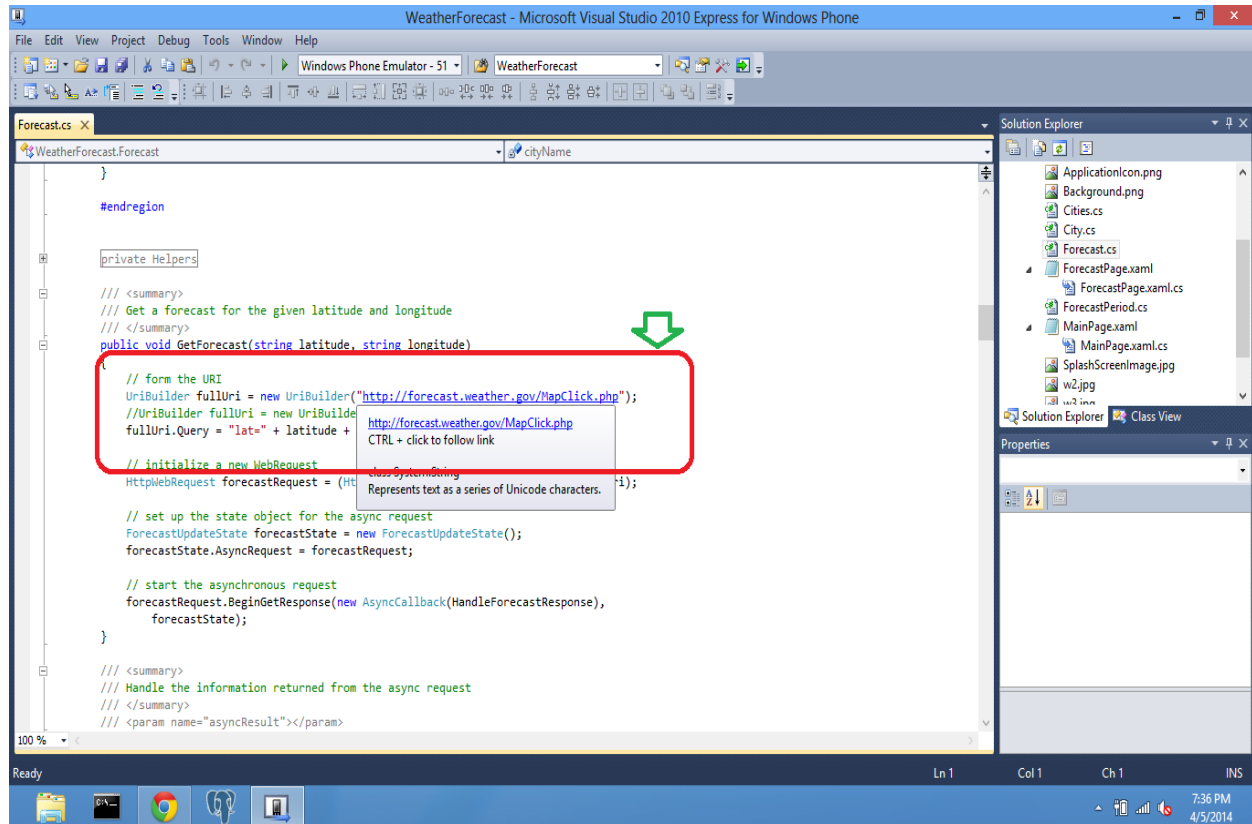


Figure 8: Screen shot of the xaml.cs code which shows the national weather service API connectivity to web services.

TESTING: Black box testing of the functionality of the application is done .Here are the test cases and the test outputs of the testing result.

TestCase 1: Press Back button and long press on the app

TestResult: Pin to start and uninstall app options will be displayed.

TestCase 2: Click on pin to start option on the drop down menu.

TestResult: App is pinned to the start with a live tile display

TestCase 3: Click on the tile of the Bay area weather application

Test Result: It takes you to the first page of the app that has city list in bayarea

TestCase 3: Select a specific city from the list to see the weather over there

Test Result: Selected city weather information is displayed for 2 days