

Project Development Paper
CSC 414 Software Design
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The requirements are the user, program, and a Python interpreter not a compiler to run the code. The program needs the API and API key to get the information from the giving data. Each API key is a unique identifier used to authenticate a user, developer, or calling program to an API. Each key is unique, and you must pay for it or subscribe to the website with email. It important to know when your API is expiring. An active API key is required to run the program successfully. Below is our unique key and the key does not expire so the user will not run into that issue.

```
key = '&appid=fc623e7c1bc984adfa3864bb04c2fc46'
```

The design of this program is functions listed at the top for the selected state and then the while loop while for the user input and API and API key. The program will ask the user to press 1 to exit program. The API will collect the longitude, latitude, main weather, and description of the weather. The program will then go into the if statements, if the state is listed in the if statements the program will run that states function and print the States details. This program will be coded using Phyton. The two programming files we will need for it to run are StubbingProject414SuzanneMoore and mainFile.py.

For testing and obtaining test results for the program is for a user to type in a city and state. If the user enters in bad data in the program, tell the user to try again. Make sure the user can exit the program any time while the program is running. All data should be accurate and neatly delivered to the user. Make sure the program can detect errors and inform the user if an error has occurred. According to the picture below the test results are successful.

Test Results:

```
C:\Users\suzie\anaconda3\envs\StubbingProject414SuzanneMoore\python.exe
--Enter 1 to EXIT program--
Please enter a city: dfasdf
Please enter a state: dsfads
Invalid Choice for state! Please try again or 1 to exit program.
--Enter 1 to EXIT program--
Please enter a city: Waveland
Please enter a state: Mississippi

--Waveland, Mississippi Coordinates--
Longitude: -89.38
Latitude: 30.29

--Waveland, Mississippi Weather--
Mist
mist

--State Mississippi Current Details--
Population: 2,976,149
Income Rank: 50th
Capital: Jackson
Current Governor: Tate Reeves

--Enter 1 to EXIT program--
Please enter a city: 1
You have selected to Exit the program. Goodbye.

Process finished with exit code 0
```