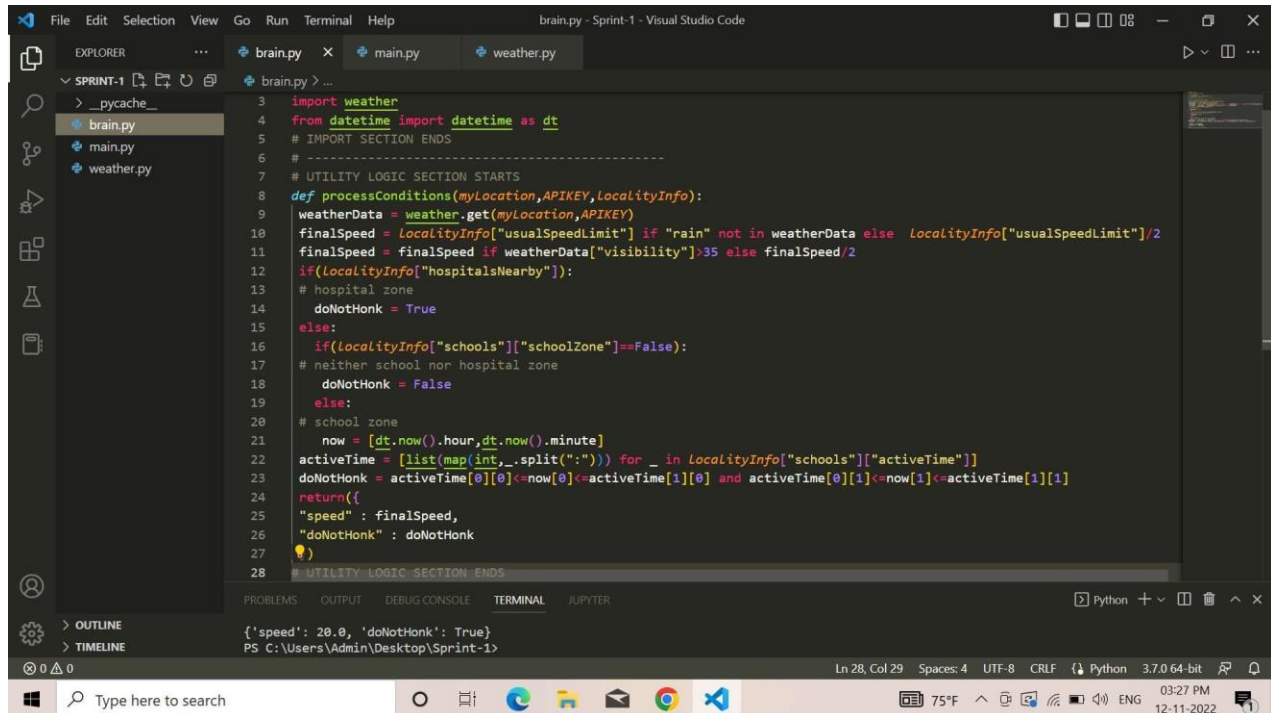


# Project Development Phase

## Sprint-1

### Team ID: PNT2022TMID53733

OUTPUTS:

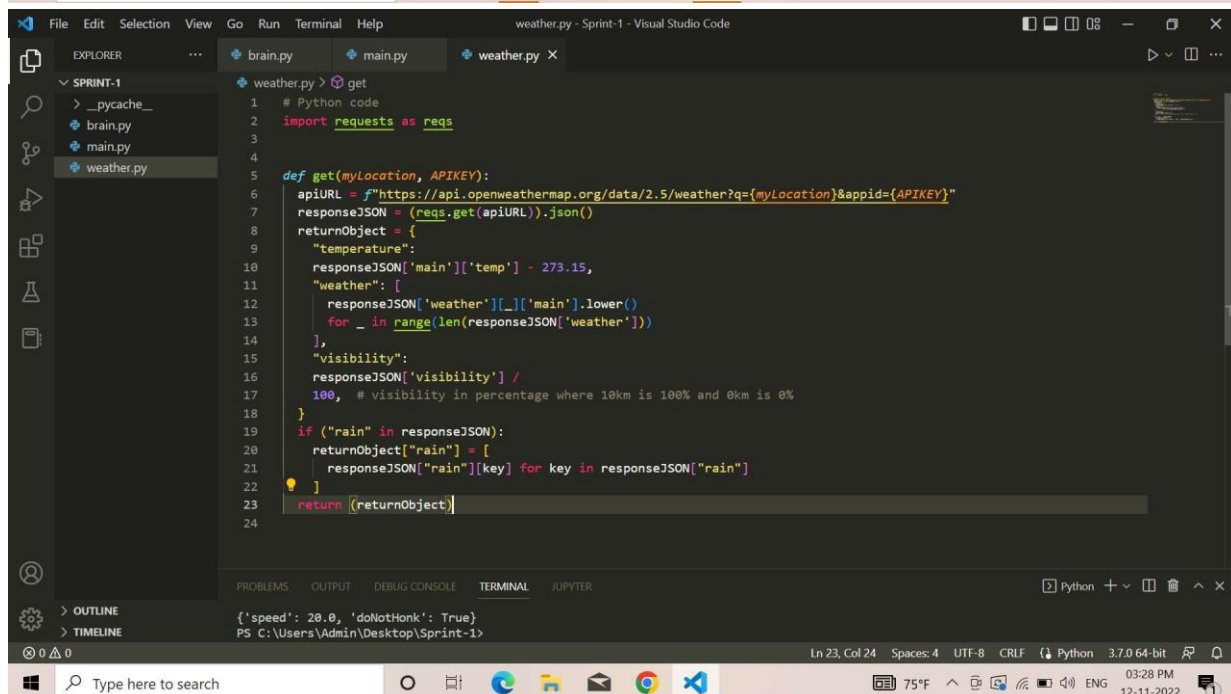


```
3 import weather
4 from datetime import datetime as dt
5 # IMPORT SECTION ENDS
6 # -----
7 # UTILITY LOGIC SECTION STARTS
8 def processConditions(myLocation,APIKEY,LocalityInfo):
9     weatherData = weather.get(myLocation,APIKEY)
10    finalSpeed = LocalityInfo["usualSpeedLimit"] if "rain" not in weatherData else LocalityInfo["usualSpeedLimit"]/2
11    finalSpeed = finalSpeed if weatherData["visibility"]>35 else finalSpeed/2
12    if(LocalityInfo["hospitalsNearby"]):
13        # hospital zone
14        doNotHonk = True
15    else:
16        if(LocalityInfo["schools"]["schoolZone"]==False):
17            # neither school nor hospital zone
18            doNotHonk = False
19        else:
20            # school zone
21            now = [dt.now().hour,dt.now().minute]
22            activeTime = [list(map(int,_.split(":"))) for _ in LocalityInfo["schools"]["activeTime"]]
23            doNotHonk = activeTime[0][0]<now[0]<activeTime[1][0] and activeTime[0][1]<now[1]<activeTime[1][1]
24            return(
25                "speed" : finalSpeed,
26                "doNotHonk" : doNotHonk
27            )
28 # UTILITY LOGIC SECTION ENDS
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER

{'speed': 20.0, 'doNotHonk': True}

PS C:\Users\Admin\Desktop\Sprint-1>



```
1 # Python code
2 import requests as reqs
3
4 def get(myLocation, APIKEY):
5     apiURL = f"https://api.openweathermap.org/data/2.5/weather?q={myLocation}&appid={APIKEY}"
6     responseJSON = (reqs.get(apiURL)).json()
7     returnObject = {
8         "temperature":
9             responseJSON['main']['temp'] - 273.15,
10         "weather": [
11             responseJSON['weather'][_]['main'].lower()
12             for _ in range(len(responseJSON['weather']))
13         ],
14         "visibility":
15             responseJSON['visibility'] /
16             100, # visibility in percentage where 10km is 100% and 0km is 0%
17     }
18     if ("rain" in responseJSON):
19         returnObject["rain"] = [
20             responseJSON["rain"][key] for key in responseJSON["rain"]
21         ]
22     return (returnObject)
23
24
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER

{'speed': 20.0, 'doNotHonk': True}

PS C:\Users\Admin\Desktop\Sprint-1>

```
1 # Python code
2 # IMPORT SECTION STARTS
3 import brain
4 # IMPORT SECTION ENDS
5 # -----
6 # USER INPUT SECTION STARTS
7 myLocation = "Chennai,IN"
8 APIKEY = "c7388b7d0d823ee0ee0be65c6fd40411"
9 localityInfo = {
```

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PS C:\Users\Admin\Desktop\Sprint-1> & c:/Python/Python37/python.exe c:/Users/Admin/Desktop/Sprint-1/main.py  
{'speed': 20.0, 'doNotHonk': True}  
PS C:\Users\Admin\Desktop\Sprint-1>

```
10 "schools": {
11   "schoolZone": True,
12   "activeTime": ["7:00", "17:30"] # schools active from 7 AM till 5:30 PM
13 },
14 "hospitalsNearby": False,
15 "usualSpeedLimit": 40 # in km/hr
16 }
17 # USER INPUT SECTION ENDS
18 # -----
19 # MICRO-CONTROLLER CODE STARTS
20 print(brain.processConditions(myLocation, APIKEY, localityInfo))
```

Windows PowerShell  
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Try the new cross-platform PowerShell <https://aka.ms/pscore6>

PS C:\Users\Admin\Desktop\Sprint-1> & c:/Python/Python37/python.exe c:/Users/Admin/Desktop/Sprint-1/main.py  
{'speed': 20.0, 'doNotHonk': True}  
PS C:\Users\Admin\Desktop\Sprint-1>