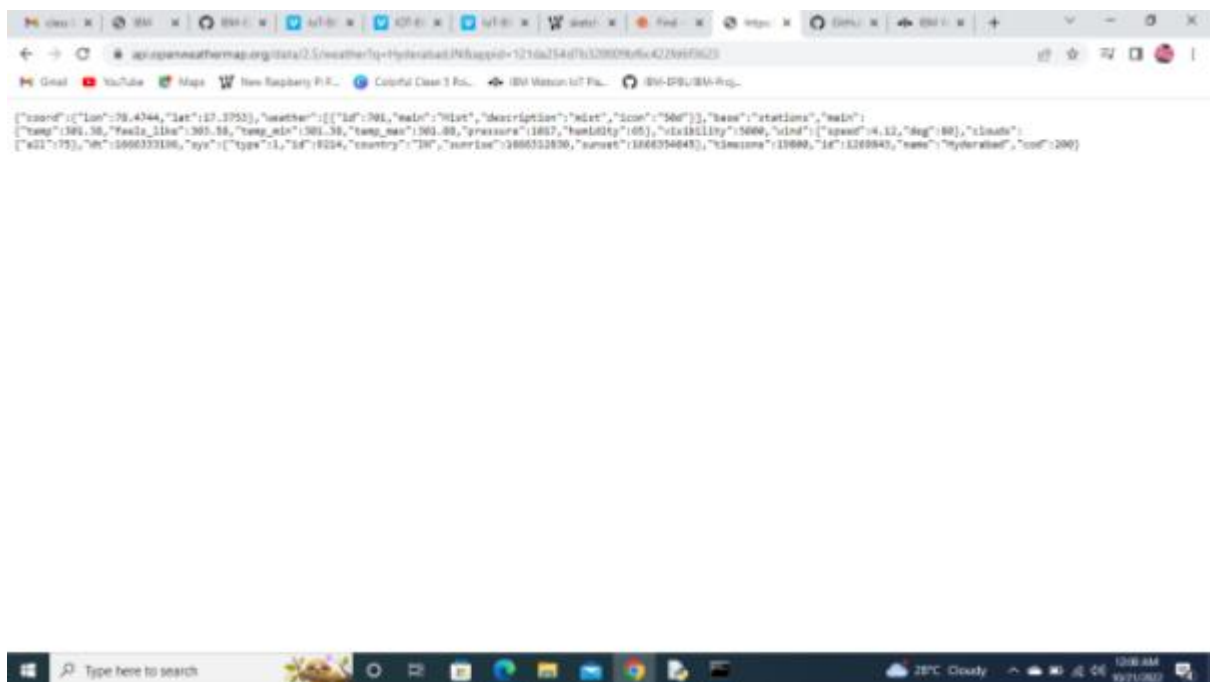


PROJECT PLANNING PHASE

DATE	29 OCTOBER 2022
TEAM ID	PNT2022TMID54446
PROJECT TITLE	Signs with smart connectivity for better road safety

USN-1 Install Watson IoT Python SDK TO Connect to UBM Watson Platform using python:



The screenshot shows a web browser window with a JSON response from a weather API. The JSON data is as follows:

```
[{"coord": {"lon": 78.4344, "lat": 17.3753}, "weather": [{"id": 701, "main": "Rain", "description": "rain", "icon": "50d"}], "base": "stations", "main": {"temp": 30.38, "feels_like": 30.58, "temp_min": 30.38, "temp_max": 30.38, "pressure": 1017, "humidity": 65}, "visibility": 5000, "wind": {"speed": 4.12, "deg": 80}, "clouds": {"all": 75}, "dt": 1666333186, "sys": {"type": 1, "id": 9234, "country": "IN", "sunrise": 1666332636, "sunset": 1666334643}, "timezone": 19800, "lat": 12.68943, "lon": 78.4344, "name": "Hyderabad", "cod": 200}]
```

The Windows taskbar at the bottom shows the system clock as 12:08 AM on 10/29/2022, with a weather forecast of 28°C Cloudy.

```
api.openweathermap.org/data/2.5/weather?q=Hyderabad&appid=121da154d763100091fc822f6b73621

import requests
api_data="http://api.openweathermap.org/data/2.5/weather?q=Hyderabad,IN&appid=121da154d763100091fc822f6b73621"
data=requests.get(api_data)
data=json.loads(data)

print(data)

Python 3.10.8 (tags/v3.10.8:1aa4501, Oct 10 2022, 14:00:00) [AMD64] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: In Python/Python310/venv.py =====
>>> print(data)
{'coord': {'lon': 78.4744, 'lat': 17.3753}, 'weather': [{'id': 721, 'main': 'Haze', 'description': 'haze', 'icon': '500'}], 'base': 'stations', 'main': {'temp': 301.35, 'feels_like': 301.07, 'temp_min': 301.35, 'temp_max': 301.35, 'pressure': 1017, 'humidity': 81}, 'visibility': 1000, 'wind': {'speed': 3.6, 'deg': 90}, 'clouds': {'all': 40}, 'dt': 1668326428, 'sys': {'type': 1, 'id': 8214, 'country': 'IN', 'sunrise': 166832836, 'sunset': 166834845, 'timezone': 19000, 'id': 1216043, 'name': 'Hyderabad', 'cod': 200}}
```

```
api.openweathermap.org/data/2.5/weather?q=Hyderabad&appid=121da154d763100091fc822f6b73621

import requests
api_data="http://api.openweathermap.org/data/2.5/weather?q=Hyderabad,IN&appid=121da154d763100091fc822f6b73621"
data=requests.get(api_data)
data=json.loads(data)
print(data)

Python 3.10.8 (tags/v3.10.8:1aa4501, Oct 11 2022, 10:50:30) [AMD64] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> import requests
>>> api_data="http://api.openweathermap.org/data/2.5/weather?q=Hyderabad,IN&appid=121da154d763100091fc822f6b73621"
>>> data=requests.get(api_data)
>>> data=json.loads(data)
>>> print(data)
{'coord': {'lon': 78.4744, 'lat': 17.3753}, 'weather': [{'id': 721, 'main': 'Haze', 'description': 'haze', 'icon': '500'}], 'base': 'stations', 'main': {'temp': 301.35, 'feels_like': 301.07, 'temp_min': 301.35, 'temp_max': 301.35, 'pressure': 1017, 'humidity': 81}, 'visibility': 1000, 'wind': {'speed': 3.6, 'deg': 90}, 'clouds': {'all': 40}, 'dt': 1668326428, 'sys': {'type': 1, 'id': 8214, 'country': 'IN', 'sunrise': 166832836, 'sunset': 166834845, 'timezone': 19000, 'id': 1216043, 'name': 'Hyderabad', 'cod': 200}}
```

USN-2 Create An Account In Open weather Map Website:

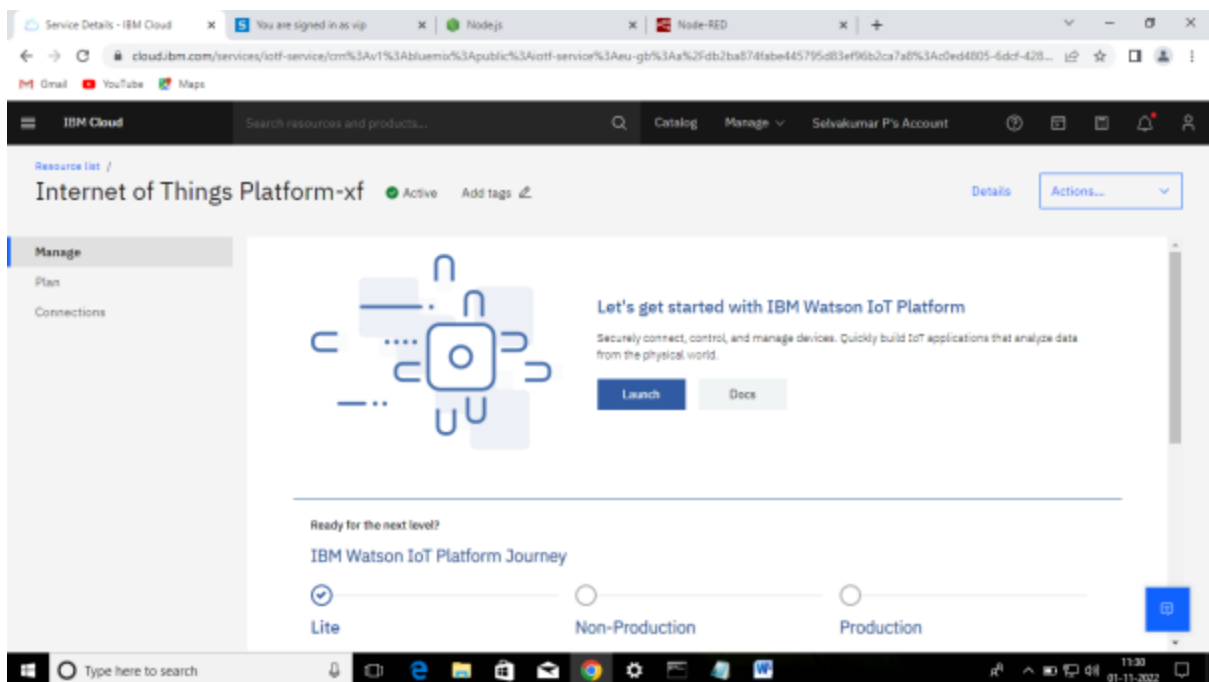
The first screenshot shows the OpenWeatherMap website's API key generation page. The page has a dark header with the OpenWeatherMap logo and navigation links. A red banner at the top states: "You have to verify your email to use OpenWeatherMap services. Please [click here](#) to get an email with the confirmation link." Below this, there are tabs for "New Products", "Services", "API keys", "Billing plans", "Payments", "Block logs", "My orders", "My profile", and "Ask a question". A light blue box informs the user: "You can generate as many API keys as needed for your subscription. We accumulate the total cost from all of them." The main content area features a table with columns "Key", "Name", "Status", and "Actions". It lists two keys: "Default" (Active) and "Channel" (Active). To the right, there is a "Create key" section with an "API key name" input field and a "Generate" button.

The second screenshot shows the OpenWeatherMap website's weather forecast page for Hyderabad. The page has a dark header with the OpenWeatherMap logo and navigation links. The main heading is "Weather in your city". Below this, there is a search bar with "hyderabad" entered and a "Search" button. The search results show three weather forecasts for Hyderabad, IN, with details on temperature, wind, clouds, and geo-coordinates.

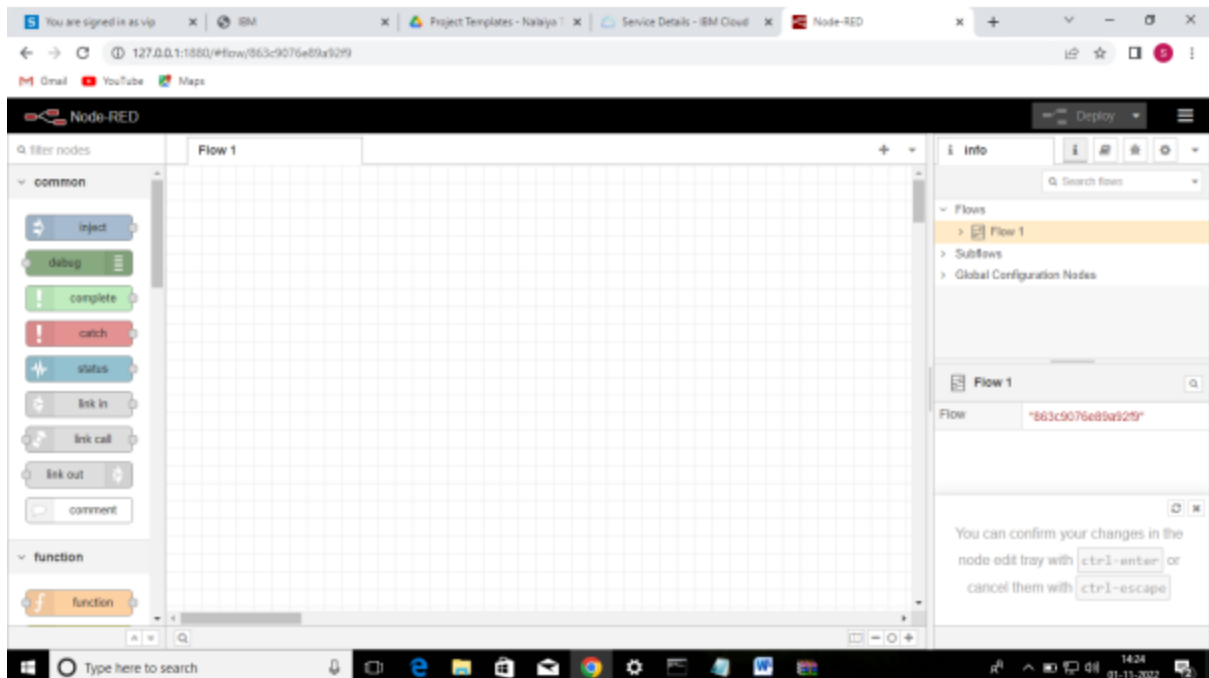
City	Temperature	Wind	Clouds	Geo-coords
Hyderabad, IN	26.2 to 28.7 °C	4.12 m/s	75 %	(17.3753, 78.4746)
Hyderabad, PK	32.6 to 32.6 °C	1.69 m/s	0 %	(25.3409, 68.3727)
Hyderabad, IN	27.6 to 28.1 °C	4.12 m/s	60 %	

USN-3 IBM Cloud Services:

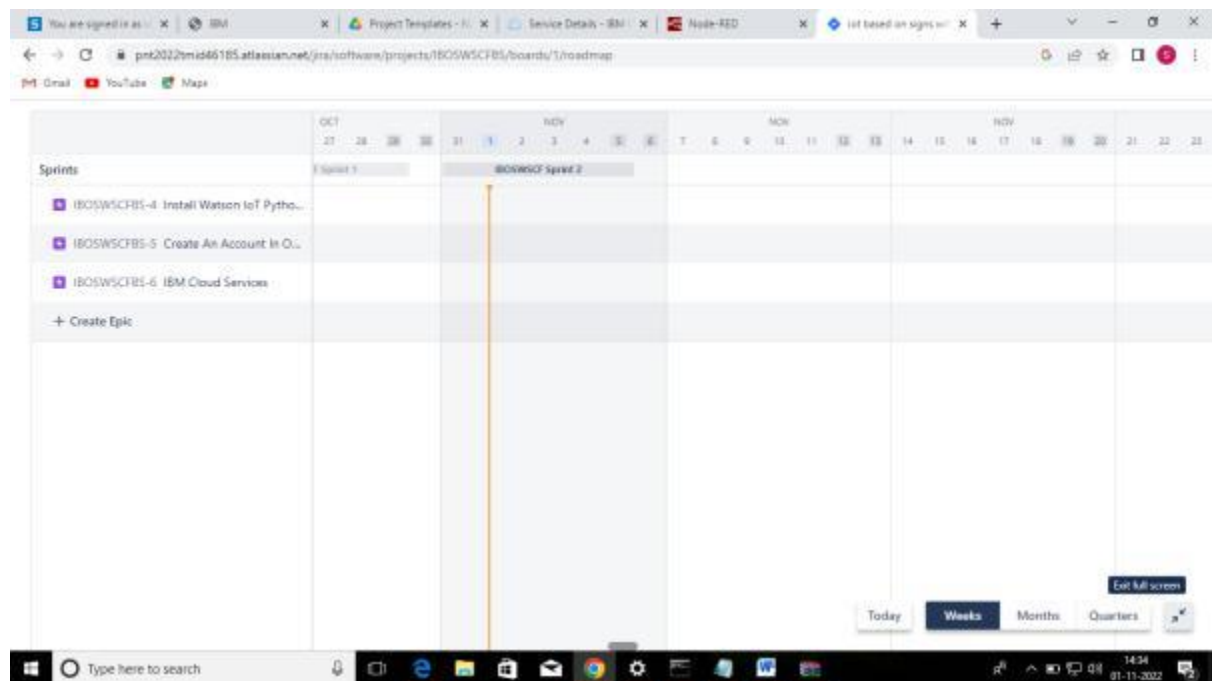
IBM Watson IoT platform



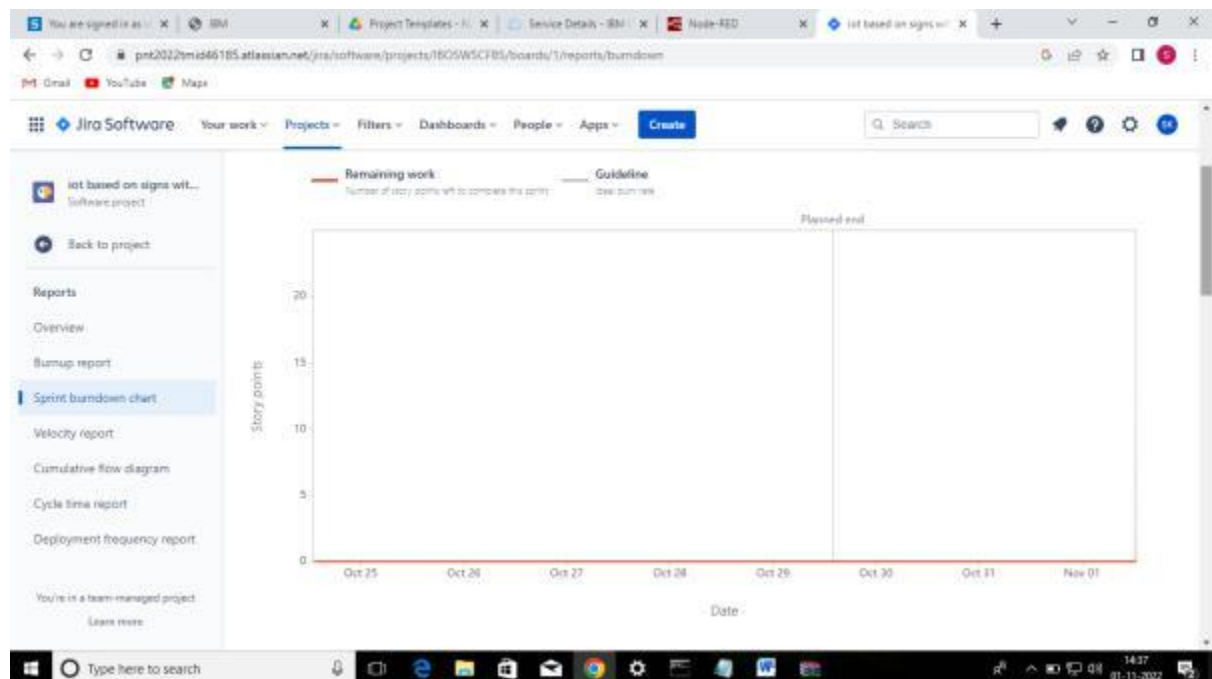
Node-Red Service



ROADMAP:



BURNDOWN CHART:



VELOCITY REPORT:

