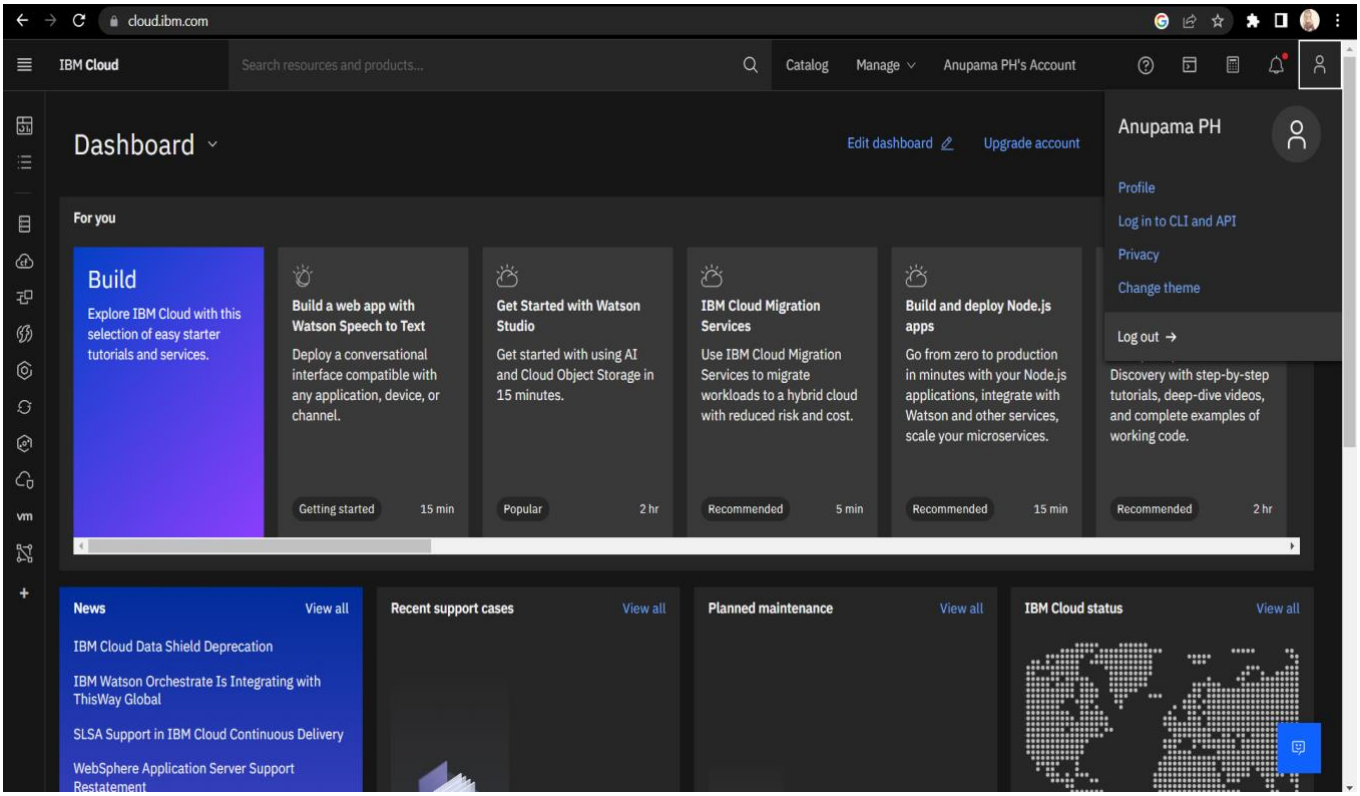
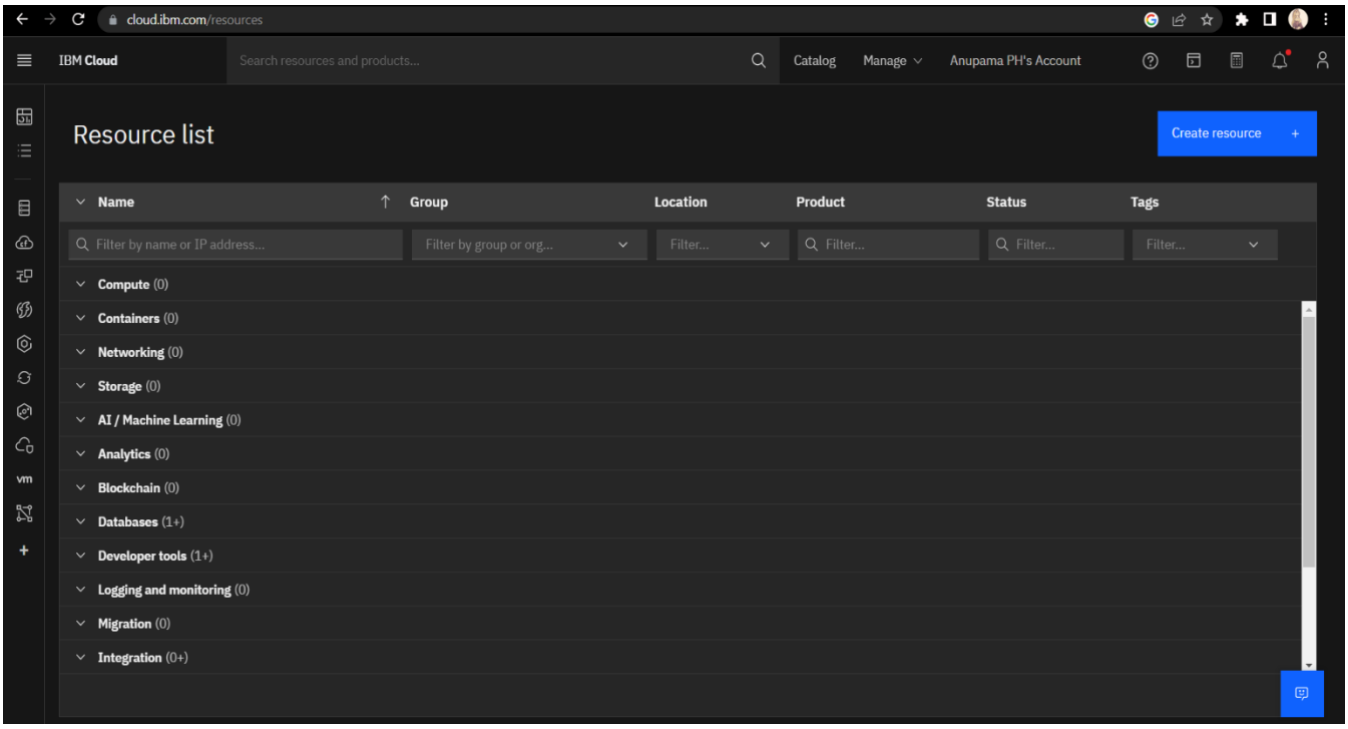
Sprint-1

Date	17 November 2022
Team ID	PNT2022TMID27330
Project Name	Project: Signs with Smart Connectivity for Better Road Safety
Marks	20 Marks

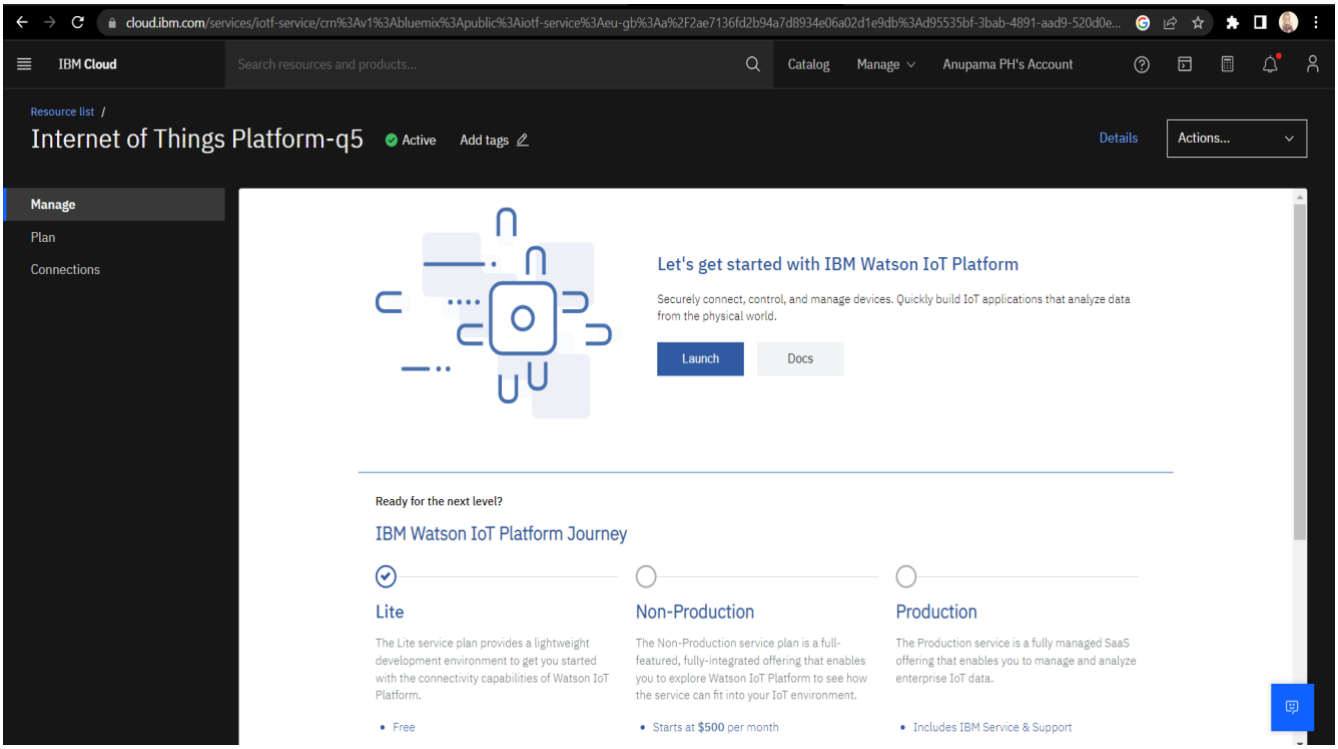
US-1: Create the IBM Cloud services which are being used in this project.



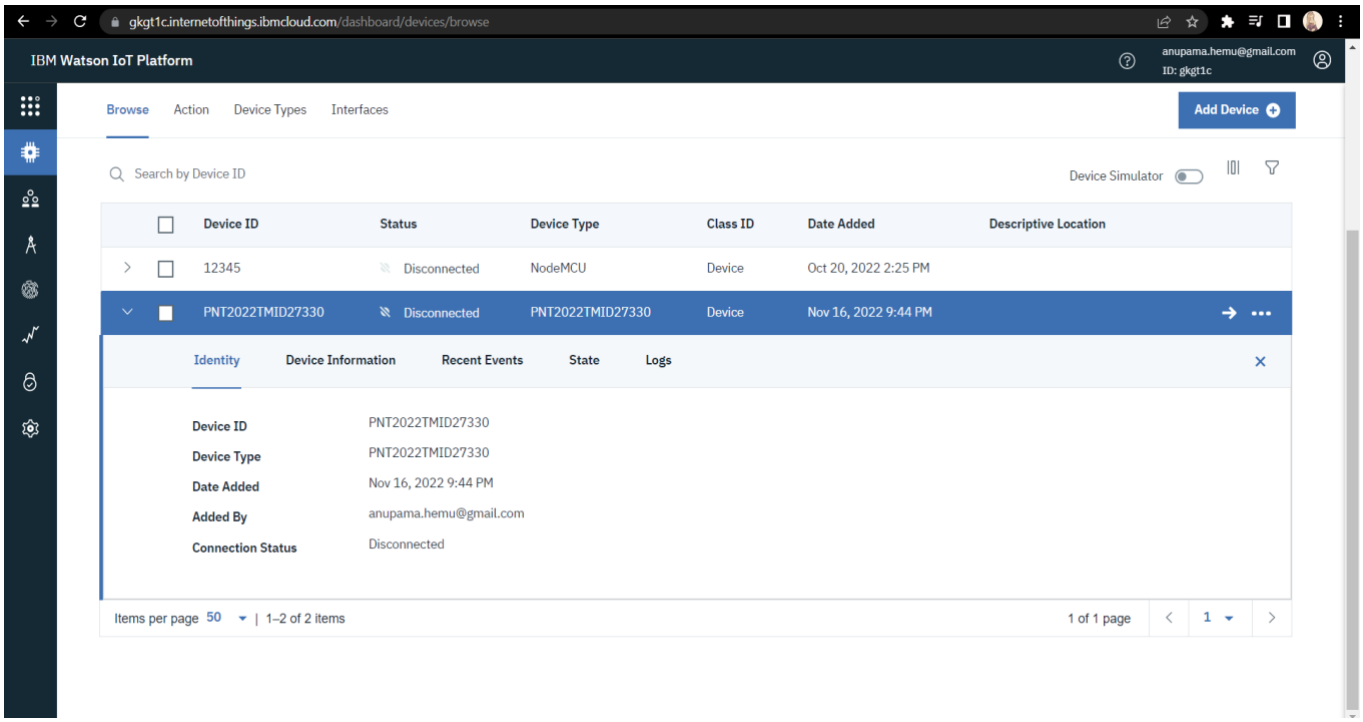
US-2: Configure the IBM Cloud service which are being used in completing this project.

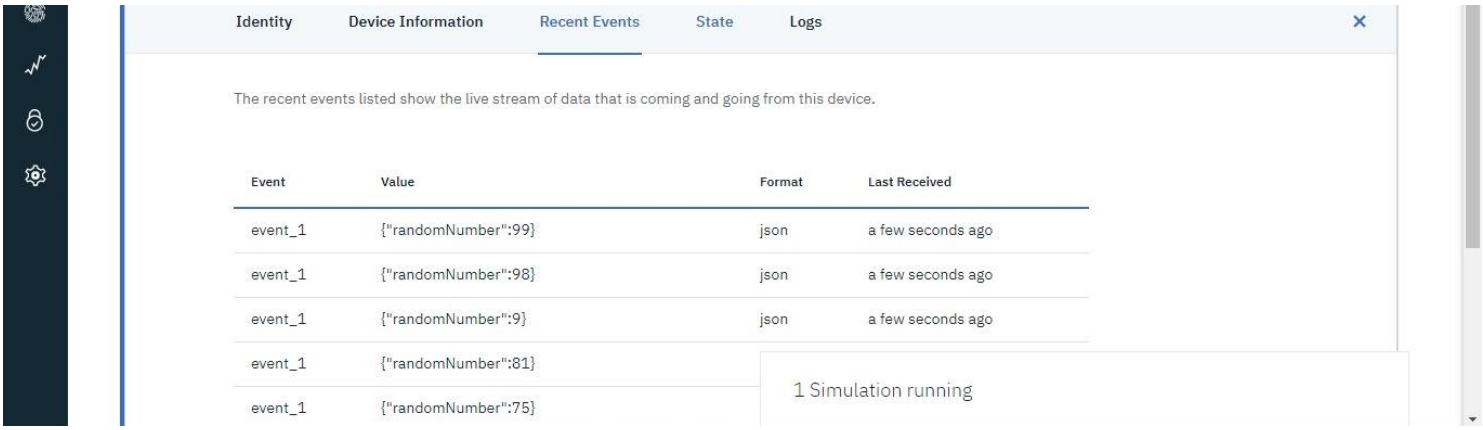


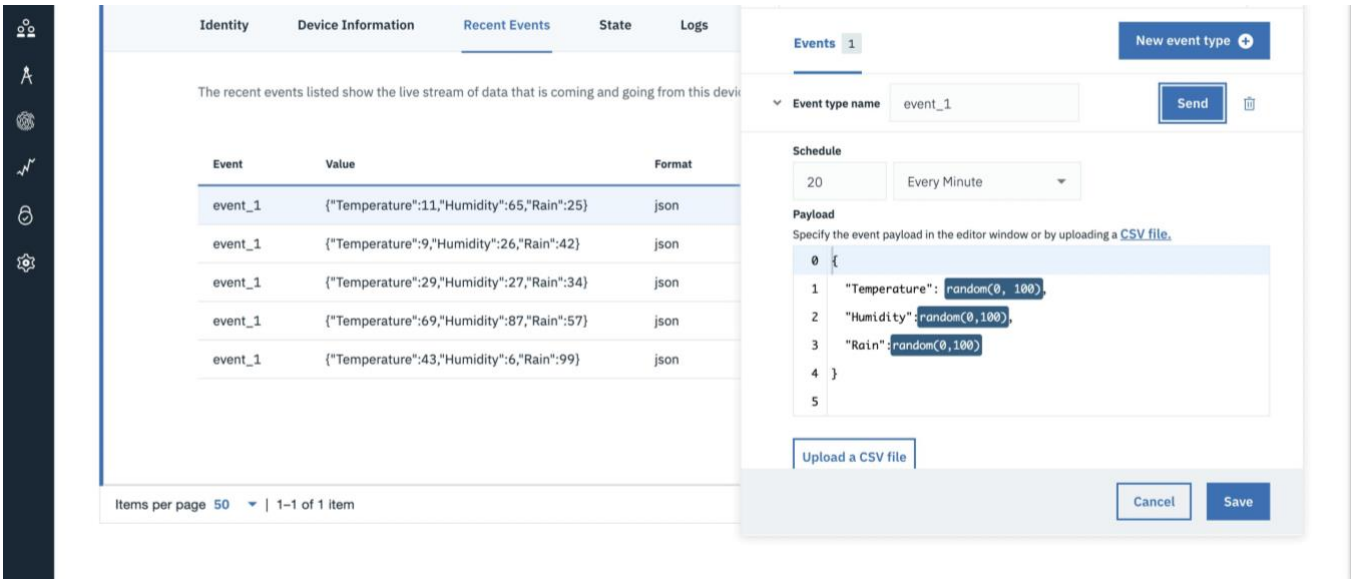
US-3: IBM Watson IoT Platform acts as a mediator to connect the web application to IoT devices, so create the IBM Watson IoT platform.

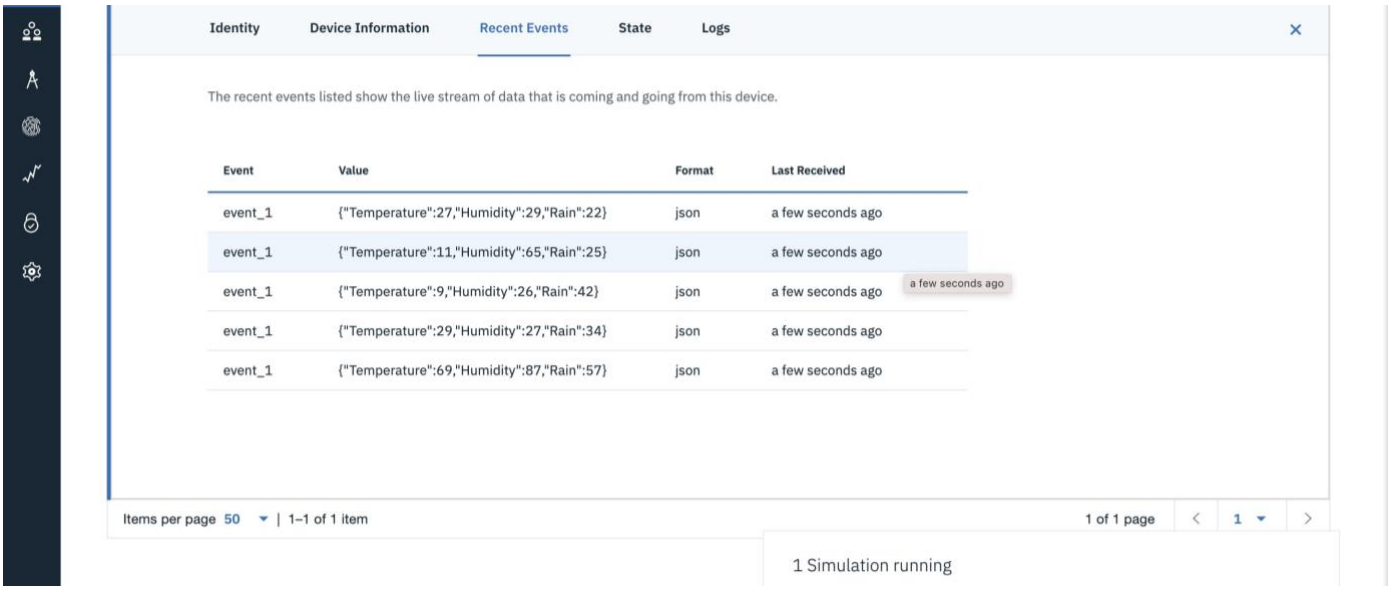


US-4: In order to connect the IoT device to the IBM Cloud, create a device in IBM Watson IoT platform and get device credentials.










```
# Python code

import requests as reqs

def get(myLocation,APIKEY):
    apiURL = f"https://api.openweathermap.org/data/2.5/weather?q={myLocation}&appid={APIKEY}"
    responseJSON = (reqs.get(apiURL)).json()
    returnObject = {
        "temperature" : responseJSON['main']['temp'] - 273.15,
      "weather" : [responseJSON['weather'][_]['main'].lower() for _ in range(len(responseJSON['weather']))],
     "visibility" : responseJSON['visibility']/100, # visibility in percentage where 10km is 100% and 0km is 0%
}
if("rain" in responseJSON):
   returnObject["rain"] = [responseJSON["rain"][key] for key in responseJSON["rain"]]
return(returnObject)
```

```
# Python code

 # IMPORT SECTION STARTS

 import brain

 # IMPORT SECTION ENDS
 # ---------------------------------------------
# USER INPUT SECTION STARTS

 myLocation = "Chennai,IN"
APIKEY = "9cd610e5fd400c74212074c7ace0d62c"
 localityInfo = {
 "schools" : {
"schoolZone" : True,
 "activeTime" : ["7:00","17:30"] # schools active from 7 AM till 5:30 PM
 },
"hospitalsNearby" : False,
 "usualSpeedLimit" : 40 # in km/hr
 }
# USER INPUT SECTION ENDS
 # ---------------------------------------------
# MICRO-CONTROLLER CODE STARTS

print(brain.processConditions(myLocation,APIKEY,localityInfo))
```