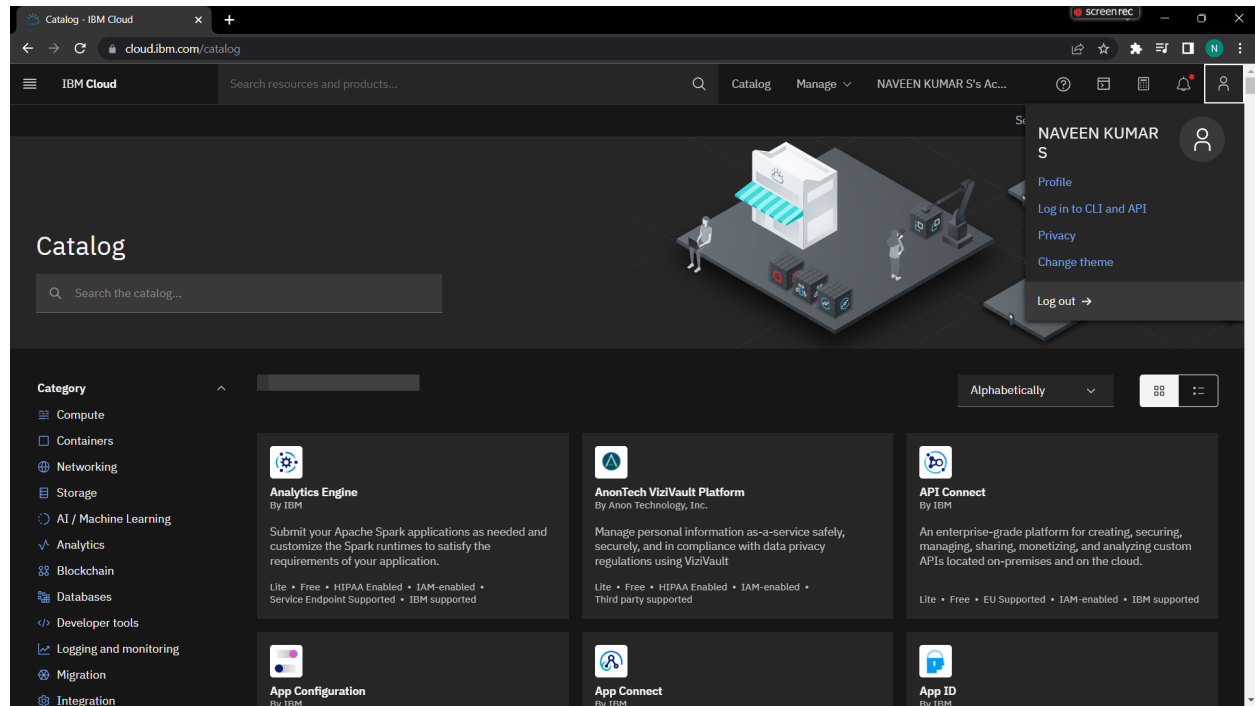


SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITAN CITIES

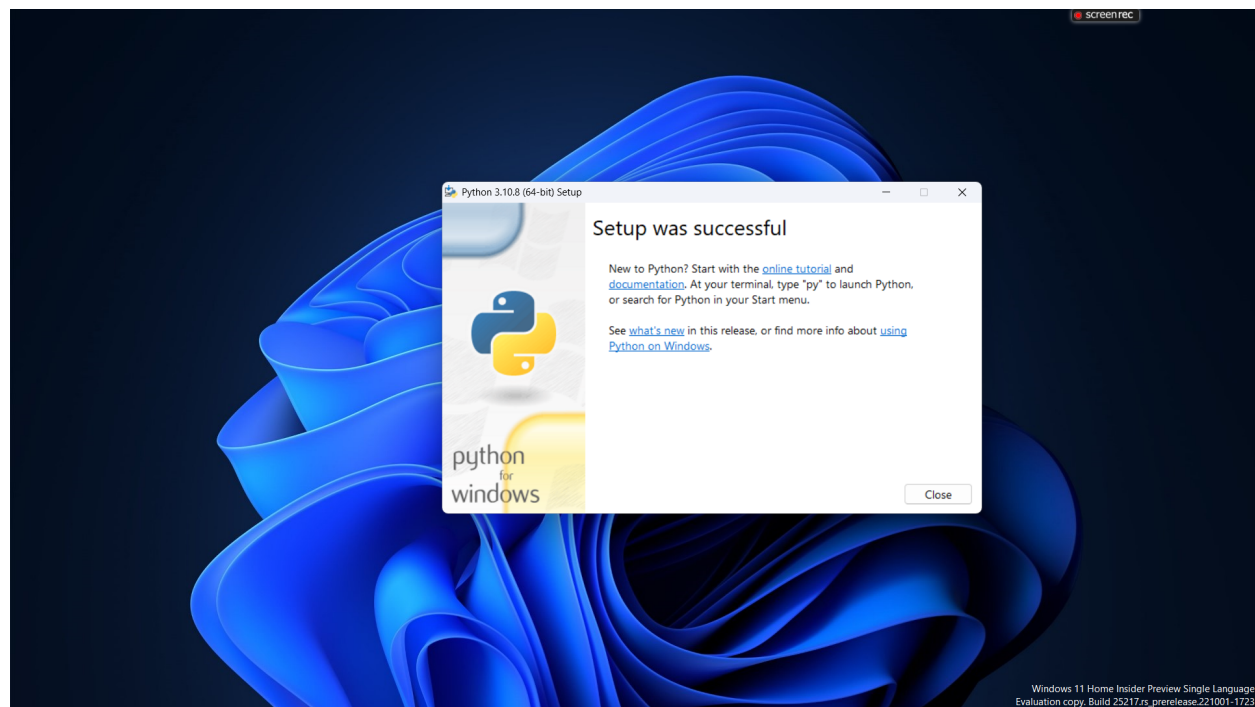
TEAM LEADER : NITHINKIRTHICK E
TEAM MEMBER 1 : BUVANESH NACHIAPPAN B
TEAM MEMBER 2 : NAVEEN KUMAR S
TEAM MEMBER 3 : SARANKUMAR K

Prerequisites

Create an IBM Cloud Account



Install the Python IDE



Install Watson IoT Python SDK to connect to IBM Watson IoT Platform using python code: pip install wiotp-sdk

```

C:\Users\ilove>pip install wiotp-sdk
Collecting wiotp-sdk
  Downloading wiotp-sdk-0.11.0.tar.gz (96 kB)
    96.2/96.2 kB 1.1 MB/s eta 0:00:00
  Preparing metadata (setup.py) ... done
Collecting iso8601<=1.1.2
  Downloading iso8601-1.1.0-py3-none-any.whl (9.9 kB)
Collecting pytz>=2018.9
  Downloading pytz-2022.4-py2.py3-none-any.whl (500 kB)
    500.8/500.8 kB 1.7 MB/s eta 0:00:00
Collecting pyyaml<=3.13
  Downloading PyYAML-6.0-cp310-cp310-win_amd64.whl (151 kB)
    151.7/151.7 kB 1.5 MB/s eta 0:00:00
Collecting paho-mqtt<=1.5.0
  Downloading paho-mqtt-1.6.1.tar.gz (99 kB)
    99.4/99.4 kB 1.1 MB/s eta 0:00:00
  Preparing metadata (setup.py) ... done
Collecting requests>=2.21.0
  Downloading requests-2.28.1-py3-none-any.whl (62 kB)
    62.8/62.8 kB 1.1 MB/s eta 0:00:00
Collecting requests_toolbelt>=0.8.0
  Downloading requests_toolbelt-0.10.0-py2.py3-none-any.whl (54 kB)
    54.4/54.4 kB 236.3 kB/s eta 0:00:00
Collecting urllib3<1.27,>=1.21.1
  Downloading urllib3-1.26.12-py2.py3-none-any.whl (140 kB)
    140.4/140.4 kB 1.2 MB/s eta 0:00:00
Collecting charset-normalizer<3,>=2
  Downloading charset-normalizer-2.1.1-py3-none-any.whl (39 kB)
Collecting idna<4,>=2.5
  Downloading idna-3.4-py3-none-any.whl (61 kB)
    61.5/61.5 kB 814.3 kB/s eta 0:00:00
Collecting certifi>=2017.4.17
  Downloading certifi-2022.9.24-py3-none-any.whl (161 kB)
    161.1/161.1 kB 1.9 MB/s eta 0:00:00
Using legacy 'setup.py install' for wiotp-sdk, since package 'wheel' is not installed.
Using legacy 'setup.py install' for paho-mqtt, since package 'wheel' is not installed.
Installing collected packages: pytz, paho-mqtt, urllib3, pyyaml, iso8601, idna, charset-normalizer, certifi, requests, requests_toolbelt, wiotp-sdk
  Running setup.py install for paho-mqtt ... done
  Running setup.py install for wiotp-sdk ... done
Successfully installed certifi-2022.9.24 charset-normalizer-2.1.1 idna-3.4 iso8601-1.1.0 paho-mqtt-1.6.1 pytz-2022.4 pyyaml-6.0 requests-2.28.1 requests_toolbelt-0.10.0 u
rllib3-1.26.12 wiotp-sdk-0.11.0
  
```

Create a fast SMS service for sending the messages and getting the API:

The screenshot displays the Fast2SMS Developer API dashboard. The top navigation bar includes the Fast2SMS logo, a balance of ₹55.00, and an 'ADD CREDIT' button. The main content area is titled 'API Authorization Key' and shows a key created on 13-10-2022 at 04:46:14 PM. The key is: hOVz4uoLccM5Km9gYJjd28NEk3qxDSyUwifGes7i0QPTH6. Below the key, there is a section for 'API Key Status' with 'Enable' and 'Disable' buttons, and a 'Re-Generate API Key' button. A 'To Read API Documentation' section with a 'CLICK HERE' button is also present. A sidebar on the left lists various services like Bulk SMS, DLT SMS, Quick SMS, Address Book, Delivery Reports, Transactions, Dev API, Settings, and Help. A support chat window is open in the bottom right corner.