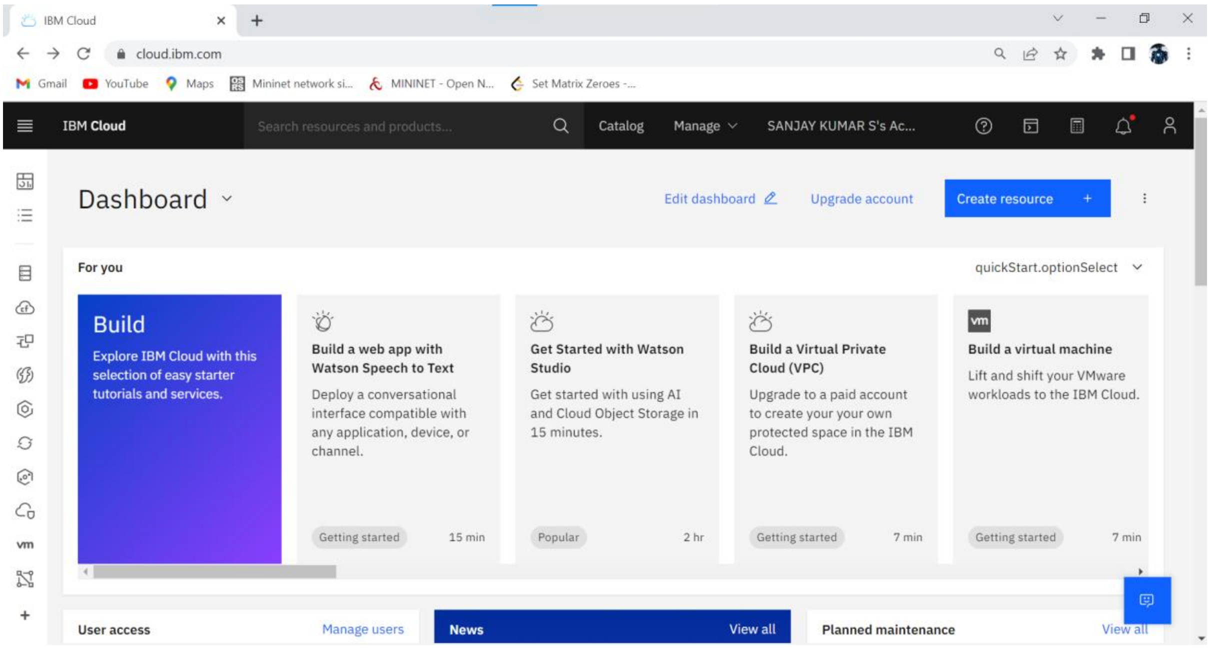
# Train the model on IBM

| | |
|---|---|
| Team ID | PNT2022TMID35762 |
| Project Name | DEMANDEST – AI POWERED FOOD DEMAND FORECASTER |

## IBM Cloud Dashboard:



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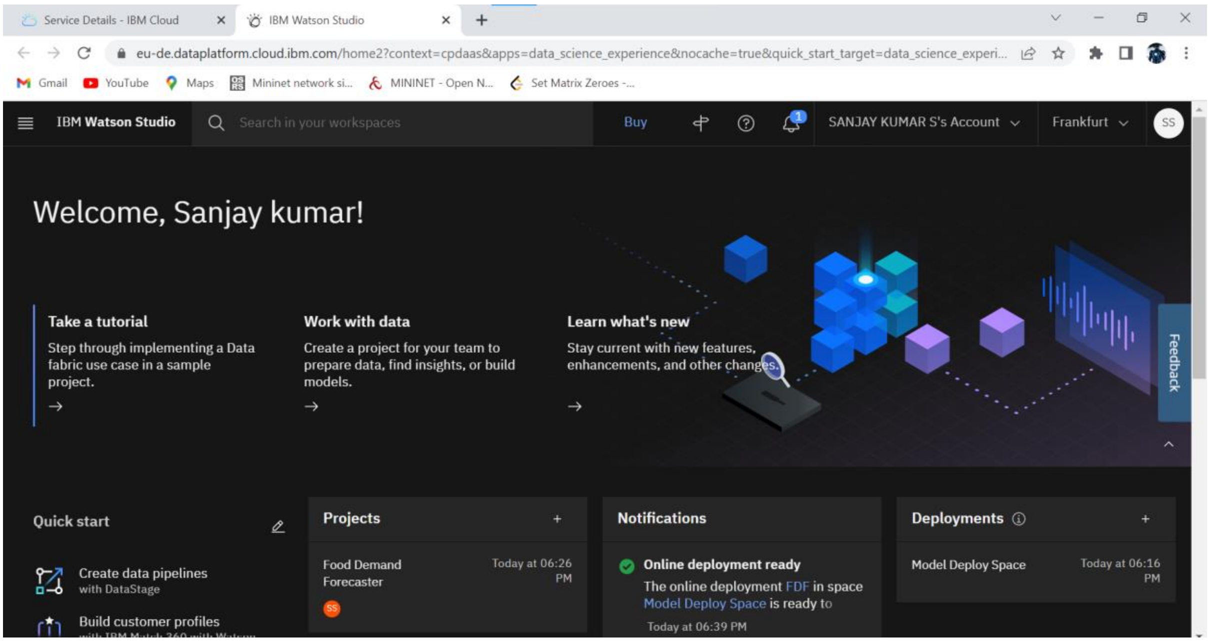
Service Details - IBM Cloud
IBM Watson Studio
eu-de.dataplatform.cloud.ibm.com/home2?context=cpdaas&apps=data_science_experience&nocache=true&quick_start_target=data_science_experi...
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Projects

Food Demand Forecaster — Today at 06:26 PM

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Online deployment ready

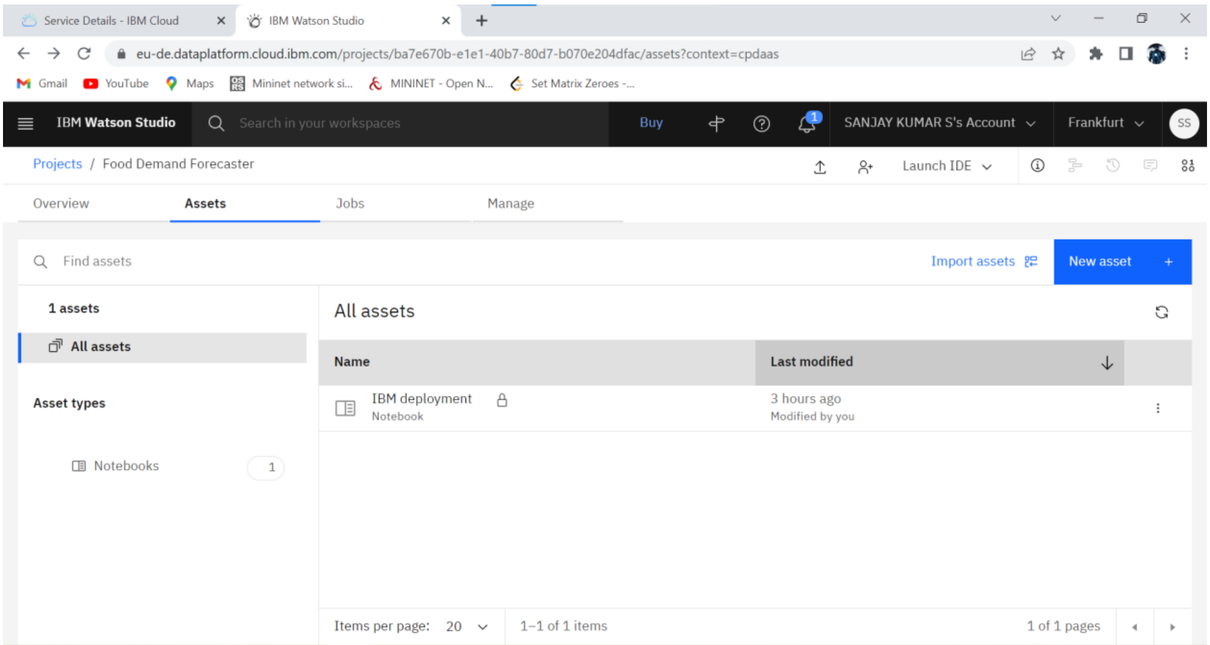
The online deployment FDF in space Model Deploy Space is ready to

Today at 06:39 PM

Deployments

Model Deploy Space — Today at 06:16 PM

# Deployed Model:



eu-de.dataplatform.cloud.ibm.com/projects/ba7e670b-e1e1-40b7-80d7-b070e204dfac/assets?context=cpdaas

Projects / Food Demand Forecaster

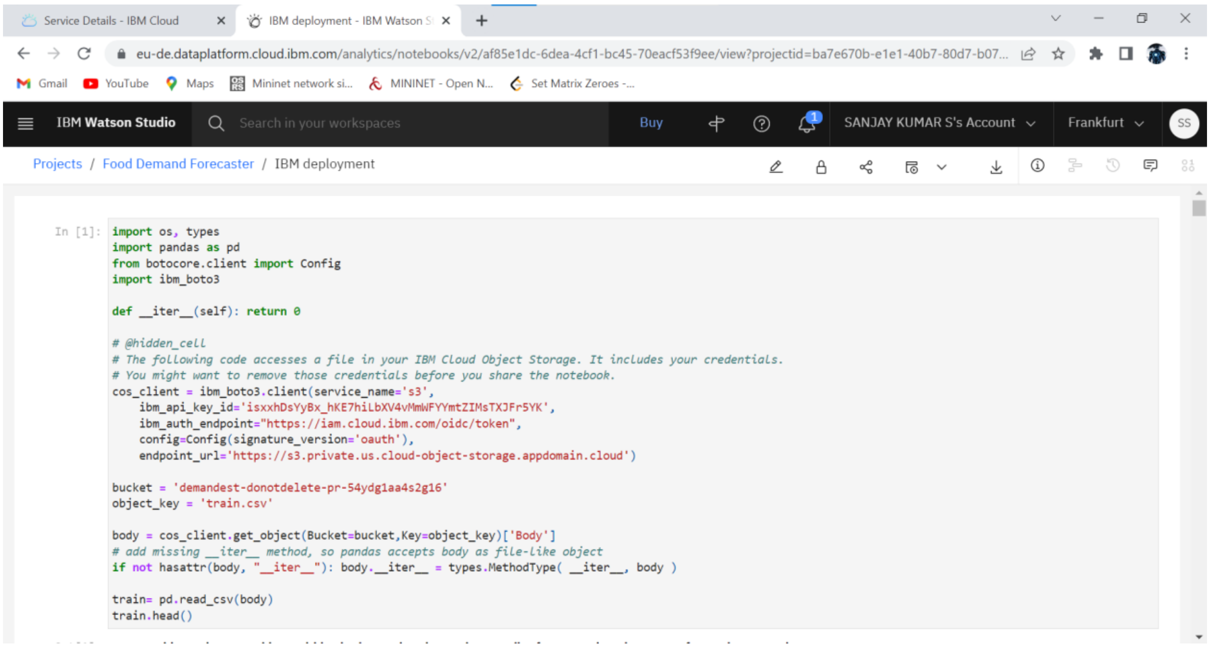
1 assets

All assets

| Name | Last modified |
|---|---|
| IBM deployment<br>Notebook | 3 hours ago<br>Modified by you |

Items per page: 20 1–1 of 1 items 1 of 1 pages

# Deployed code:

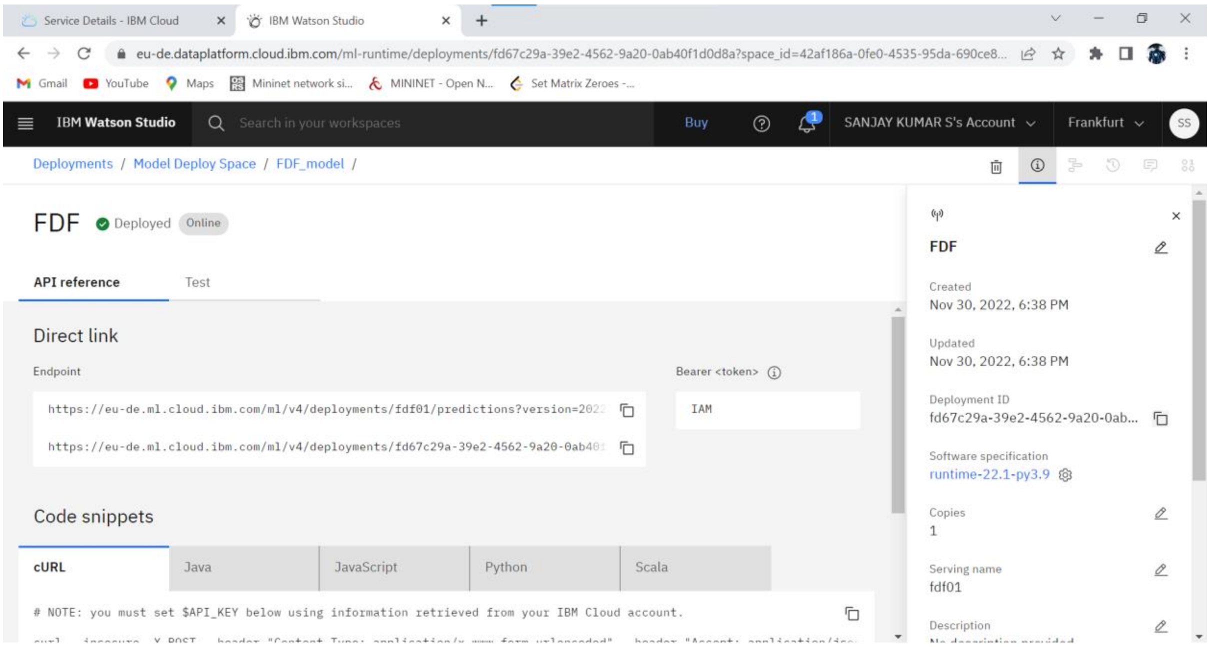


eu-de.dataplatform.cloud.ibm.com/analytics/notebooks/v2/af85e1dc-6dea-4cf1-bc45-70eacf53f9ee/view?projectid=ba7e670b-e1e1-40b7-80d7-b07...

Projects / Food Demand Forecaster / IBM deployment

```
In [1]: import os, types
        import pandas as pd
        from botocore.client import Config
        import ibm_boto3

        def __iter__(self): return 0

        # @hidden_cell
        # The following code accesses a file in your IBM Cloud Object Storage. It includes your credentials.
        # You might want to remove those credentials before you share the notebook.
        cos_client = ibm_boto3.client(service_name='s3',
            ibm_api_key_id='isxxhDsYyBx_hKE7hiLbXV4vMmWFYYmtZIMsTXJFr5YK',
            ibm_auth_endpoint="https://iam.cloud.ibm.com/oidc/token",
            config=Config(signature_version='oauth'),
            endpoint_url='https://s3.private.us.cloud-object-storage.appdomain.cloud')

        bucket = 'demandest-donotdelete-pr-54ydg1aa4s2g16'
        object_key = 'train.csv'

        body = cos_client.get_object(Bucket=bucket,Key=object_key)['Body']
        # add missing __iter__ method, so pandas accepts body as file-like object
        if not hasattr(body, "__iter__"): body.__iter__ = types.MethodType( __iter__, body )

        train= pd.read_csv(body)
        train.head()
```

## Deployment ID & Endpoint:


Service Details - IBM Cloud
IBM Watson Studio
eu-de.dataplatform.cloud.ibm.com/ml-runtime/deployments/fd67c29a-39e2-4562-9a20-0ab40f1d0d8a?space_id=42af186a-0fe0-4535-95da-690ce8...
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YouTube
Maps
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Frankfurt
SS
Deployments / Model Deploy Space / FDF_model /
API reference
Test
cURL
Java
JavaScript
Python
Scala

FDF Deployed Online

Direct link

Endpoint

```
https://eu-de.ml.cloud.ibm.com/ml/v4/deployments/fdf01/predictions?version=2022
https://eu-de.ml.cloud.ibm.com/ml/v4/deployments/fd67c29a-39e2-4562-9a20-0ab40
```

Bearer <token>

IAM

Code snippets

```
# NOTE: you must set $API_KEY below using information retrieved from your IBM Cloud account.
```

FDF

Created
Nov 30, 2022, 6:38 PM

Updated
Nov 30, 2022, 6:38 PM

Deployment ID
fd67c29a-39e2-4562-9a20-0ab...

Software specification
runtime-22.1-py3.9

Copies
1

Serving name
fdf01

Description

## app_ibm.py:

```
import pandas as pd

import numpy as np

import pickle

import os

import requests


API_KEY = "v3n6gq55C00788iHyYsU0cm1GG__LDIaxvhoZT6hB79m"

token_response = requests.post('https://iam.cloud.ibm.com/identity/token',
data={"apikey":

 API_KEY, "grant_type": 'urn:ibm:params:oauth:grant-type:apikey'})

mltoken = token_response.json()["access_token"]


header = {'Content-Type': 'application/json', 'Authorization': 'Bearer ' + mltoken}


from flask import Flask,request, render_template

app=Flask(__name__,template_folder="templates")

@app.route('/')
```

```
def index():
    return render_template('index.html')
@app.route('/index')
def about():
    return render_template('index.html')
@app.route('/index1')
def page():
    return render_template('predict.html',prediction_text=0)
@app.route('/predict', methods=['GET', 'POST'])
def predict():
    print("[INFO] loading model...")
    input_features = [float(x) for x in request.form.values()]
    print(input_features)
    features_value = [[np.array(input_features)]]
    print(features_value)

    payload_scoring = {"input_data":[{"field": [['homepage_featured', 'emailer_for_promotion', 'op_area', 'cuisine','city_code', 'region_code', 'category']],"values": [input_features]}]}
    response_scoring = requests.post('https://eu-de.ml.cloud.ibm.com/ml/v4/deployments/fd67c29a-39e2-4562-9a20-0ab40f1d0d8a/predictions?version=2022-11-30', json=payload_scoring,
    headers={'Authorization': 'Bearer ' + mltoken})
    prediction =response_scoring.json()
    print("dir(predict) :" ,dir(prediction))
    print(prediction)
    #print('Final Prediction Result',predictions['predictions'][0]['values'][0][0])
    output = prediction['predictions'][0]['values'][0][0]
    return render_template("predict.html", prediction_text=int(output))

if __name__ == '__main__':
      app.run(debug=False)
```