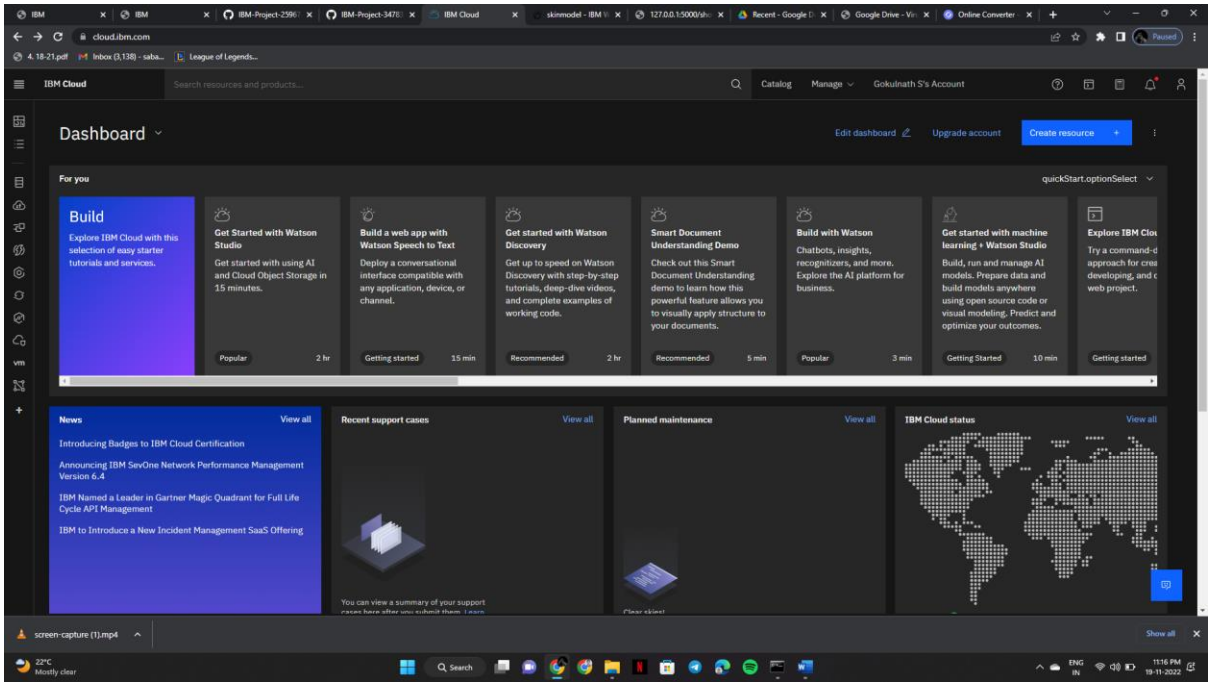
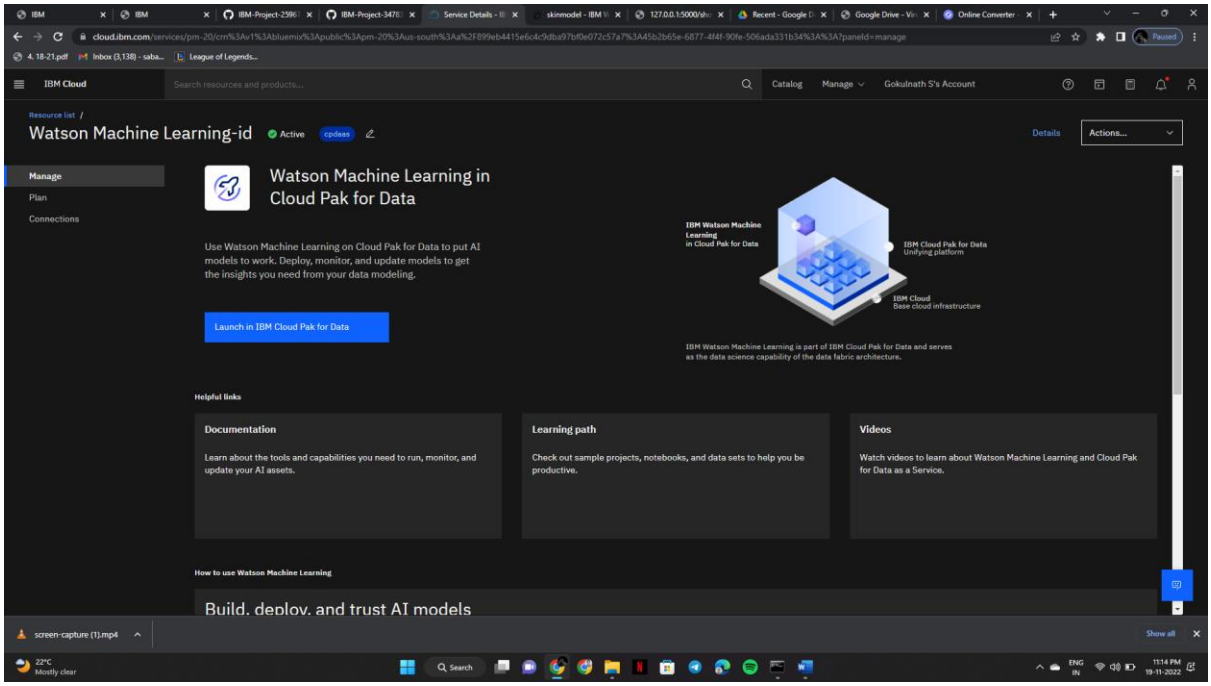
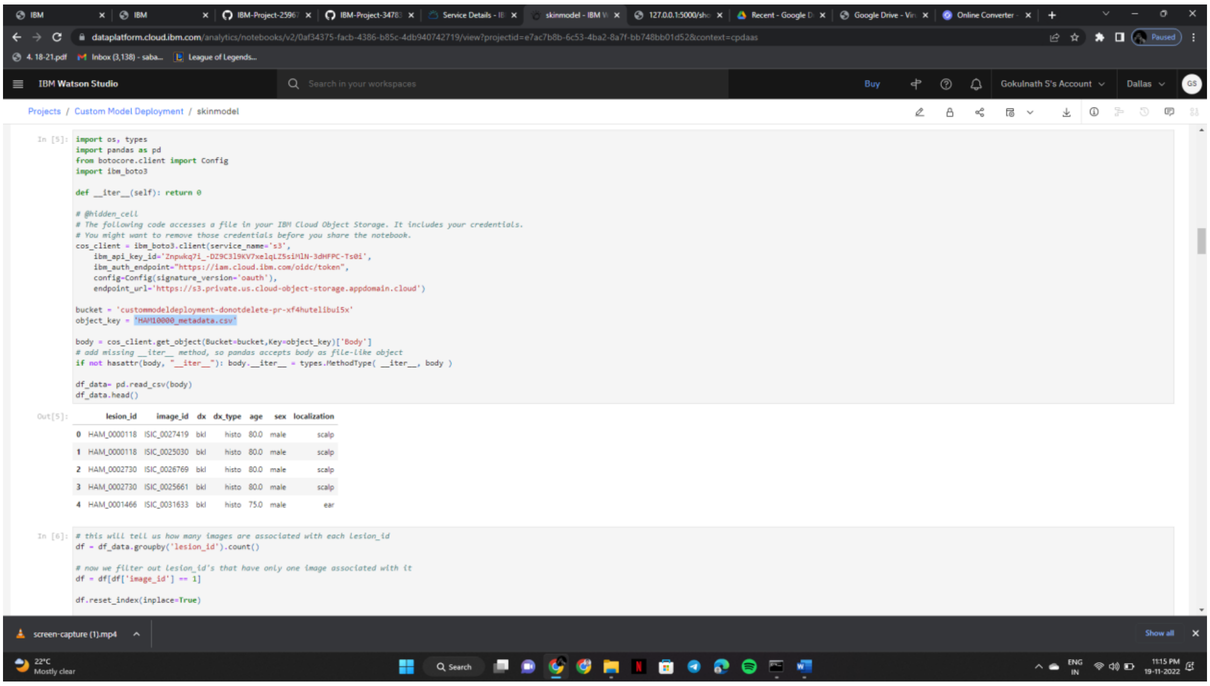
CLOUD DEPLOYMENT:







In [5]:
```python
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='Znpwkq7i_-DZ9C3l9KV7xelqLZ5siMlN-3dHFPC-Ts0i',
    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 = 'custommodeldeployment-donotdelete-pr-xf4hutelibui5x'
object_key = 'HAM10000_metadata.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 )

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

Out[5]:

	lesion_id	image_id	dx	dx_type	age	sex	localization
0	HAM_0000118	ISIC_0027419	bkl	histo	80.0	male	scalp
1	HAM_0000118	ISIC_0025030	bkl	histo	80.0	male	scalp
2	HAM_0002730	ISIC_0026769	bkl	histo	80.0	male	scalp
3	HAM_0002730	ISIC_0025661	bkl	histo	80.0	male	scalp
4	HAM_0001466	ISIC_0031633	bkl	histo	75.0	male	ear

In [6]:
```python
# this will tell us how many images are associated with each lesion_id
df = df_data.groupby('lesion_id').count()

# now we filter out lesion_id's that have only one image associated with it
df = df[df['image_id'] == 1]

df.reset_index(inplace=True)
```