

TEAM ID:PNT2022TMID26077

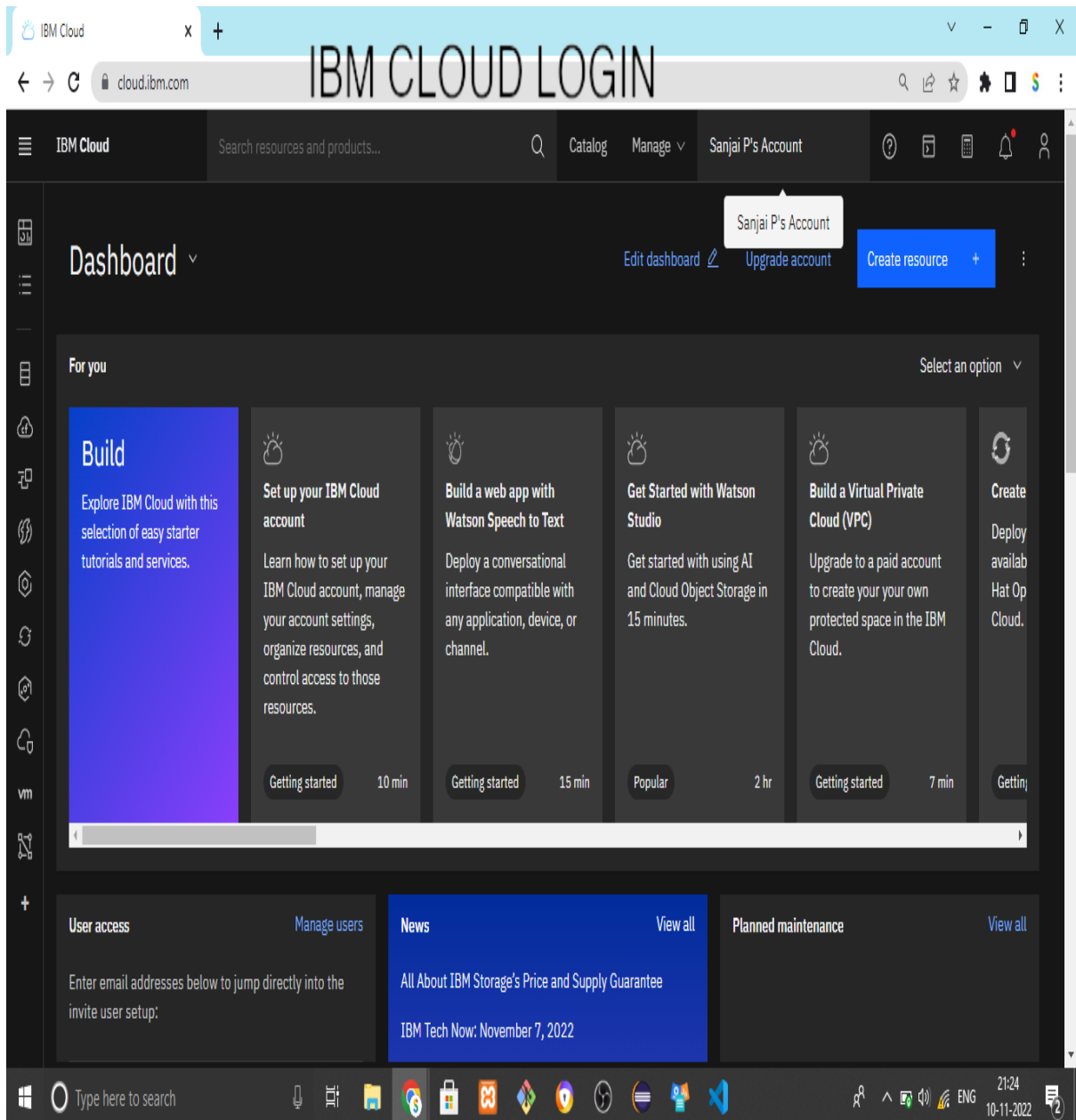
IBM-Project-1855-1658418245

This pdf shows the sequence of images , that
occurs during deploying our model on IBM
WATSON .

TEAM MEMBERS:SANJAIRAJ

M,RUPESH V, RITHWIN

PRASEED, SANJAI P.



Watson Machine Learning-iy

Active

update 

Actions...

[illegible]

Maring

Fluor

Watson Machine Learning in Cloud Pak for Data

Use Watson Machine Learning on Cloud Pak for Data to put AI models to work. Deploy, monitor, and update models to get the insights you need from your data modeling.

Launch in IBM Cloud Pak for Data



IBM Watson Machine Learning

IBM Cloud Pak for Data
Unifying platform

2004 Cloud
Base cloud infrastructure

IBM Watson Machine Learning is part of IBM Cloud Pak for Data and serves as the data science capability of the data fabric architecture.

Helpful Links

Documentation

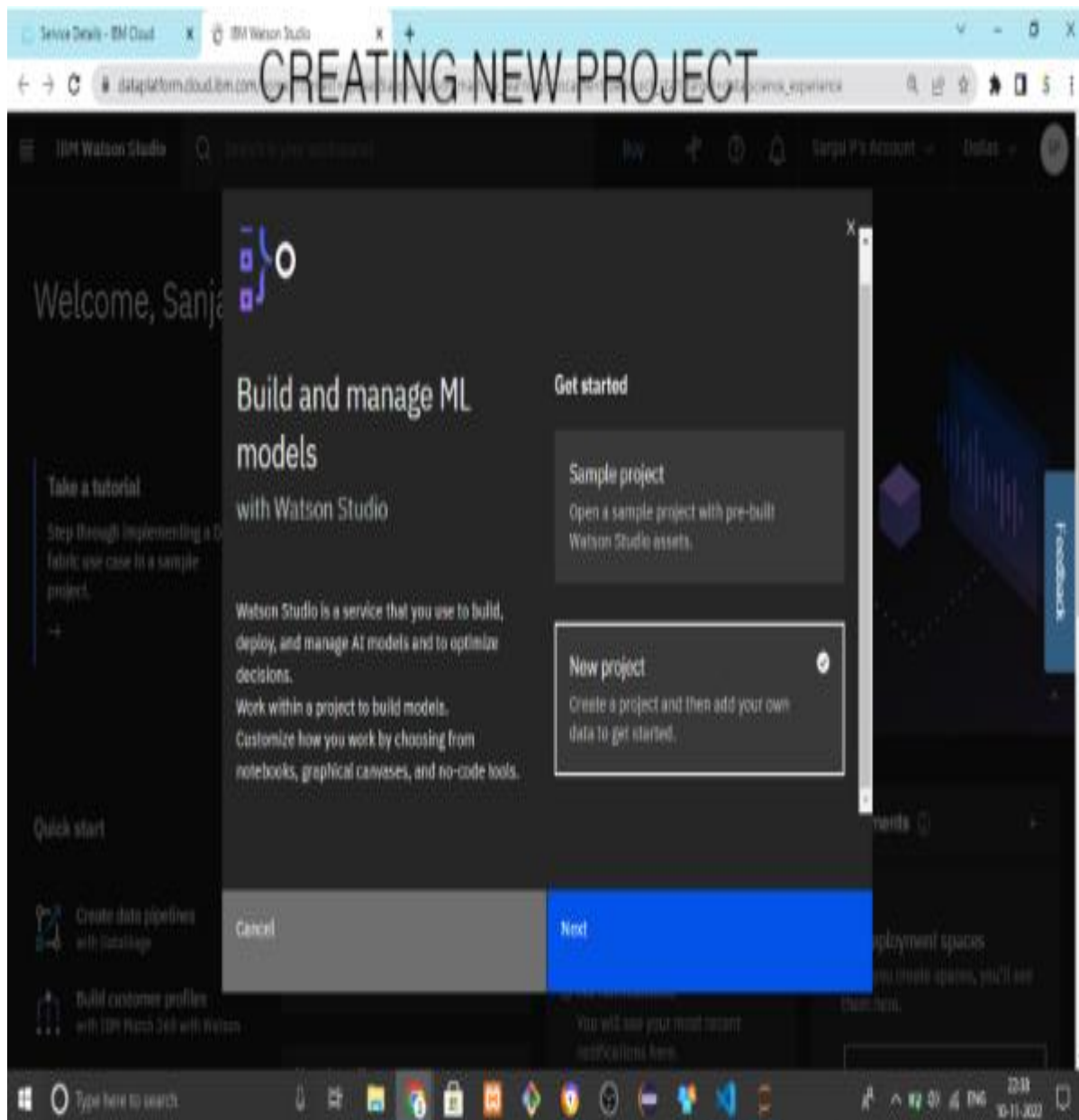
Learn about the tools and capabilities you

Learning pat

Check out sample projects, notebooks, and

Videos

Watch videos to learn about Watson.



Service Details - IBM Cloud x IBM Watson Studio x Cloud Object Storage - IBM Cloud x

← → ↻ dataplatform.cloud.ibm.com/projects/create-project/... 🔍 ⌵ ⌵ ⌵ ⌵ ⌵ ⌵

IBM Watson Studio Search in your workspaces Buy ⓘ 🔔 Sanjal P's Account Dallas 6P

New project

Define details

Name

Real Time Communication For Specially Abled People

Description

The project deals on building an application which helps the specially challenged people to communicate between them and the common people. Communication between a person with hearing/speech impairment and a normal person has always been a challenging task. This application tries to reduce the barrier of communication by...

Choose project options

☐ Restrict who can be a collaborator ⓘ

☐ Mark as sensitive ⓘ

Storage

Cloud Object Storage-sm

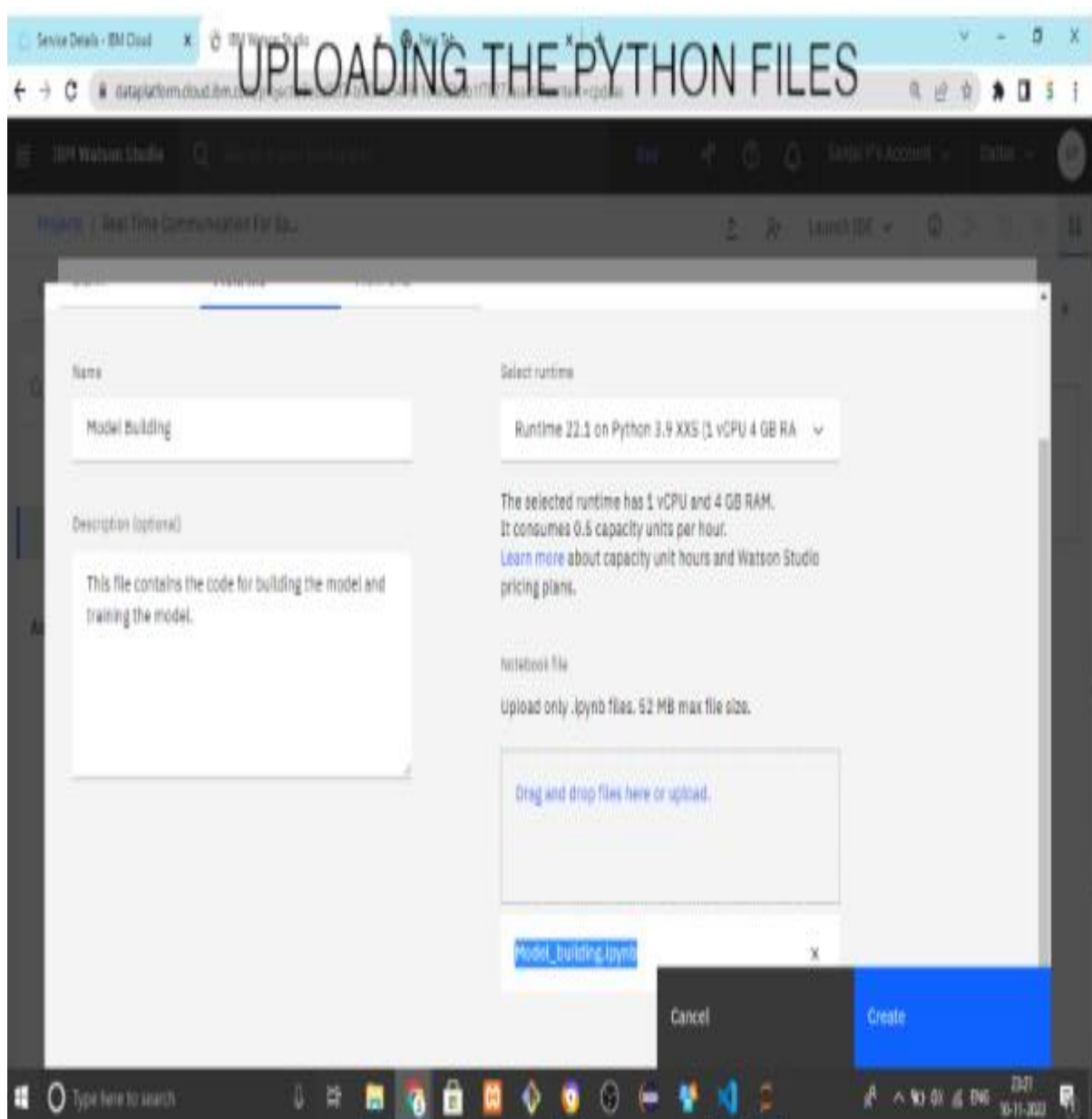
Cancel

Create

Type here to search

22:43 10-11-2022

The screenshot shows the IBM Watson Studio interface. At the top, there's a header with the IBM Watson Studio logo and a search bar. Below the header, the main content area displays the 'Cloud Object Storage' service. On the left, there's a 'Create' button. On the right, there's a 'Summary' sidebar. The 'Summary' sidebar lists details such as Region (Global), Plan (L10), Service name (Cloud Object Storage-mv), and Resource group (Default). Below the 'Summary' sidebar, there's a 'Configure your resource' section. This section contains a form with 'Service name' set to 'Cloud Object Storage-mv' and 'Resource group' set to 'Default'. There's also a 'Tags' section with a text input field.



The screenshot shows the IBM Watson Machine Learning Services catalog page. The 'Create' tab is selected, and the 'Select a region' dropdown is set to 'Dallas'. The 'Pricing plan' section displays a table with one plan: 'Lite' (Service instance, 20 capacity unit-hours (CUH) included, Free). A blue 'Create' button is visible on the right side of the page.

Plan	Features	Pricing
Lite	Service instance 20 capacity unit-hours (CUH) included.	Free

ADDING ASSETS TO PROJECT

Service Details - IBM Cloud IBM Watson Studio


dataplatom.cloud.ibm.com/projects/RealTimeCommunicationForSpecial...
Real Time Communication For Sp...

Buy Search in your workspaces Sanjay P's Account Dallas 9P

Assets Jobs Manage

Assets

Assets that you create with tools show here. See data assets on the Assets page.



[View all](#)

Resource usage

For this month in this project

0 CUH

Project history

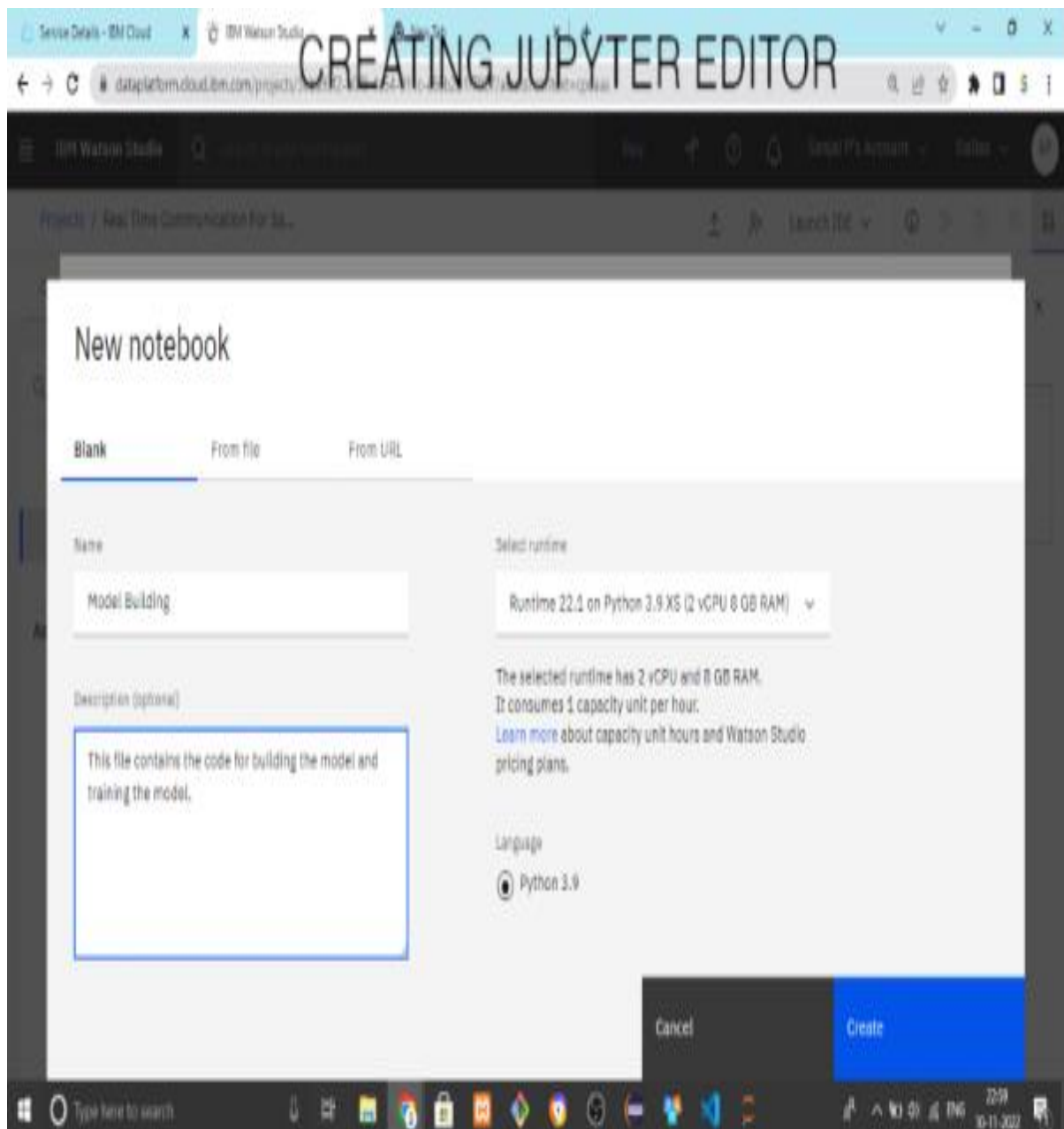
You created project [Real Time Communication For Specially Abled People](#) Today at 10:49 PM

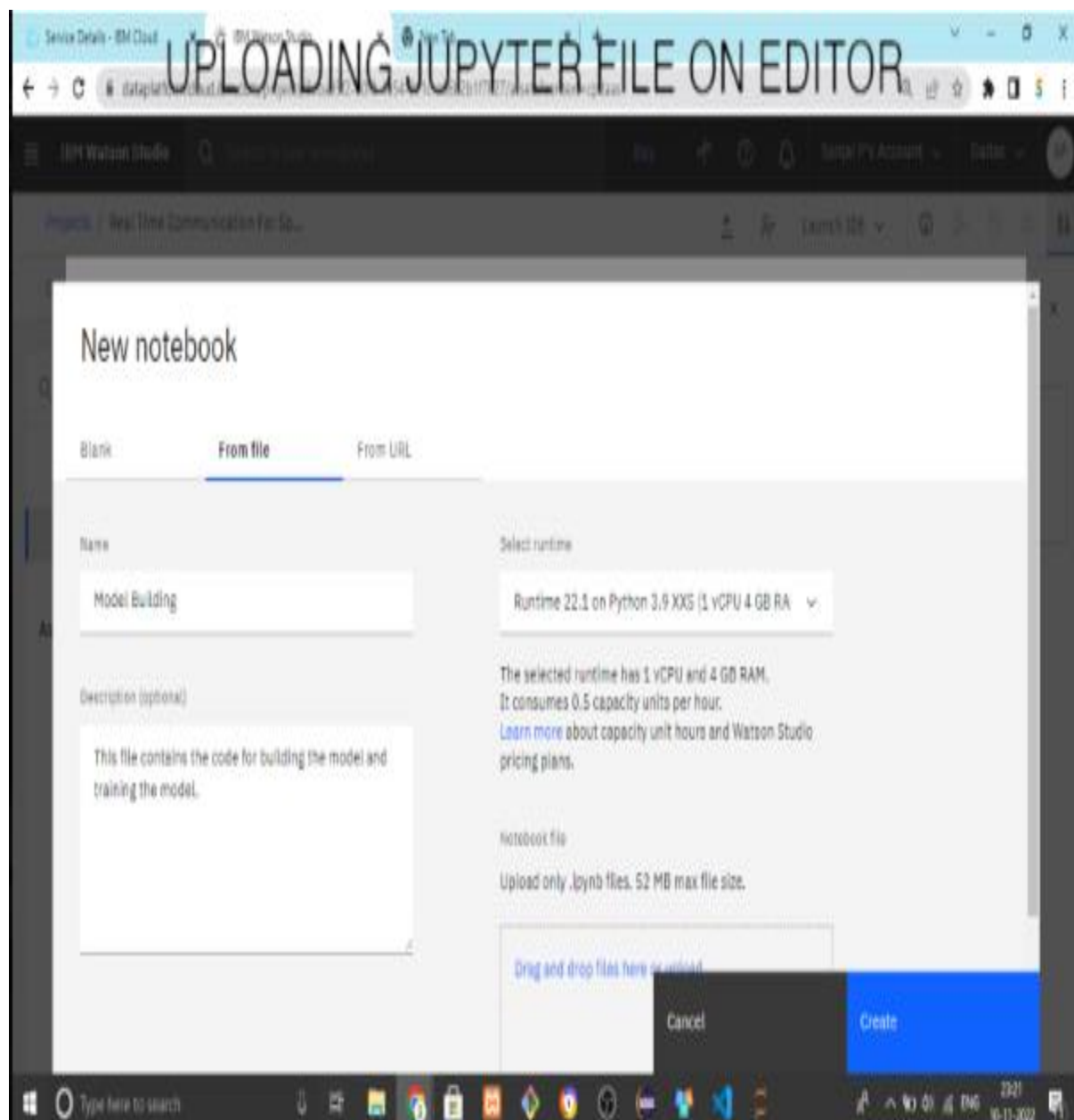
Readme

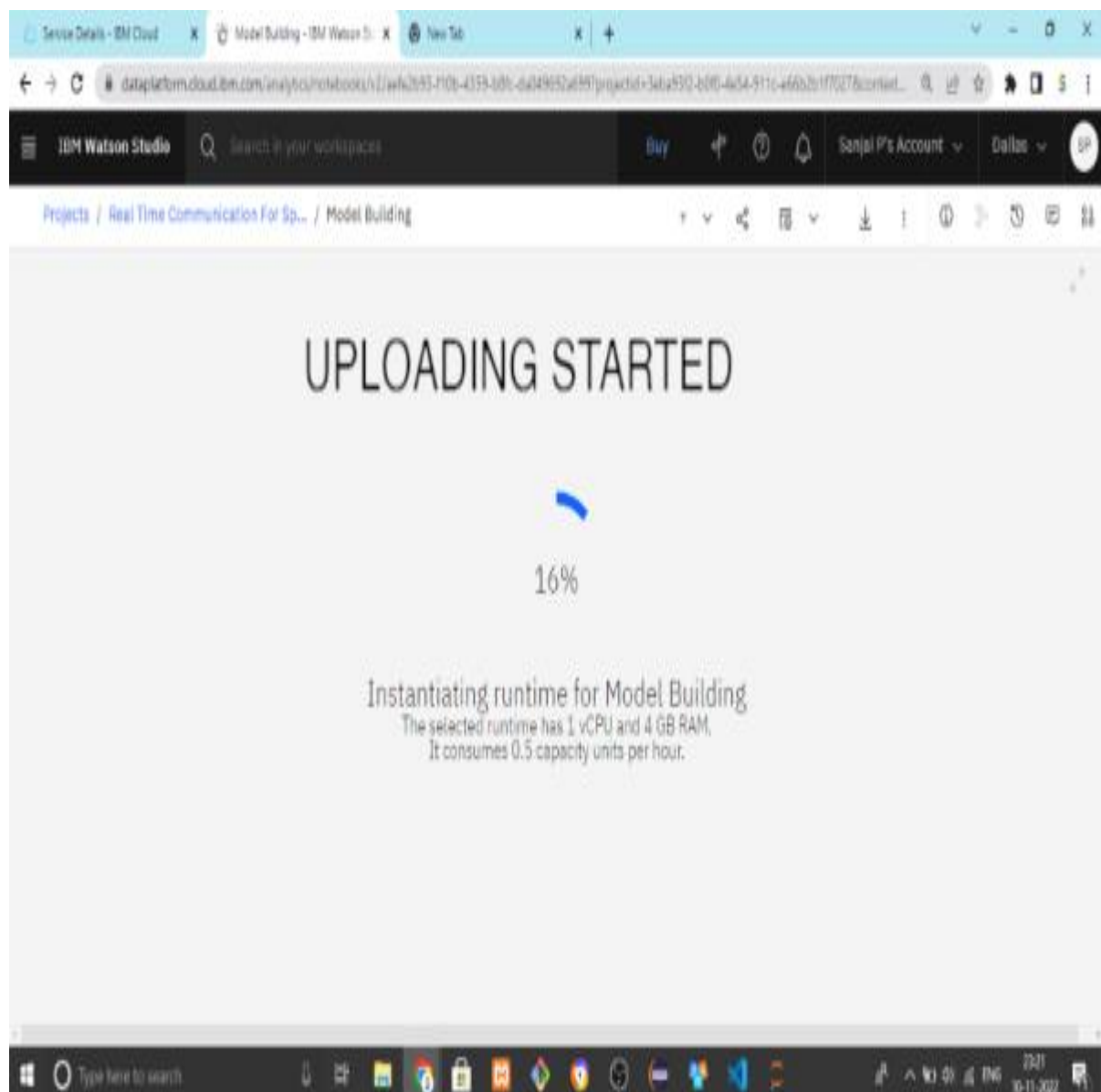
Type project notes, reminders, or instructions

Type here to search

20:59 16-11-2022







Service Details - IBM Cloud x Model Building - IBM Watson Studio x New Tab x +

← → ↻ dataplatform.cloud.ibm.com/analytics/notebooks/v2/workbooks/110b-4335-b0b1-da04952a699?projectId=3a2e832-b000-4e54-911c-46852b17027&context...

IBM Watson Studio Search in your workspace Buy ⓘ ⓘ ⓘ ⓘ Sanjai P's Account Dallas 8P

Projects / Real Time Communication For Sp... / Model Building

UPLOADING

87%

Instantiating runtime for Model Building
The selected runtime has 1 vCPU and 4 GB RAM.
It consumes 0.5 capacity units per hour.

Type here to search

23:21 10-11-2022

The screenshot displays the IBM Watson Studio environment. At the top, there's a navigation bar with the IBM logo and 'Watson Studio' text. Below it, a breadcrumb trail shows 'Projects / Real Time Communication for sp... / Model Building'. The main workspace contains a Jupyter Notebook with the following Python code:

```
In [100]:
import os, types
import pandas as pd
from boto3.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='aprmH2FHS8ECUN86PHK4qv5_1K3frzAWJ1Q-WGKX',
                              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 = 'realtimecommunicationforspecially-donotdelete-pr-rfqndcvugchbfu'
object_key = 'Dataset.zip'

streaming_body_4 = cos_client.get_object(Bucket=bucket, Key=object_key)['Body']

# Your data file was loaded into a boto3.response.StreamingBody object.
# Please read the documentation of ibm_boto3 and pandas to learn more about the possibilities to load the data.
# ibm_boto3 documentation: https://ibm.github.io/ibm-cos-sdk-python/
# pandas documentation: http://pandas.pydata.org/
```

On the right side, there's a 'Data' panel with a 'Files' tab. It shows a file named '1.png' with an 'Insert to code' button. Below it, there's a 'Dataset.zip' entry, also with an 'Insert to code' button. The bottom of the image shows a Windows taskbar with various application icons and the system clock indicating 23:46 on 11-11-2022.

Service Details - IBM Cloud x Model Building - IBM Watson Studio x New Tab x +

datapatform.cloud.ibm.com/analysis/notebooks/v2/af62b93-f10b-4359-b8fc-da049692a699?projectId=3eba932-b0f0-4e54-911c-466b2b1f7027&context...

IBM Watson Studio Search in your workspaces Buy Sample Pw Account Dates

Projects / Real Time Communication For So... / Model Building

File Edit View Insert Cell Kernel Help Not Trained Python 3.8

Run Code

```
In [14]: model.add(Dense(units=102, activation='relu'))

In [15]: model.add(Dense(units=6, activation='softmax'))

In [16]: model.compile(loss='categorical_crossentropy', optimizer='adam', metrics=['accuracy'])

In [17]: model.fit_generator(train, steps_per_epoch=14, epochs=18, validation_data=val, validation_steps=40)

/usr/local/lib/python3.7/dist-packages/keras/backend.py: userWarning: 'model.fit_generator' is deprecated and will be removed in a future version. Please use 'model.fit', which supports generators.
"entry point for launching an tf.keras model."

Epoch 1/18
24/24 [=====] - 17s 680ms/step - loss: 1.9706 - accuracy: 0.9610
Epoch 2/18
24/24 [=====] - 16s 603ms/step - loss: 1.4625 - accuracy: 0.9633
Epoch 3/18
24/24 [=====] - 16s 676ms/step - loss: 0.9600 - accuracy: 0.9842
Epoch 4/18
24/24 [=====] - 16s 678ms/step - loss: 0.7670 - accuracy: 0.9748
Epoch 5/18
24/24 [=====] - 16s 699ms/step - loss: 0.6183 - accuracy: 0.9788
Epoch 6/18
24/24 [=====] - 16s 661ms/step - loss: 0.6066 - accuracy: 0.9864
Epoch 7/18
24/24 [=====] - 17s 679ms/step - loss: 0.4164 - accuracy: 0.9964
Epoch 8/18
24/24 [=====] - 16s 712ms/step - loss: 0.3480 - accuracy: 0.9994
Epoch 9/18
24/24 [=====] - 16s 689ms/step - loss: 0.2641 - accuracy: 0.9936
Epoch 10/18
24/24 [=====] - 16s 666ms/step - loss: 0.1676 - accuracy: 0.9672

Out[17]: keras.callbacks.History at 0x16d8a3c70e0

In [18]: model.save('ml.pkl')
```

MODEL FITTING

Type here to search 23:25 10-11-2022

The screenshot displays the IBM Watson Studio web interface. At the top, there's a navigation bar with tabs for 'Model Building', 'Downloads', and 'IBM Cloud'. The main header shows the project name 'Real Time Communication for sp...' and the user 'Rupesh Vijayan's Account'. Below the header, the 'Projects' section is active, showing the project name and 'Model Building' as the selected view.

The central area is a Jupyter Notebook editor. The menu bar includes 'File', 'Edit', 'View', 'Insert', 'Cell', 'Kernel', and 'Help'. The toolbar shows various icons for file operations and a 'Run' button. The code editor contains the following Python code:

```
CLIENT

In [ ]: def guild_space_name(client, animal_deploy):
        space_client.spaces.get_details()
        return(next(item for item in space['resources'] if item['entity']['name'] == animal_deploy)['metadata']['id'])

In [ ]: space_uid = guild_space_name(client, 'animal_deploy')
        print("Space UID: " + space_uid)

In [ ]: client.set_default_space(space_uid)

In [ ]: client.software_specifications.list(200)

In [ ]: software_space_uid = client.software_specifications.get_uid_by_name('tensorflow_rt22.1-py3.9')

In [ ]: software_space_uid

In [ ]: model_details = client.repository.store_model(model='animal-classification-model.tgz', meta_props={
        client.repository.ModelMetaNames.NAME: 'CNN Model Building',
        client.repository.ModelMetaNames.TYPE: 'tensorflow_2.7',
        client.repository.ModelMetaNames.SOFTWARE_SPEC_UID: software_space_uid
    })
```

On the right side, there's a 'Data' panel with 'Files' and 'Connections' tabs. The 'Files' tab shows a list of files: '1.png' and 'Dataset.zip'. Each file has an 'Insert to code' button. A dashed box above the files contains the text: 'Drag and drop files here or upload.'

The bottom of the image shows the Windows taskbar with various application icons and the system clock indicating the time as 23:46 on 11-11-2022.

Inbox (138) - sarjini

Downloads

Model_Building_Anc

Service Details - IBM

IBM Watson Studio

real_time - IBM Watson

dataplatform.cloud.ibm.com/ml-runtime/spaces/40cf62c-38d1-4f55-b4a6-c1b77eb8cf5/assets?context=cpdaas

IBM Watson Studio

Buy

?

🔔

🔗

👤

SP

Deployments /

Re

Over

1:

As

Create a deployment

Associated asset
CNN

Deployment type

Online

Run the model on data in real-time, as data is received by a web service.

Batch

Run the model against data as a batch process.

Cancel

Create

apikey (T)jcn

Real_time (T)h5

Show all

IBM Watson Studio

Buy



SP

Deployments /

Real_Time


OverviewAssetsDeploymentsJobs

Search

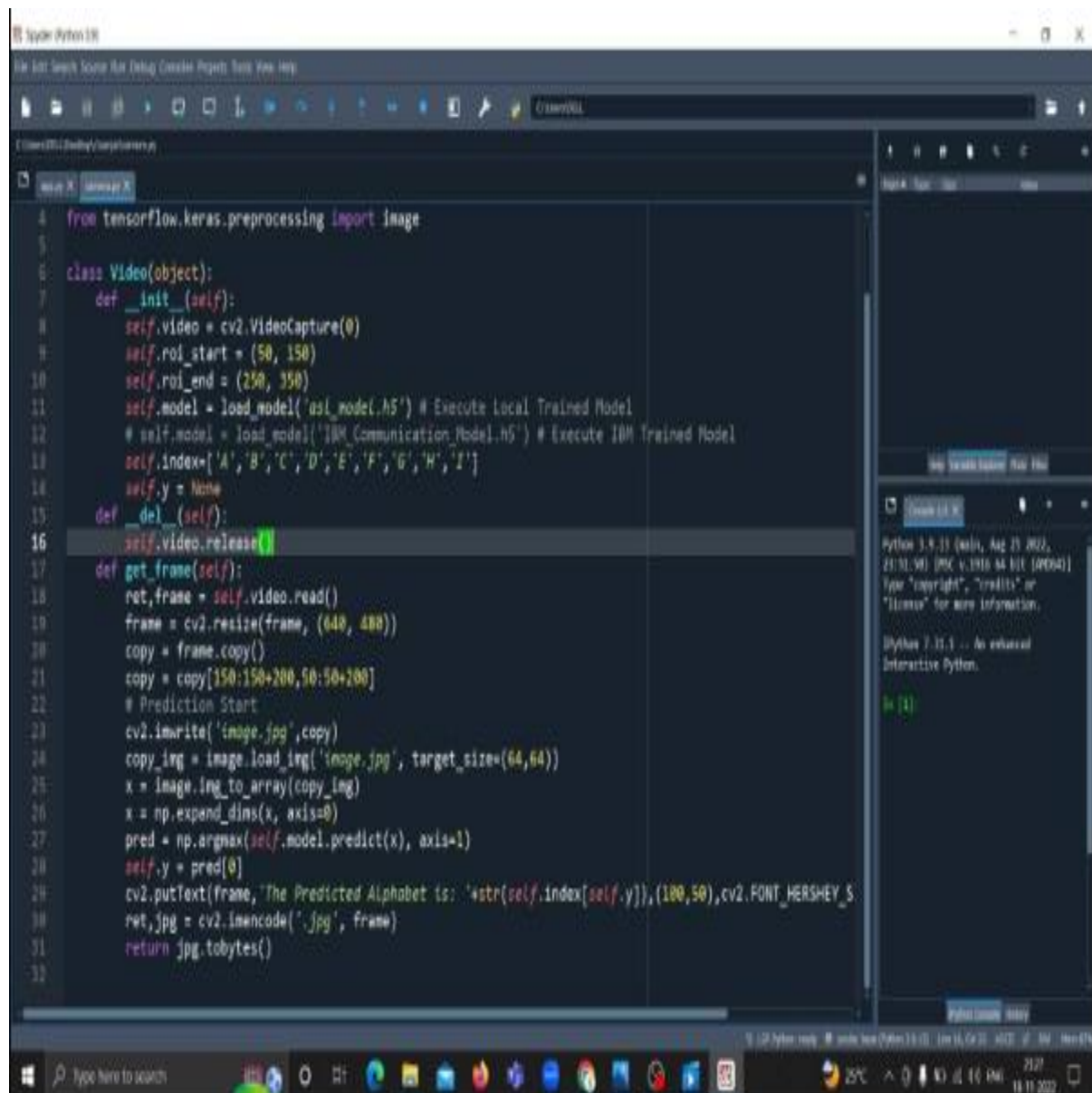
Name	Type	Status	Asset	Last modified	
 Real Time Communication For Specially Abled People	Online	 Deployed	CNN	25 seconds ago Sanjai P (You)	

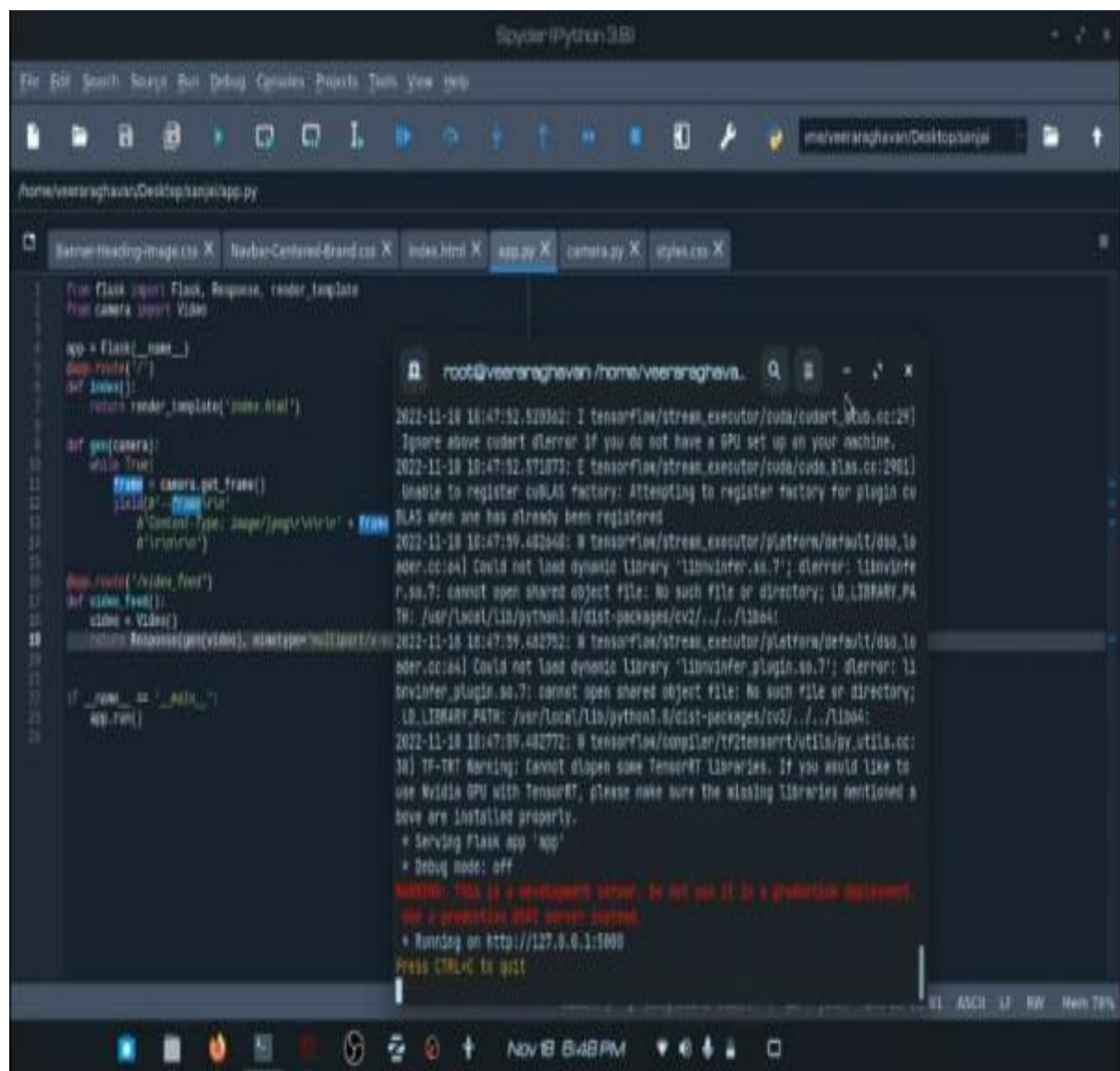
Items per page: 201-1 of 1 items1 of 1 pages

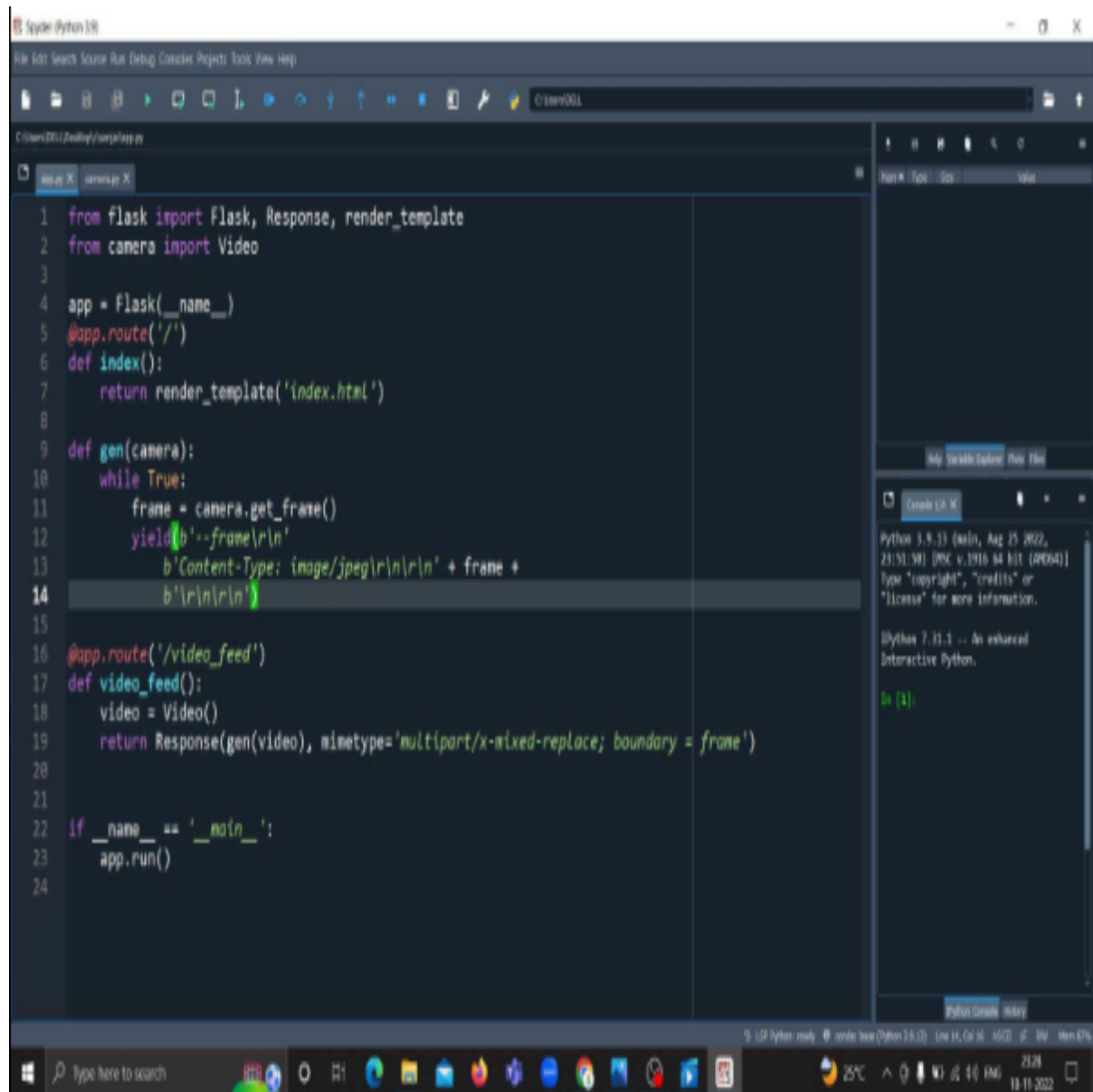
Notifications

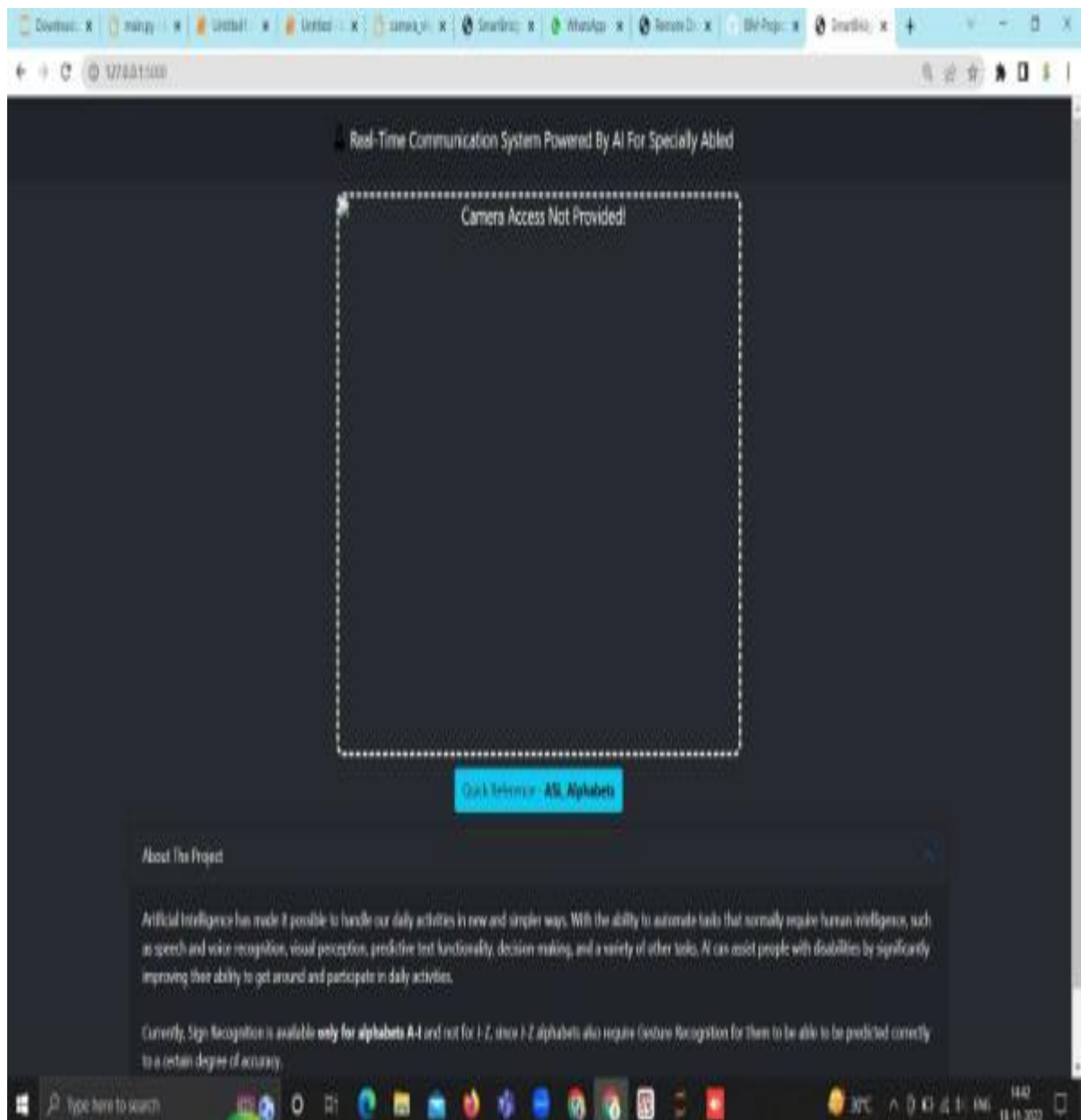
 **Online deployment ready**
The online deployment Real Time Communication For Specially Abled People in space Real_Time is ready to accept requests.
Today 12:56 AM

View all









Real

Able

American Sign Language - Alphabets

Close

Real-Time Communication System Powered By AI For Specially Abled



Quick Reference - ASL Alphabets