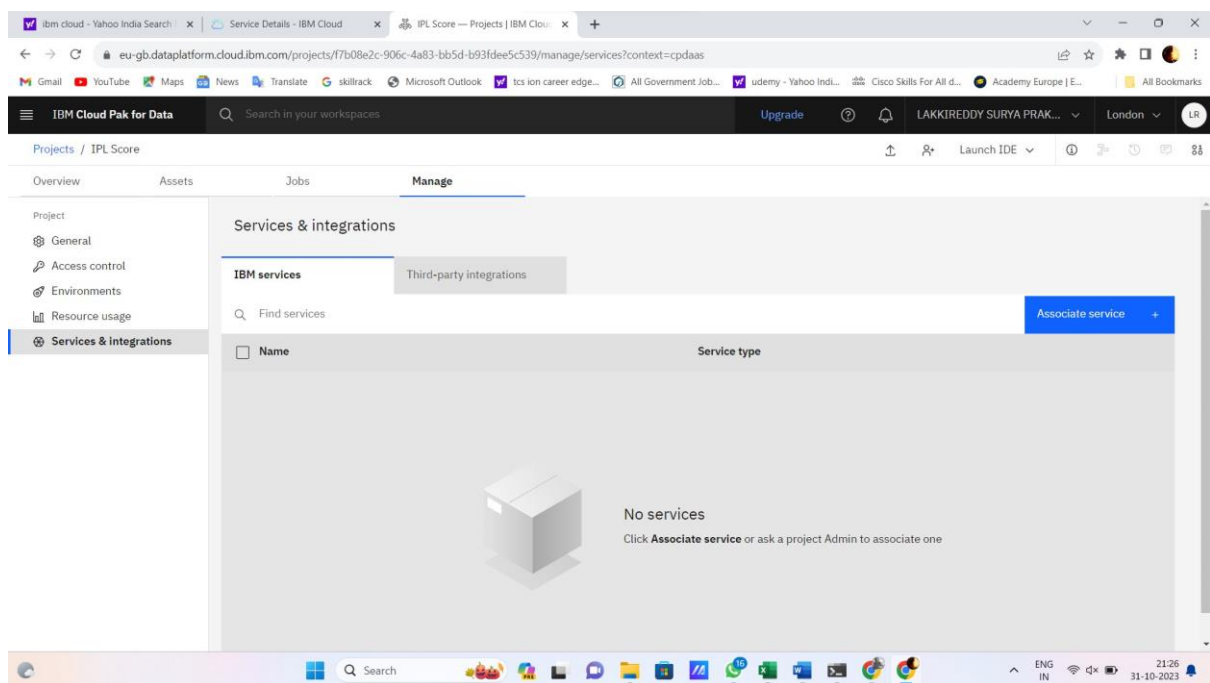


Machine Learning Model Deployment with IBM Cloud Watson Studio

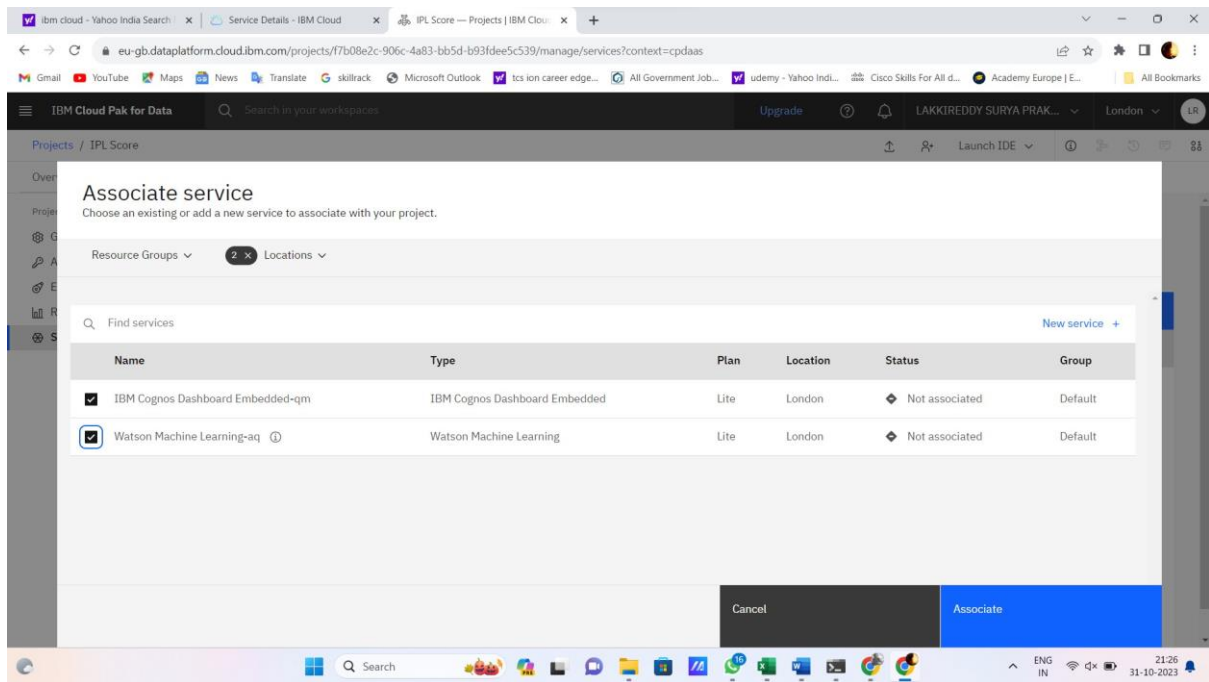
Development Part 2

In this part we are developing a ML model using Watson Studio and deploying into the IBM Cloud. This is continued into the step by step process from model developing onwards,

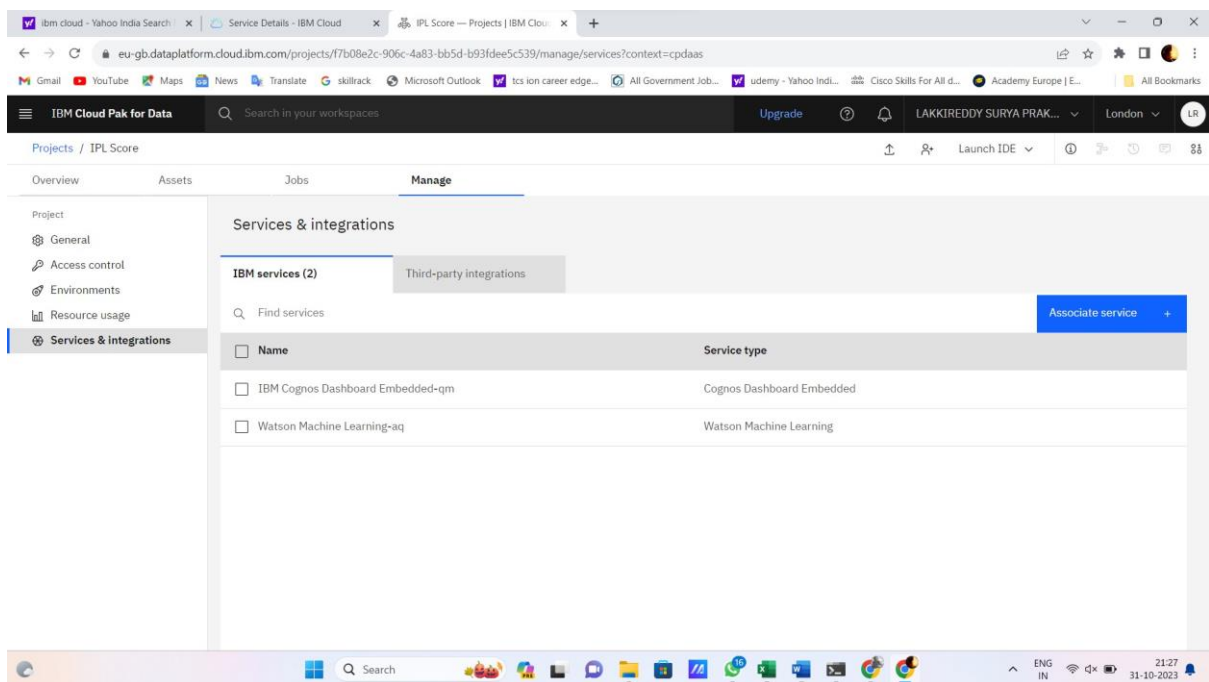
STEP 1:



From the above picture we can see that previously created project, now here we associating services which is previously existed.

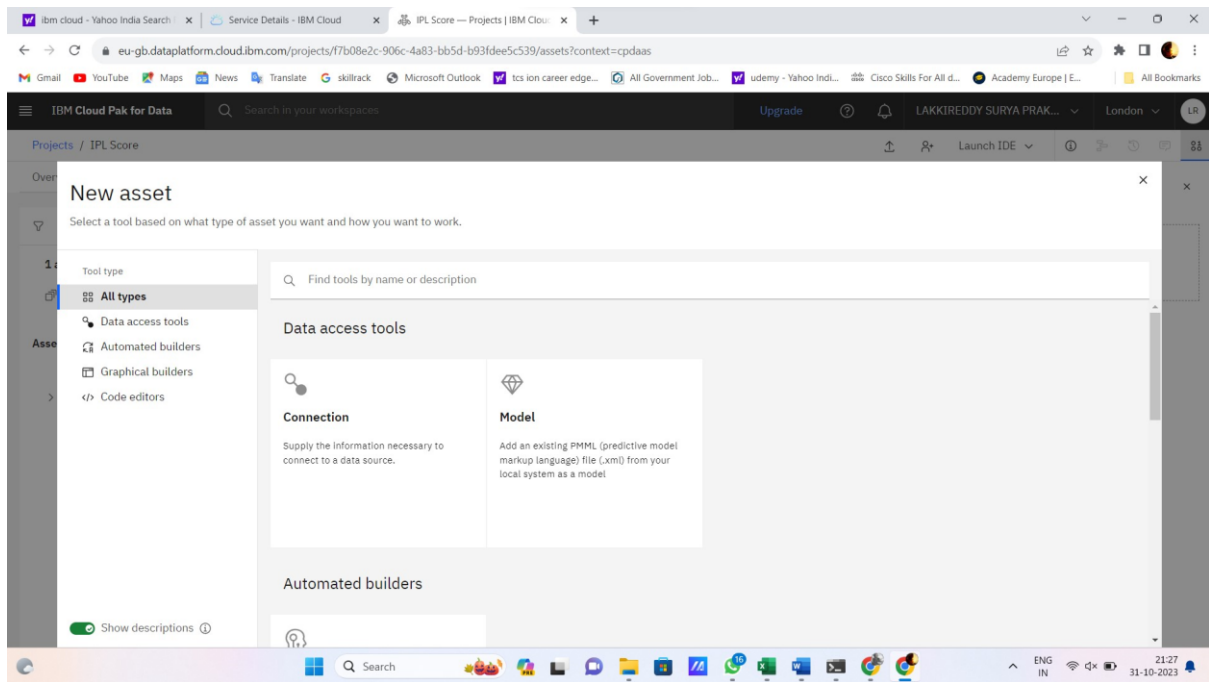


Now press the Associate to Associate the services. after that we can see the list of Associated Services.

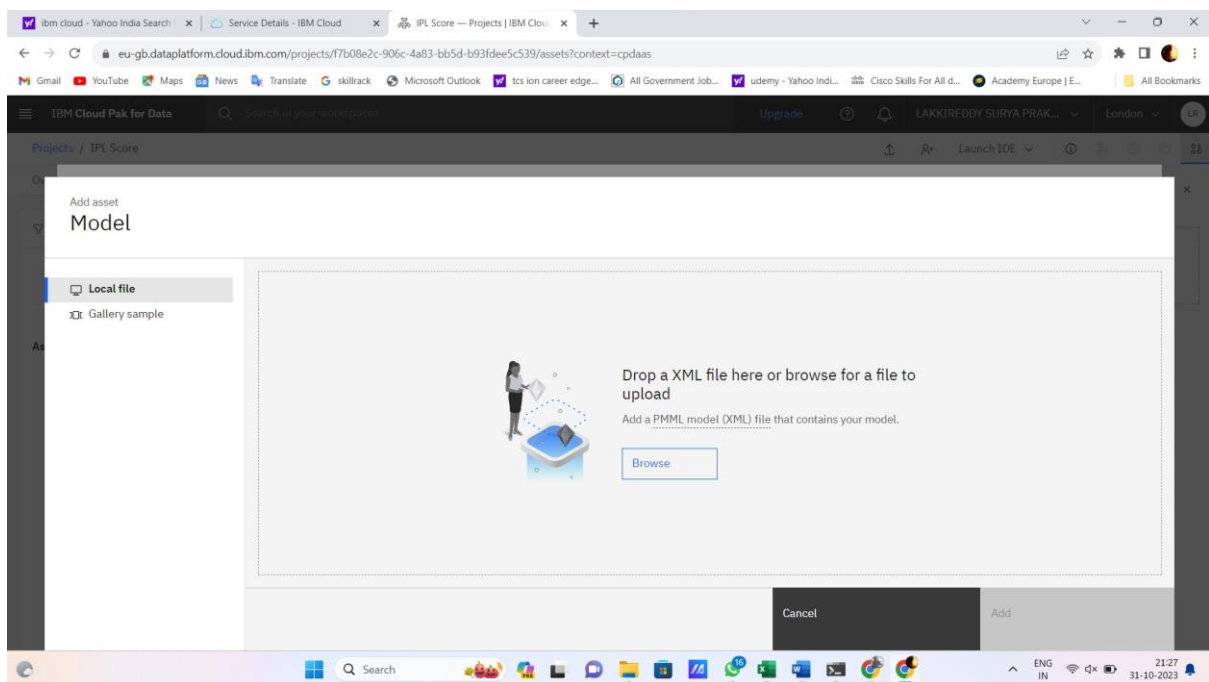


STEP 2:

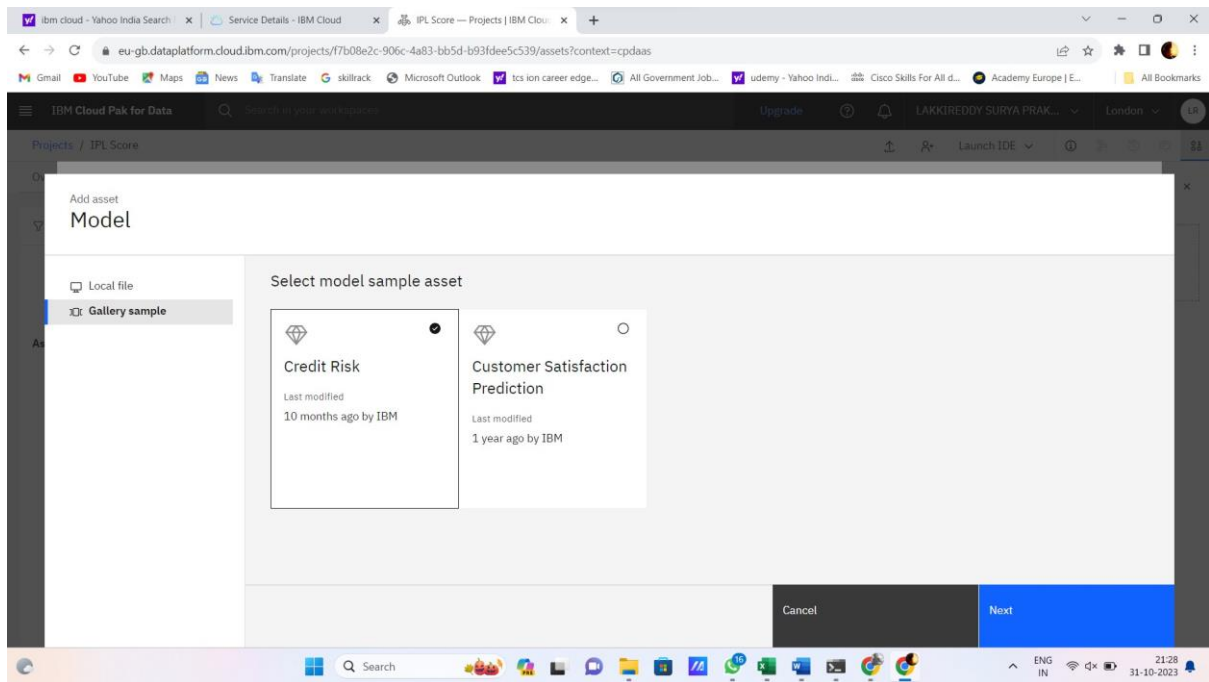
It is process of creating model by New asset it displays like a below page from there we need select the Model



After pressing model it displays next page, Here we need to choose the Gallery sample

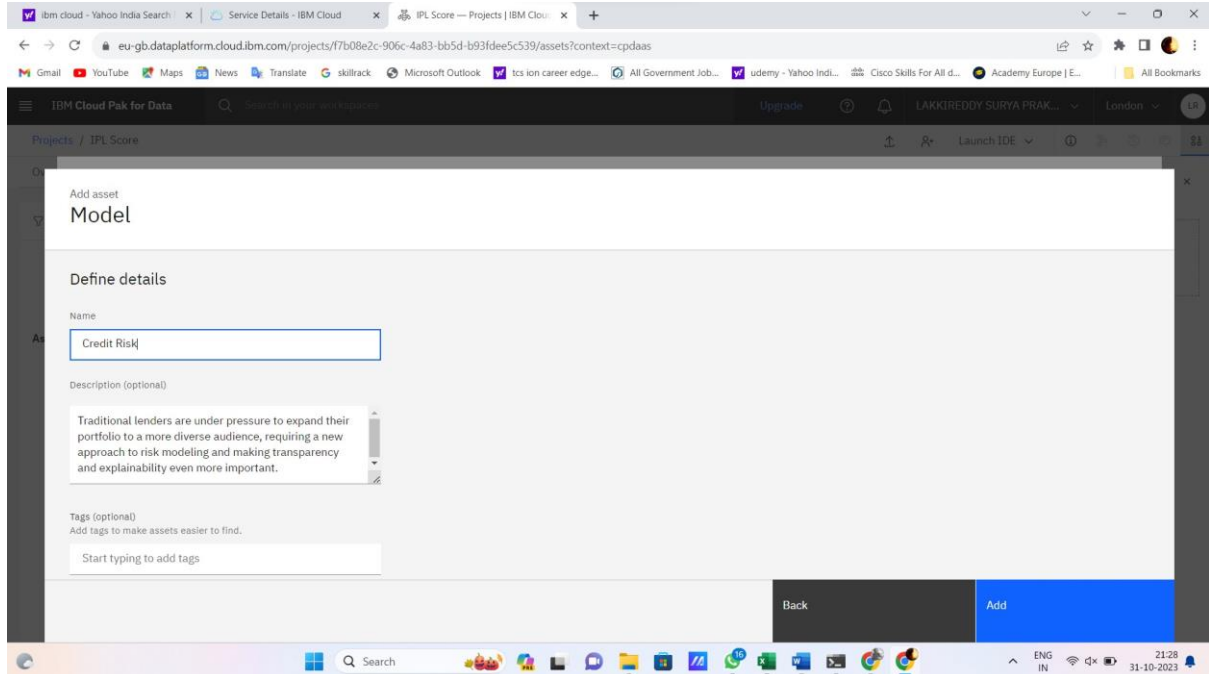


Next it gives two options in that we need to choose the credit Risk , Then press NEXT option for the further process



STEP 3:

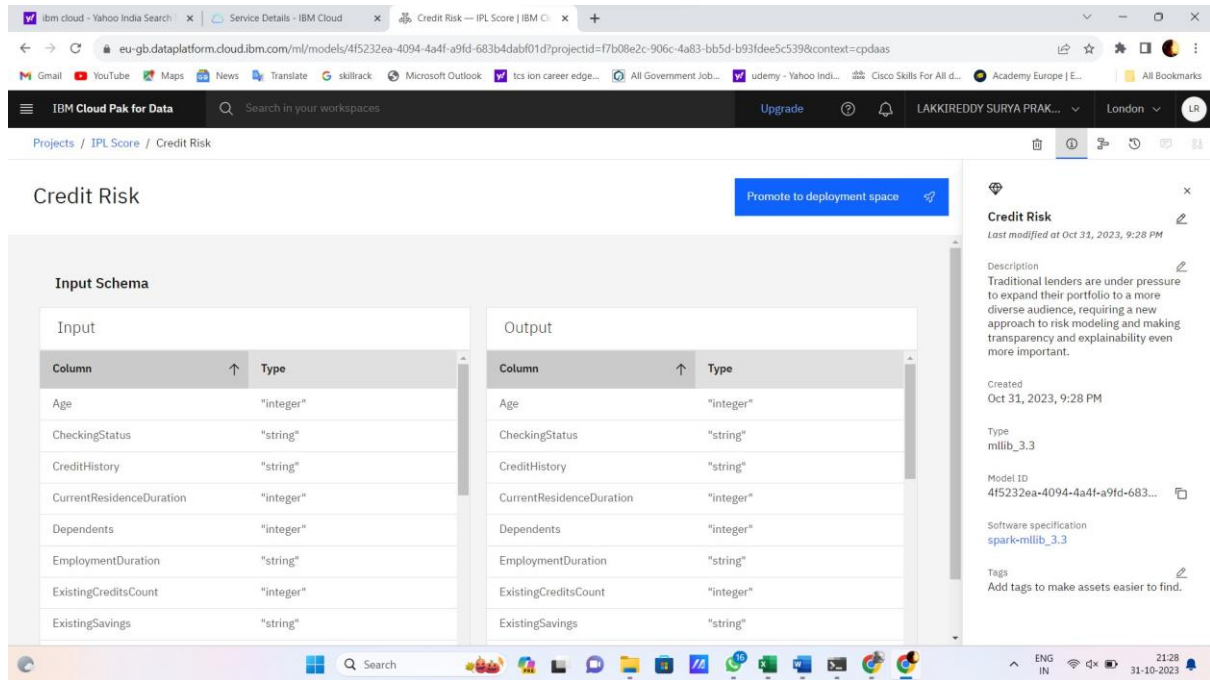
It is the process of giving name of the model, here I am model as Credit Risk.



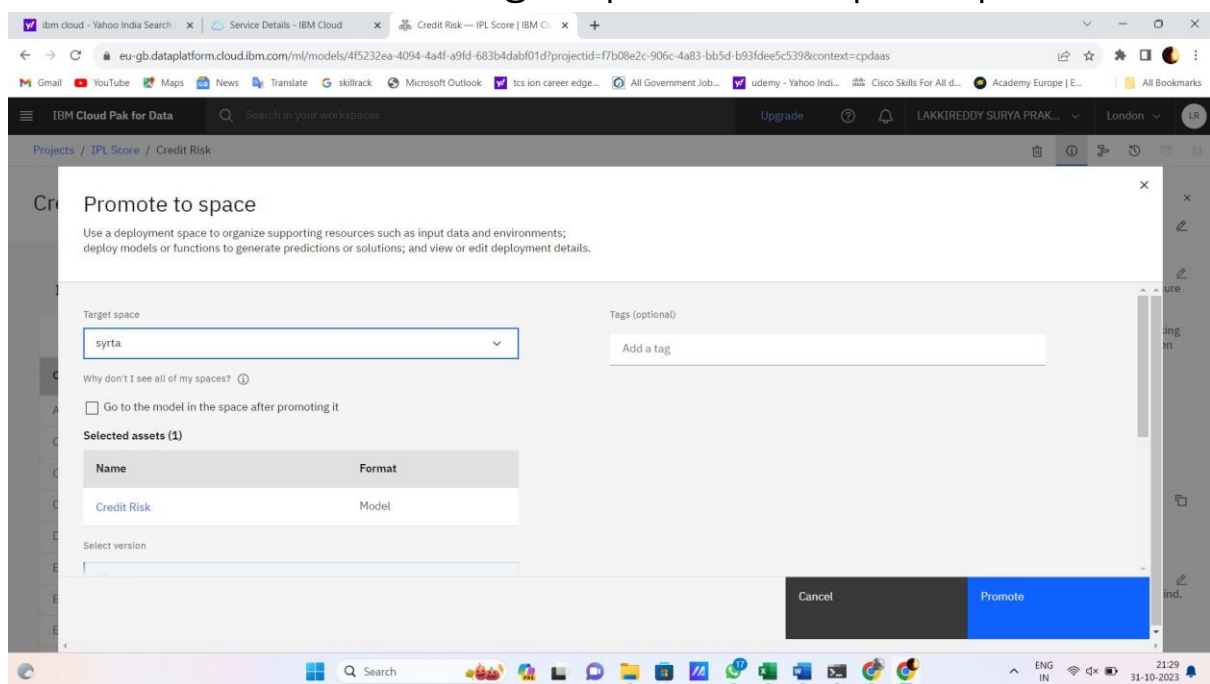
Then press the Add to move next process

STEP 4:

It is process of deploying the developed model, Here press the promote to deployment space.

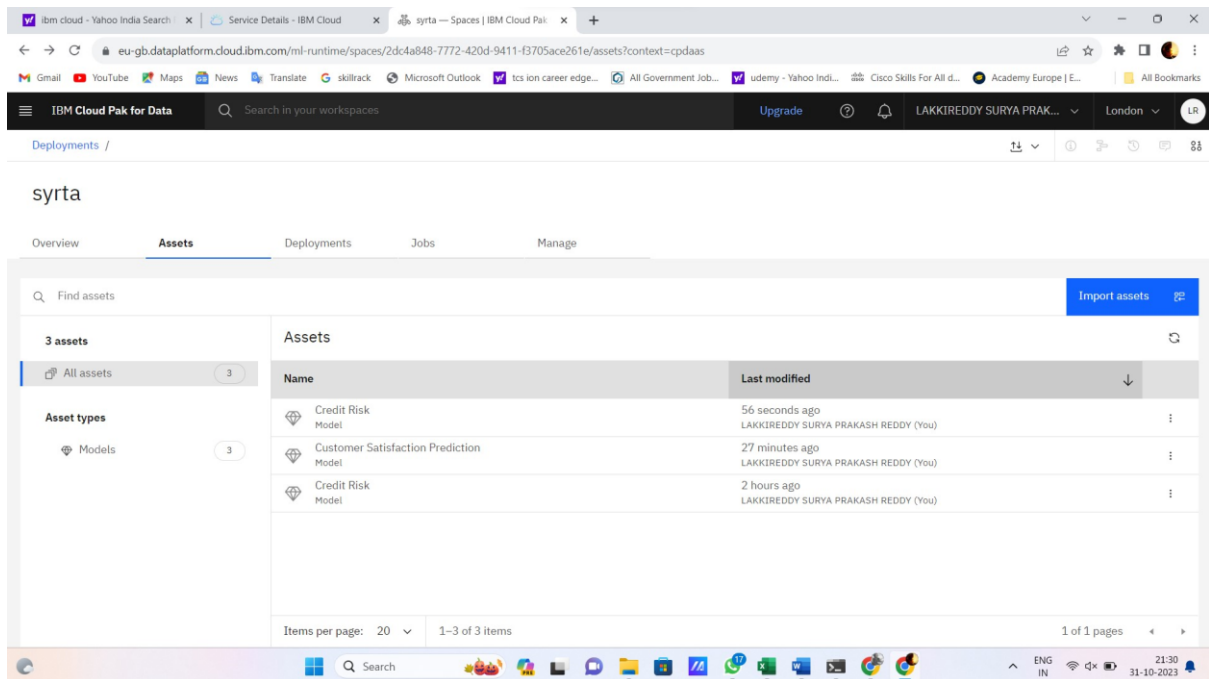


Now we need to Promote to space ,to promote space we need to create a target space. Then press promote

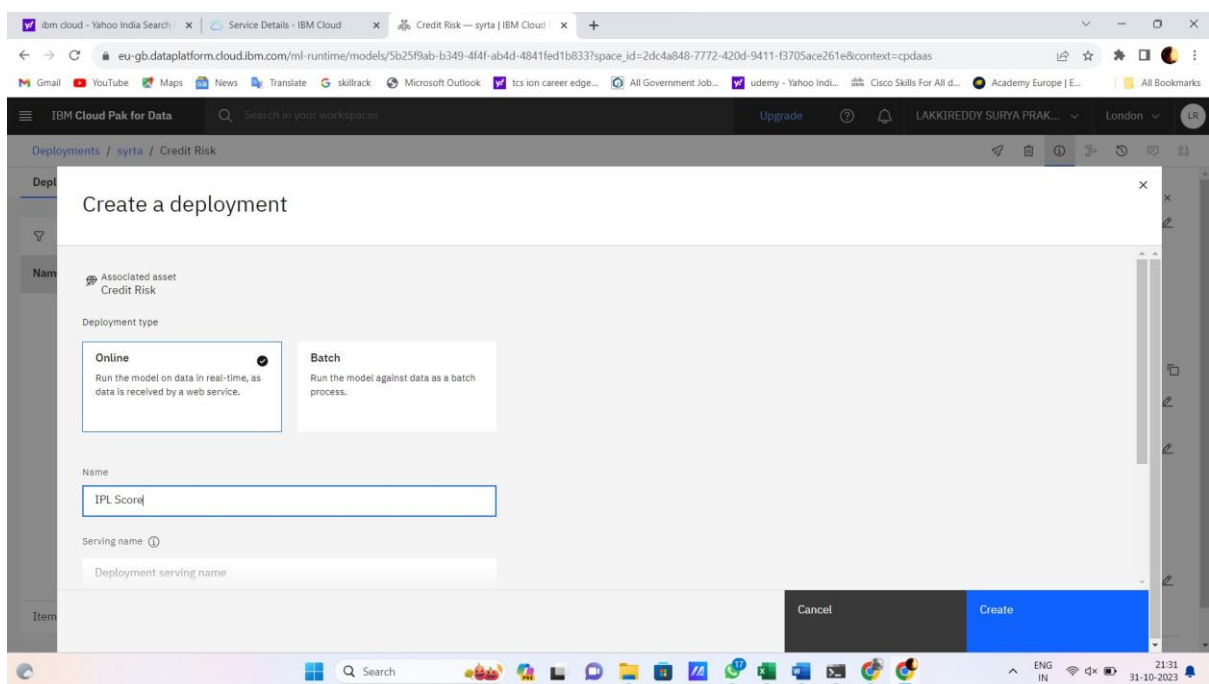


STEP 5:

Here we can see the list of models created using Watson Studio



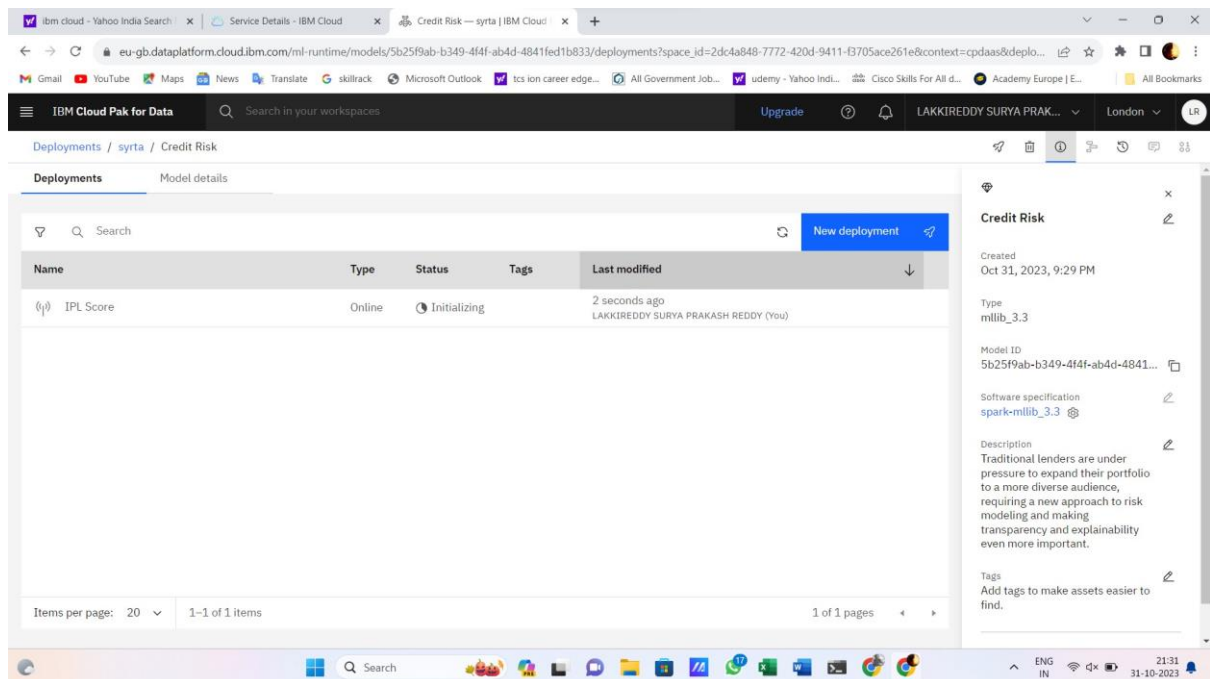
Now choose the developed model from the above list of models



Choose as online to deployment the model and give the name of a model , then press the Create

STEP 6 :

It is the process of Initialising the Deployments of a model



After Initialising the model

IBM Cloud Pak for Data

Deployments / syrita / Credit Risk

Deployments Model details

Search

New deployment

Name	Type	Status	Tags	Last modified
IPL Score	Online	Deployed		25 seconds ago LAKKIREDDY SURYA PRAKASH REDDY (You)

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

Credit Risk

Created
Oct 31, 2023, 9:29 PM

Type
mlib_3.3

Model ID
5b25f9ab-b349-4f4f-ab4d-4841...

Software specification
spark-mlib_3.3

Description
Traditional lenders are under pressure to expand their portfolio to a more diverse audience, requiring a new approach to risk modeling and making transparency and explainability even more important.

Tags
Add tags to make assets easier to find.

STEP 7:

It is the process of testing the model

IBM Cloud Pak for Data

Deployments / syrita / Credit Risk /

IPL Score Deployed Online

API reference Test

Enter input data

Text JSON

Enter data manually or use a CSV file to populate the spreadsheet. Max file size is 50 MB.

Download CSV template Browse local files Search in space

	CheckingStatus (string)	LoanDuration (integer)	CreditHistory (string)	LoanPurpose (string)	LoanAmount (integer)	ExistingSavings (string)	EmploymentDuration (string)	Installment
1	score							
2								
3								
4								

0 rows, 20 columns

Predict

STEP 8:

The model is successfully deployed into the IBM Cloud

The screenshot displays the IBM Cloud Pak for Data console interface. The main content area shows the 'IPL Score' model deployment status as 'Deployed' and 'Online'. Below this, the 'API reference' tab is active, displaying a 'Direct link' to the private endpoint and a 'Bearer <token>' field. The 'Code snippets' section provides a table of code snippets for different languages (cURL, Java, JavaScript, Python, Scala) and a detailed cURL command for making a prediction request. The right sidebar contains a metadata panel for the 'IPL Score' model, listing details such as 'Created' (Oct 31, 2023, 9:31 PM), 'Updated' (Oct 31, 2023, 9:31 PM), 'Deployment ID' (6c362721-7ead-4390-8f27-c836bb19c24d), 'Software specification' (spark-mllib_3.3), 'Copies' (1), 'Serving name' (No serving name), 'Description' (No description provided), and 'Tags' (Add tags to make assets easier to find).

IBM Cloud Pak for Data

Deployments / syrita / Credit Risk /

IPL Score

Deployed Online

API reference Test

Direct link

Private endpoint

Bearer <token>

https://private.eu-gb.ml.cloud.ibm.com/ml/v4/deployments/6c362721-7ead-4390-8f27-c836bb19c24d/prediction:

IAM

Learn more about the 2021-05-01 version query parameter

Code snippets

cURL	Java	JavaScript	Python	Scala
<pre># NOTE: you must set \$API_KEY below using information retrieved from your IBM Cloud account (https://eu-gb.dataplatform.cloud.ibm.com/docs/cont curl --insecure -X POST --header "Content-Type: application/x-www-form-urlencoded" --header "Accept: \ application/json" --data-urlencode "grant_type=urn:ibm:params:oauth:grant-type:apikey" \ --data-urlencode "apikey=\$API_KEY" "https://iam.cloud.ibm.com/identity/token" # the above CURL request will return an auth token that you will use as \$IAM_TOKEN in the scoring request below # TODO: manually define and pass values to be scored below curl -X POST --header "Content-Type: application/json" --header "Accept: application/json" --header "Authorization: \ Bearer \$IAM_TOKEN" -d '{"input_data": [{"fields": [\$ARRAY_OF_INPUT_FIELDS], "values": [\$ARRAY_OF_VALUES_TO_BE_SCORED, \ \$ANOTHER_ARRAY_OF_VALUES_TO_BE_SCORED]]}]' "https://private.eu-gb.ml.cloud.ibm.com/ml/v4/deployments/6c362721-7ead-4390-8f27-c836bb19c24d/prediction: "</pre>				

ENG IN 21:32 31-10-2023