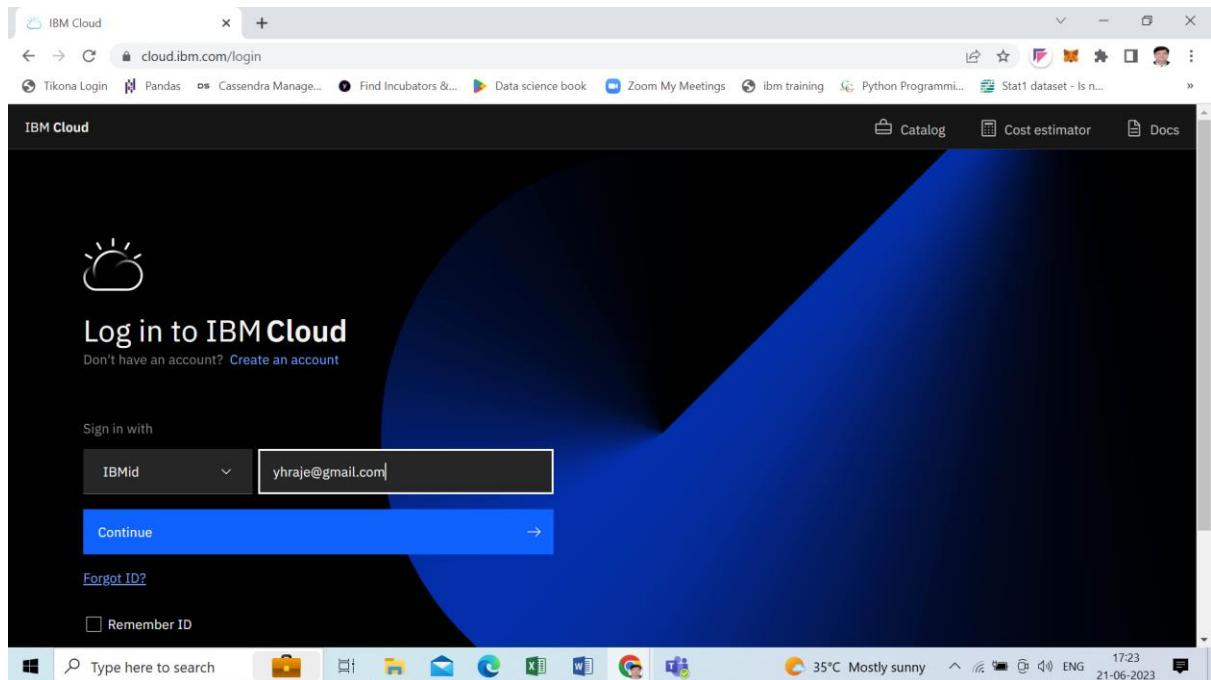
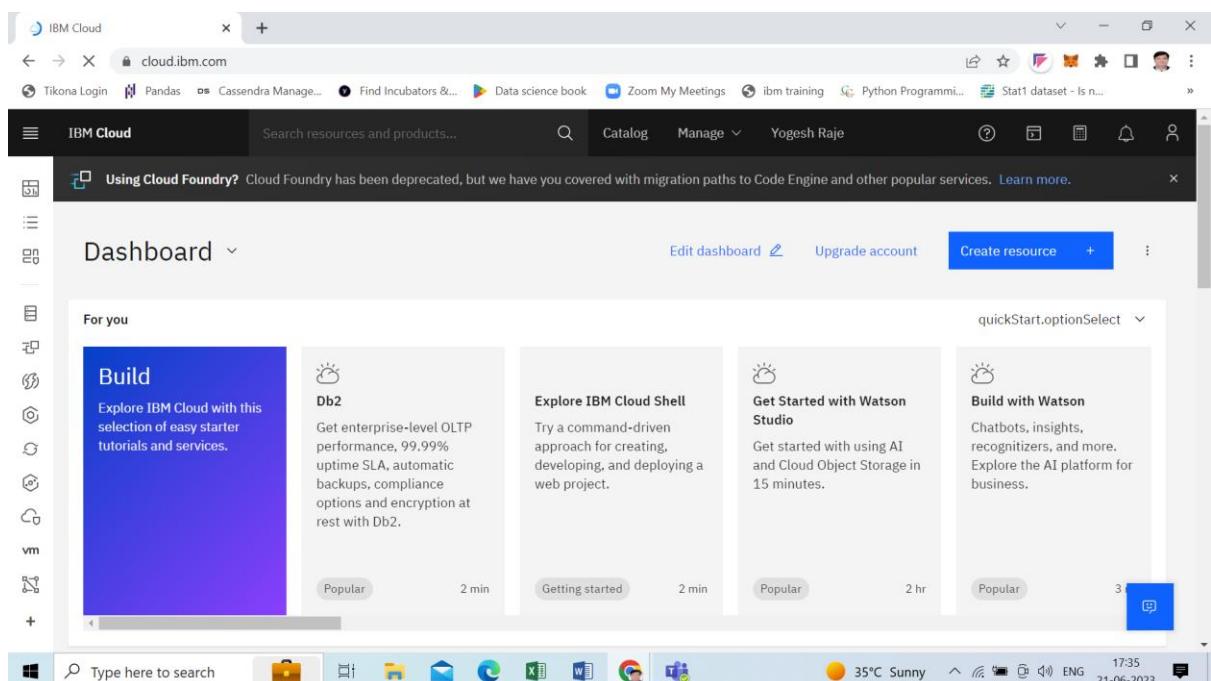


Demo- Create Machine Learning Model using IBM Watson Studio and AutoAI Machine Learning service on IBM Cloud

Step1 – Login to IBM Cloud <https://cloud.ibm.com/login>

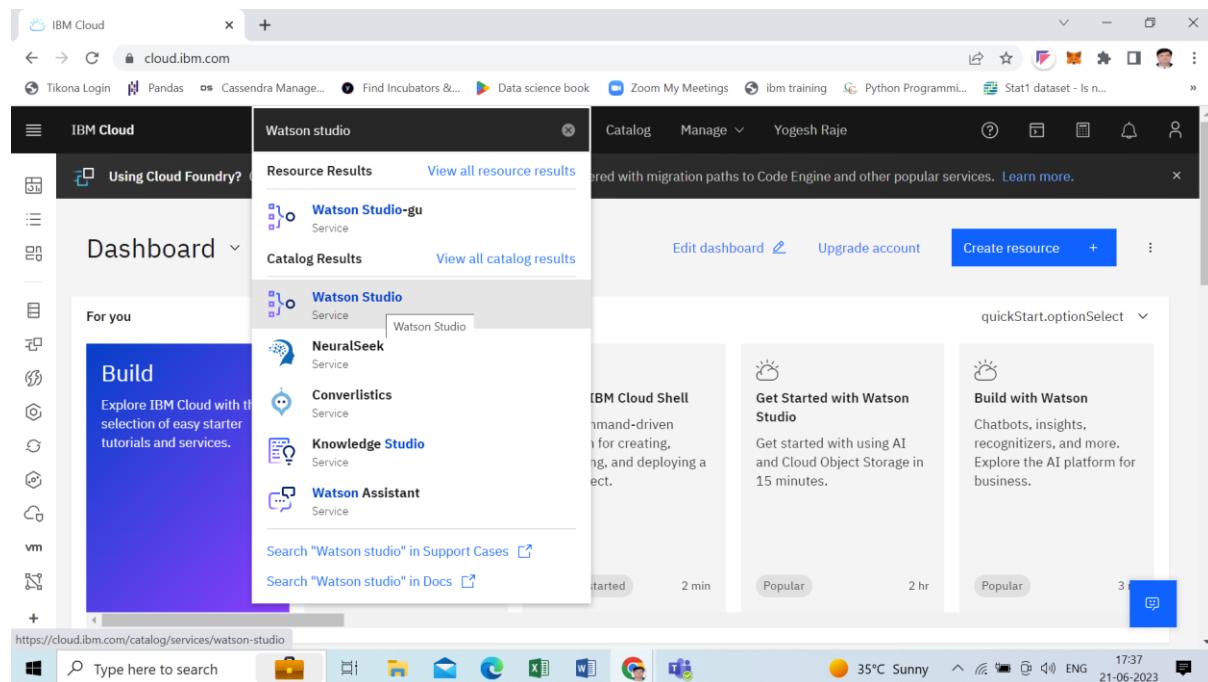


After Login, you will be redirected to Dashboard



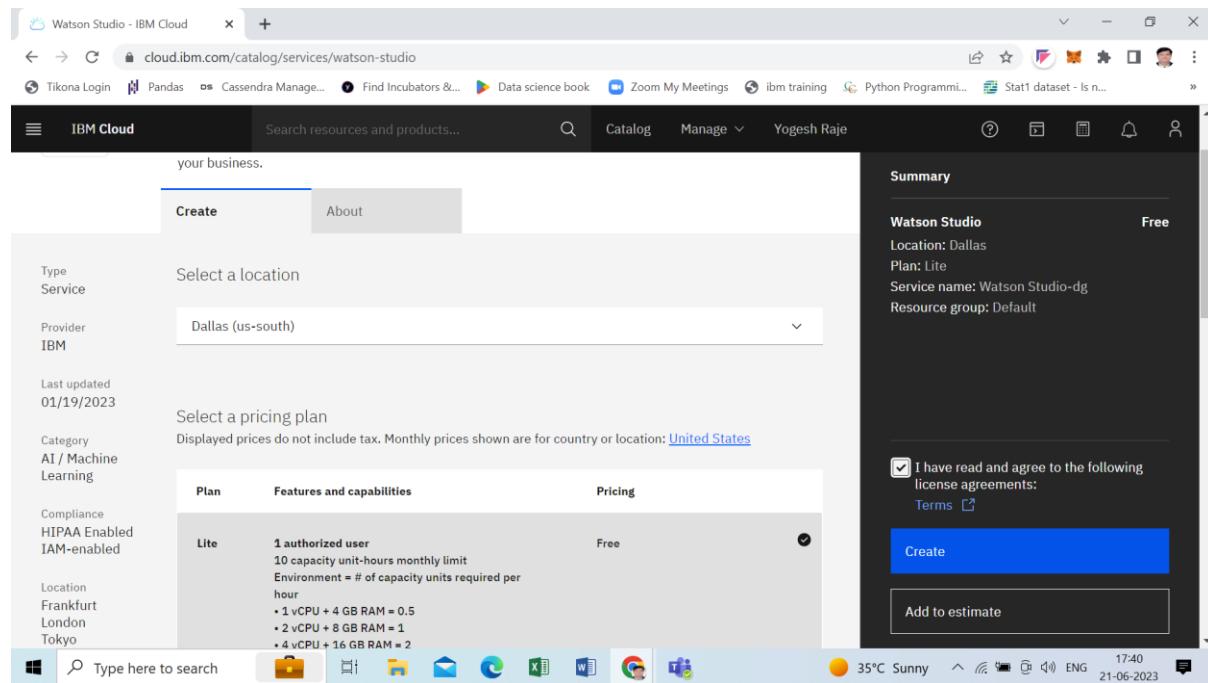
Step2 – Create IBM Watson Studio Service

In dashboard search for Watson studio service

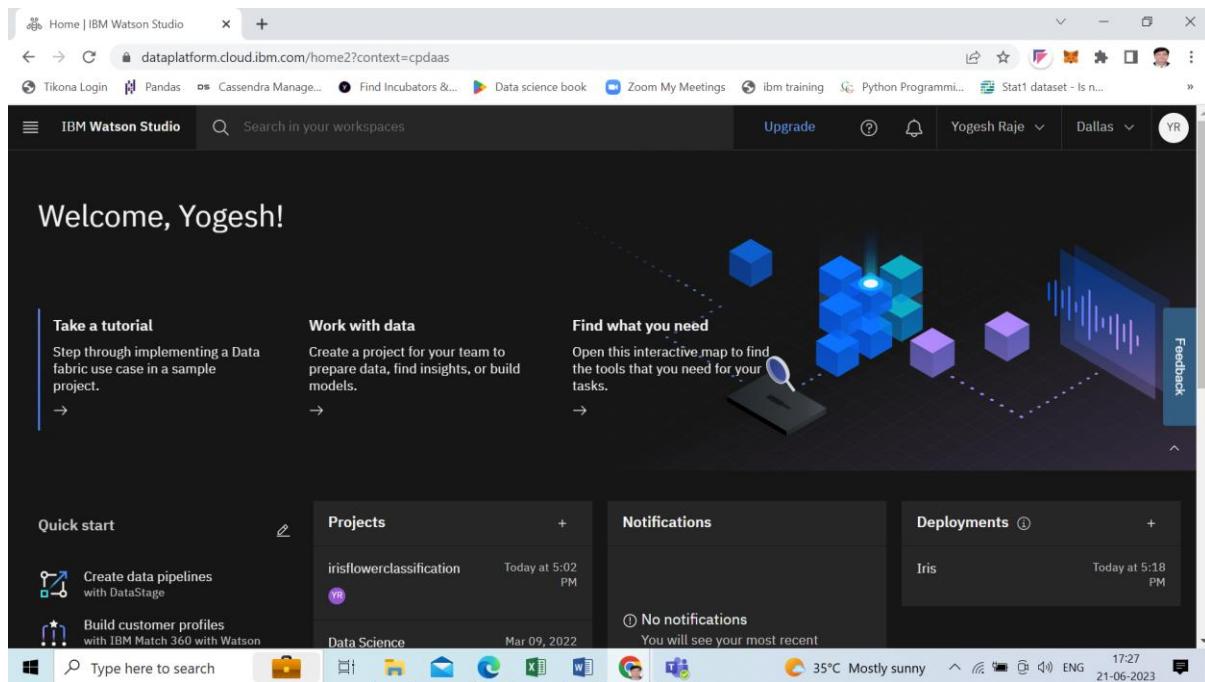


The screenshot shows the IBM Cloud dashboard with the search term "Watson studio" entered. The results page displays various services under the "Watson Studio" category. The "Watson Studio" service is selected, showing its details: "Watson Studio" Service, "Watson Studio" icon, and a brief description. To the right, there are two cards: "Get Started with Watson Studio" and "Build with Watson". The status bar at the bottom indicates the URL as <https://cloud.ibm.com/catalog/services/watson-studio>.

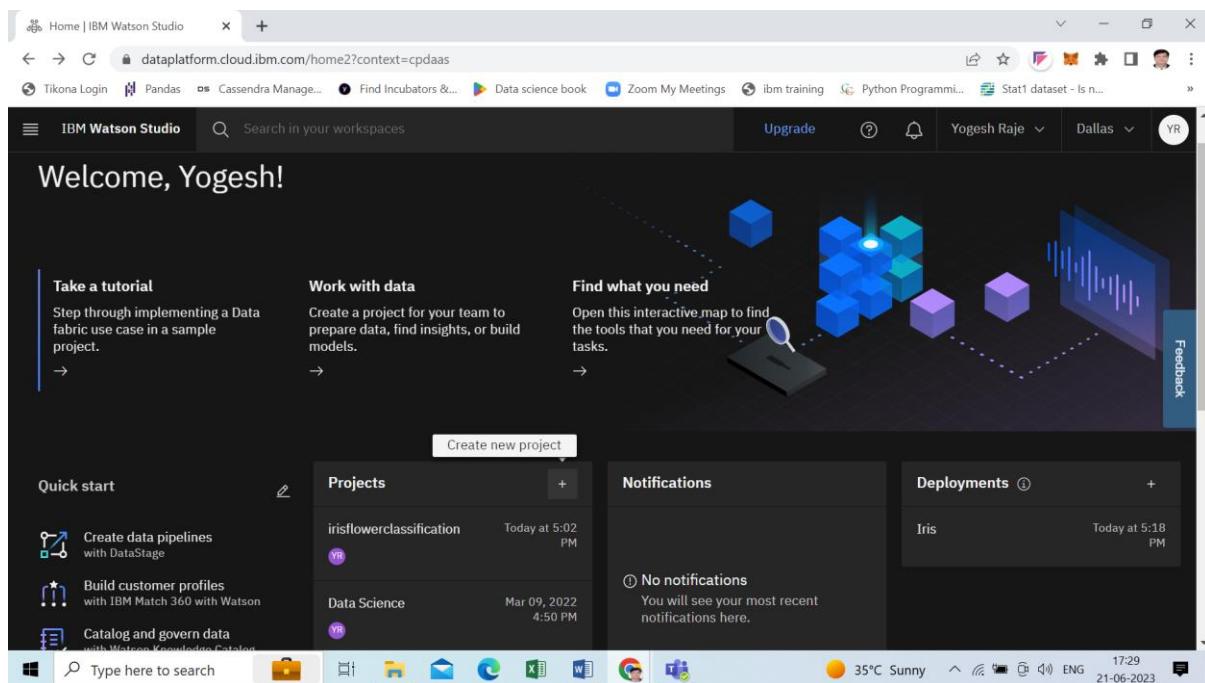
Select Location as Dallas(us-south) and click on Create Button



The screenshot shows the "Create Watson Studio" wizard. On the left, there are several filter and search options. In the center, the "Create" tab is selected, showing a dropdown for "Select a location" with "Dallas (us-south)" chosen. To the right, the "Summary" section displays the service details: "Watson Studio", "Location: Dallas", "Plan: Lite", "Service name: Watson Studio-dg", and "Resource group: Default". At the bottom, there is a checkbox for accepting license agreements and a large blue "Create" button.

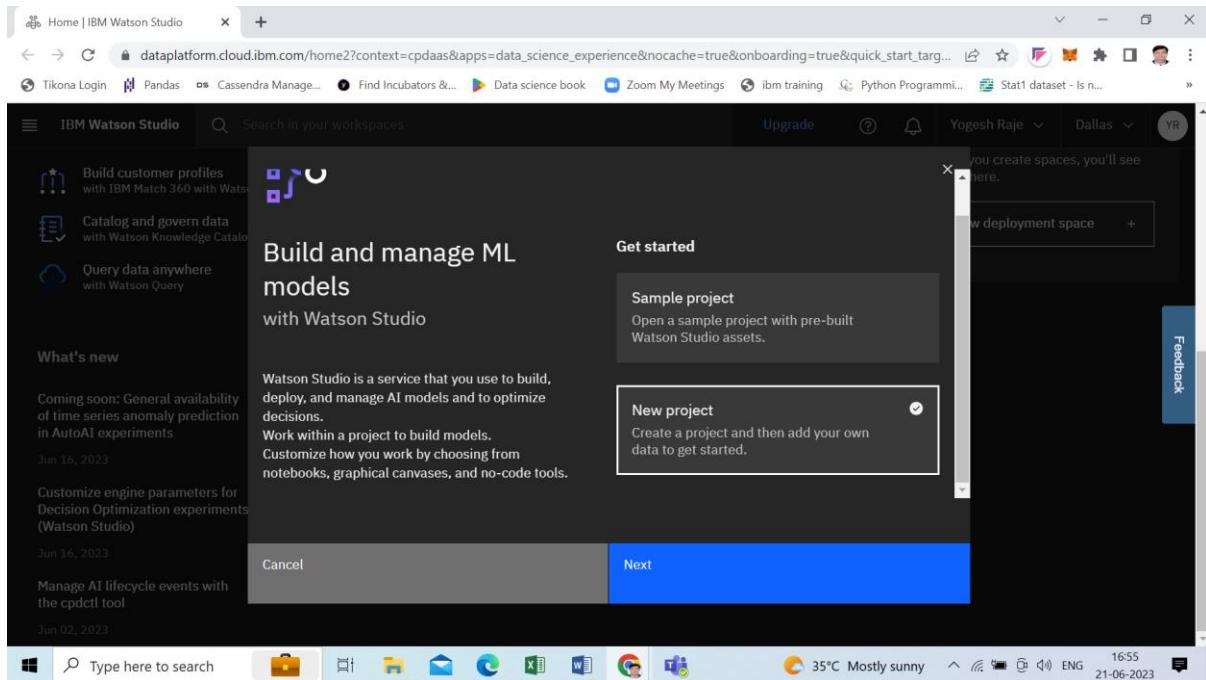


Step3 – Create new project

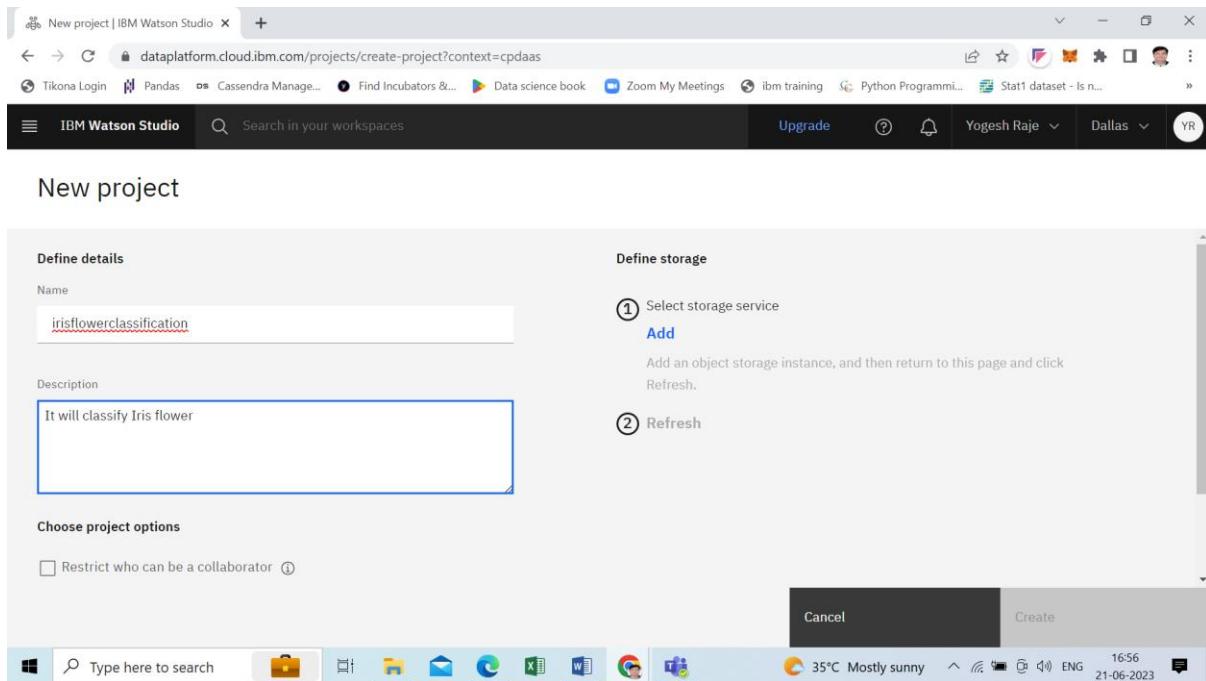


The screenshot shows the IBM Cloud interface with the service 'Watson Studio-gu' selected. The main content area displays the 'Cloud Pak for Data' section, specifically the 'Data' component. It includes a brief description of Watson Studio's role in the data fabric architecture, mentioning its integration with Cloud Pak for Data, Watson Studio, and the base cloud infrastructure. A large 3D diagram illustrates the layers: Watson Studio at the top, followed by a stack of blue cubes representing data, and the 'IBM Cloud' base cloud infrastructure at the bottom. A 'Launch in IBM Cloud Pak for Data' button is visible. The top navigation bar shows various tabs like Catalog, Manage, and Details, along with user information.

The screenshot shows the IBM Watson Studio home page. On the left, there's a sidebar with 'What's new' sections for AutoAI experiments (Jun 16, 2023) and Decision Optimization experiments (Jun 16, 2023). The main content area features a 'Build and manage ML models with Watson Studio' section, which describes Watson Studio as a service for building, deploying, and managing AI models. It also mentions working within projects and customizing workspaces. To the right, a 'Get started' panel is open, showing two options: 'Provision Watson Studio' (Create an instance from the service catalog) and 'Provision Watson Machine Learning' (Create an instance of Watson Machine Learning from the service catalog). At the bottom, there are 'Cancel' and 'Next' buttons. The top navigation bar includes links for Catalog, Manage, Upgrade, and user profile information.



Step4- Add project details and click on **Add** link to select storage service

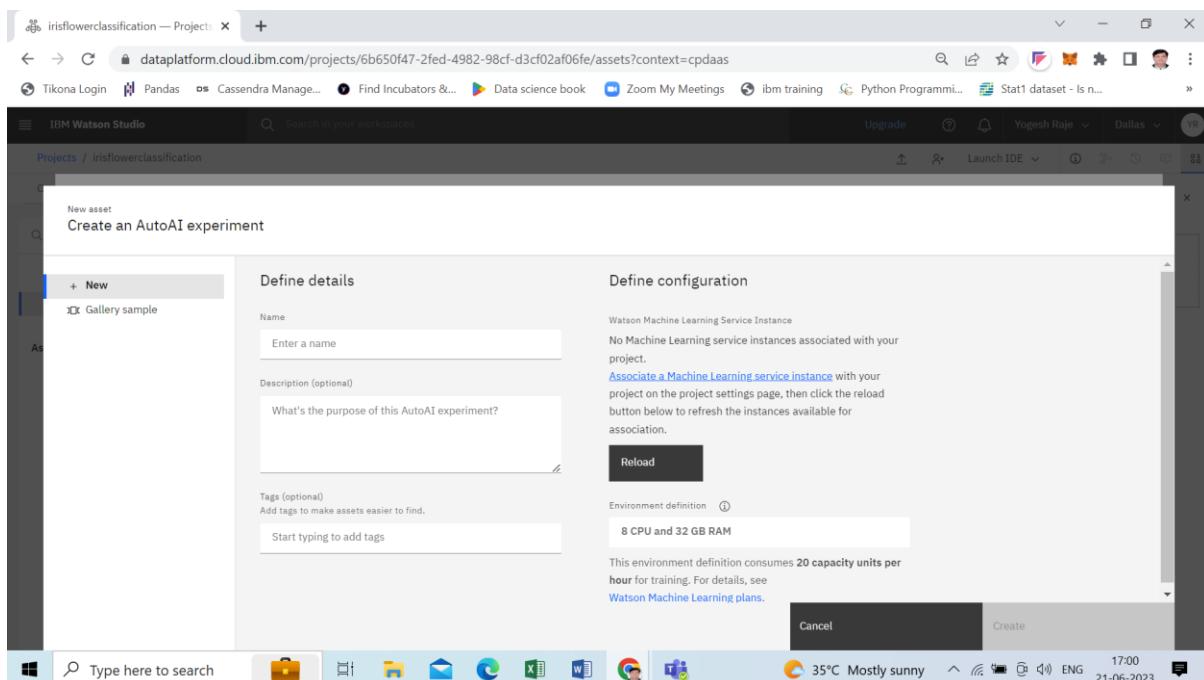
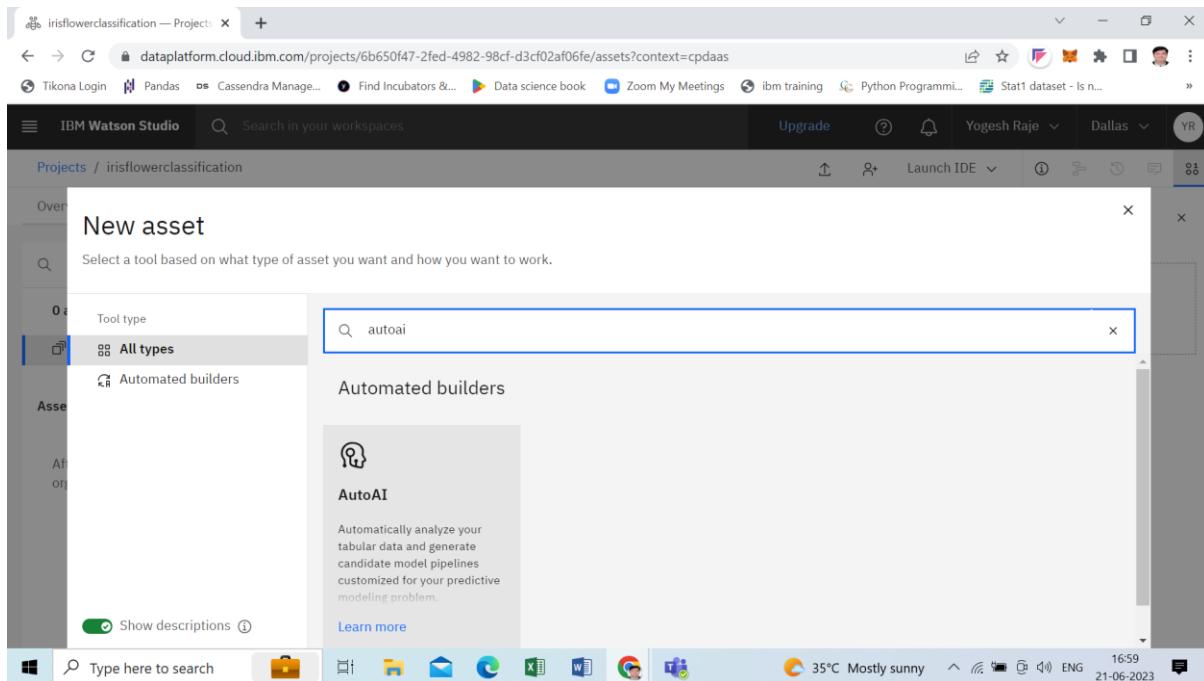


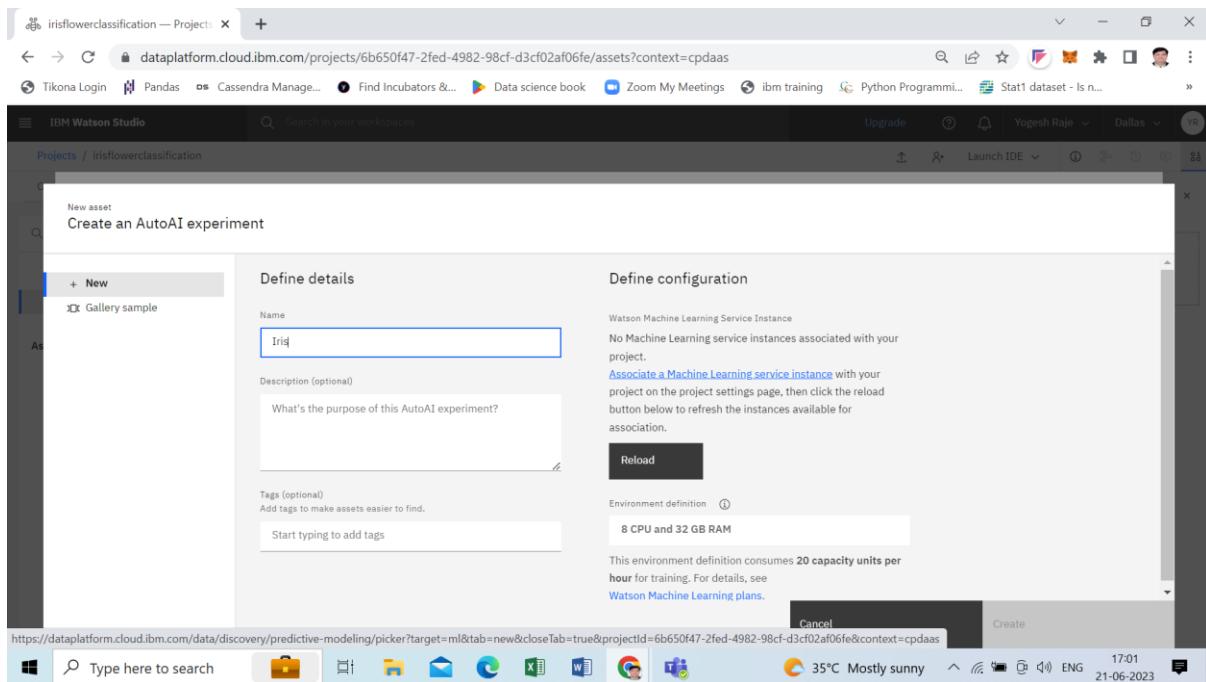
The screenshot shows the IBM Watson Studio interface. The top navigation bar includes tabs for 'New project | IBM Watson Studio' and 'Cloud Object Storage — Services'. The address bar displays the URL: dataplatform.cloud.ibm.com/data/catalog/cloud-object-storage?context=cpdaas&target=cloud-object-storage&closeTab=true. The main content area is titled 'Cloud Object Storage' with a sub-section 'One Rate'. The 'About' tab is selected. The 'Plan' section describes the One Rate plan as offering a flat monthly charge for capacity and bandwidth. The 'Features' section lists built-in allowances for outbound bandwidth and data access. The 'Pricing' section includes a link to 'See pricing details'. On the right, a summary panel shows the service name as 'Cloud Object Storage-sy' and the resource group as 'Default'. A large blue 'Create' button is visible at the bottom of the summary panel.

Step5 – Click on Assets tab and click on New asset button

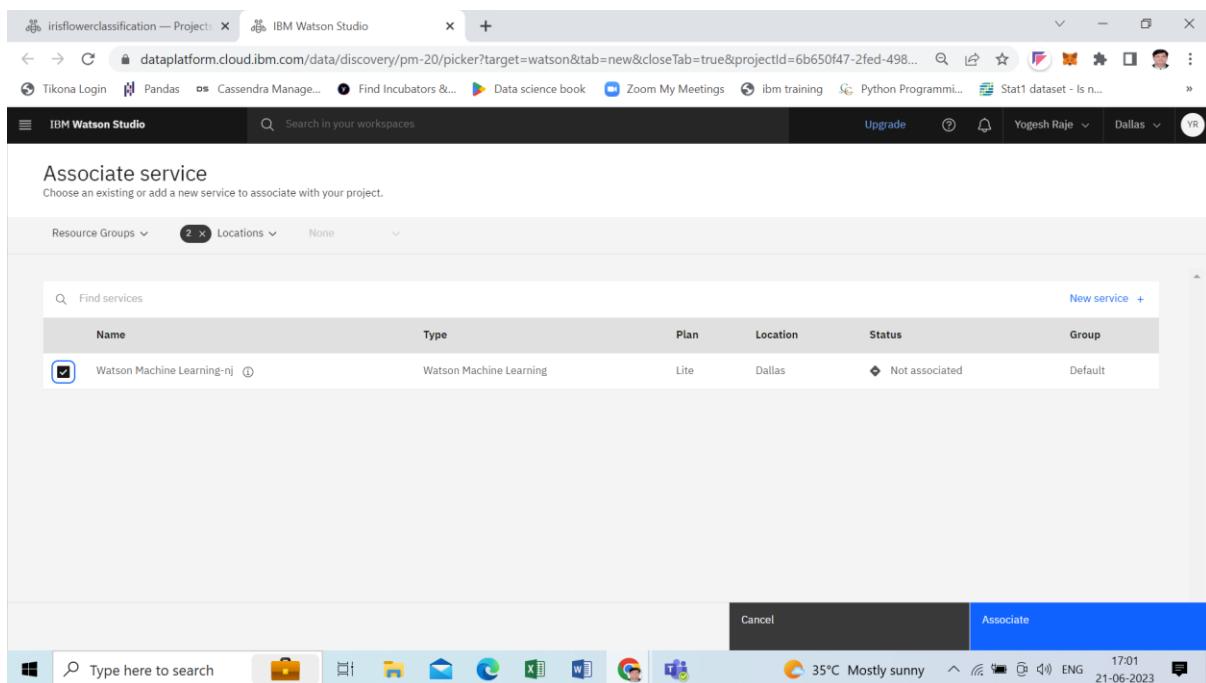
The screenshot shows the IBM Watson Studio interface with a project named 'irisflowerclassification'. The top navigation bar includes tabs for 'Projects' and 'irisflowerclassification'. The address bar displays the URL: dataplatform.cloud.ibm.com/projects/6b650f47-2fed-4982-98cf-d3cf02af06fe/assets?context=cpdaas. The main content area is titled 'Assets' with a sub-section 'All assets'. The 'Overview' tab is selected. The left sidebar shows 'Asset types' and a note that assets are organized by type. The right sidebar contains a 'Data in this project' section with a placeholder for uploaded files. A prominent blue 'New asset' button is located in the top right of the assets section.

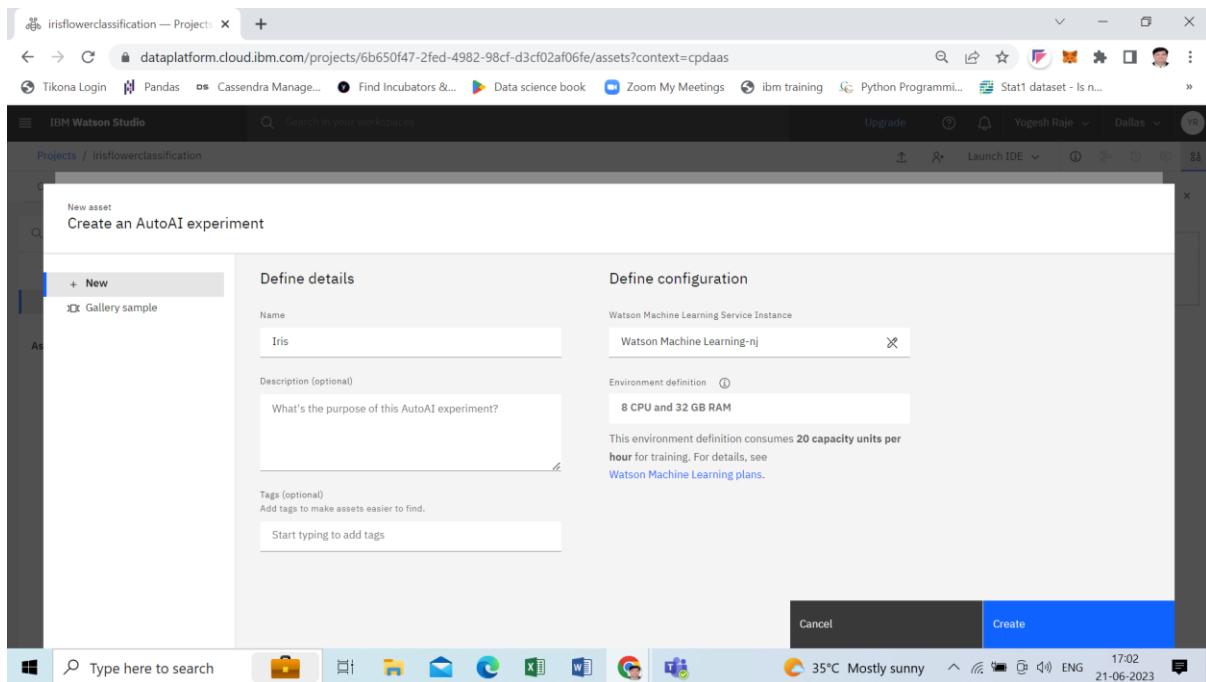
Step5a – Search and Select Machine Learning with AutoAI



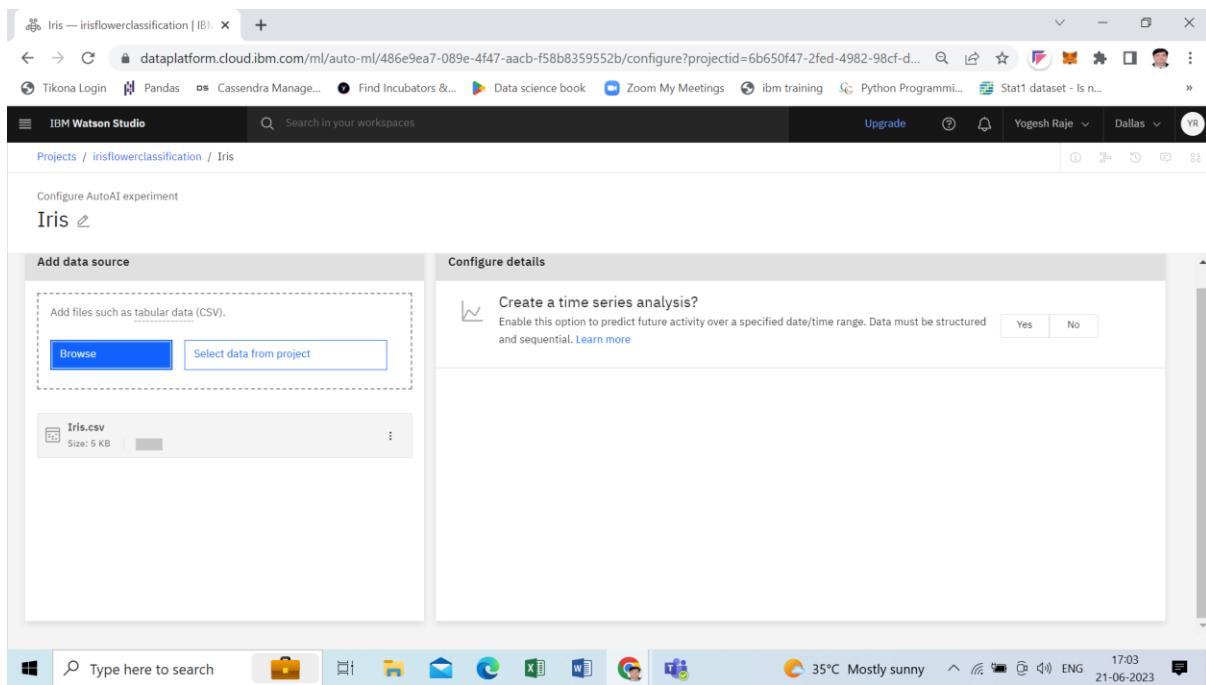


Step6 – Select Associate service

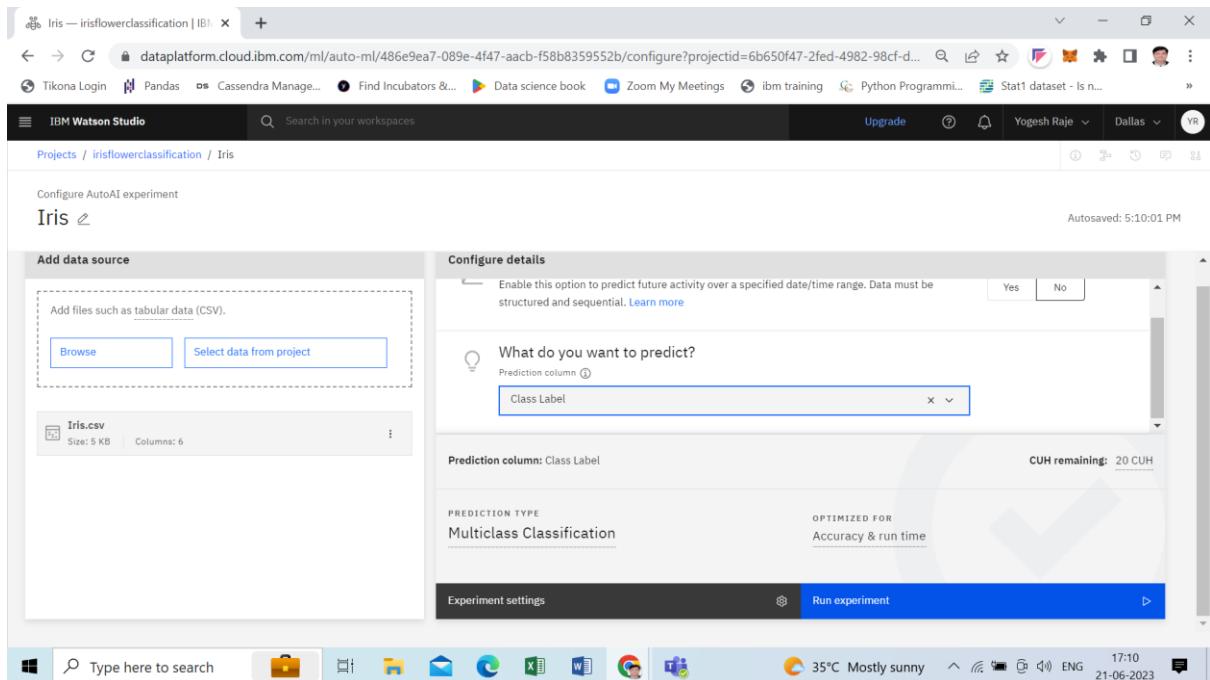




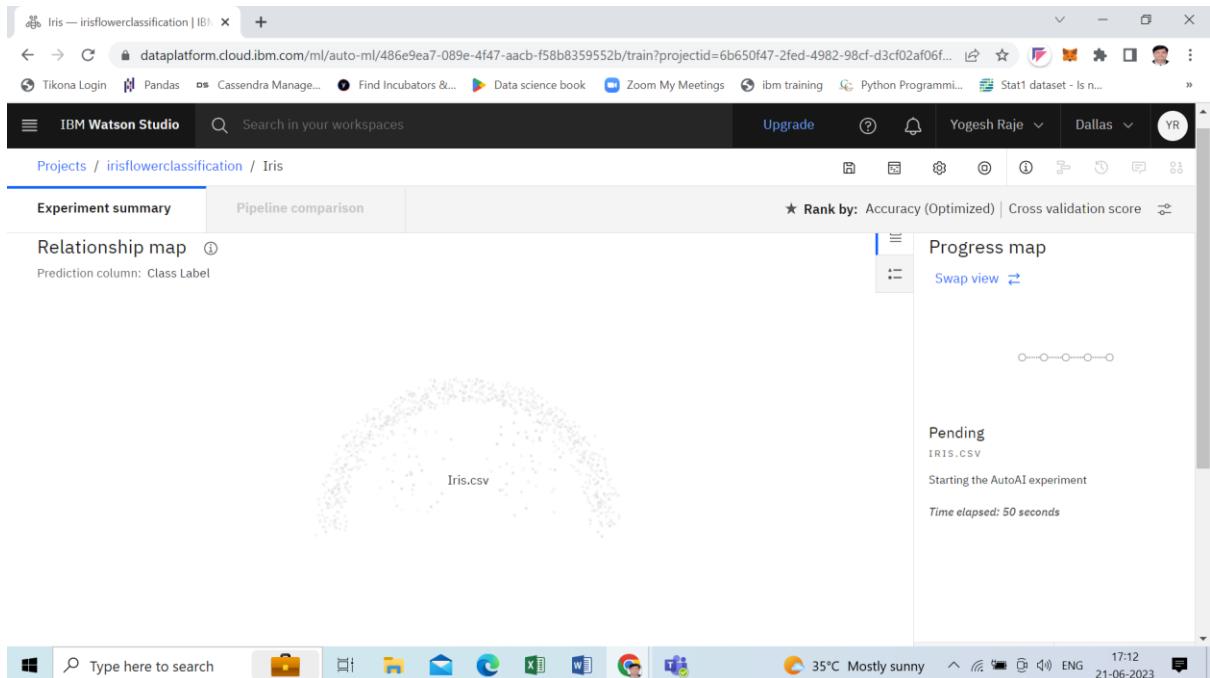
Step7- Upload your dataset,e.g. Iris.csv . Click on **No** button for Create a time series analysis

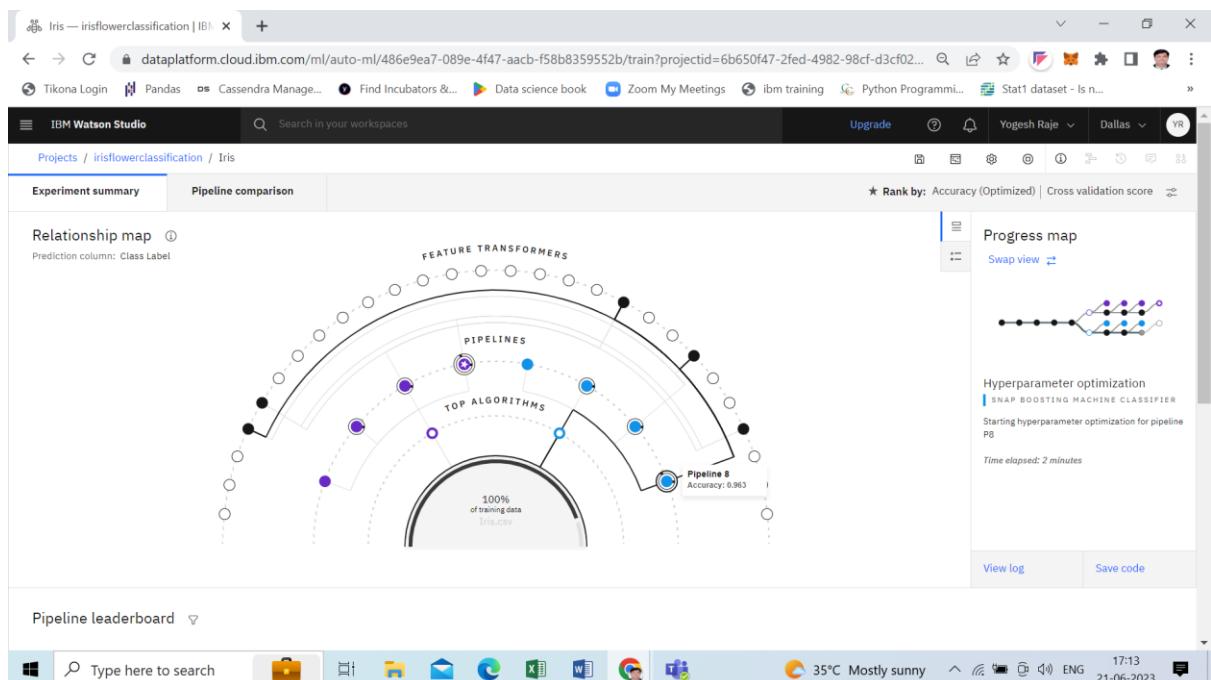
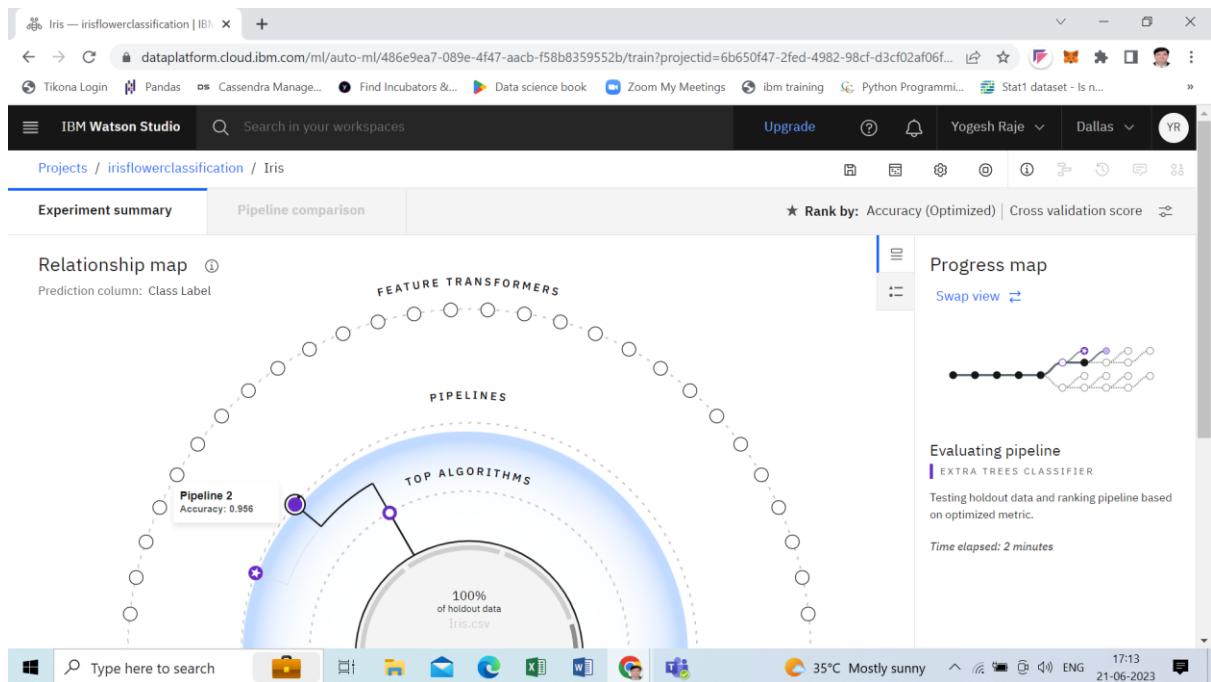


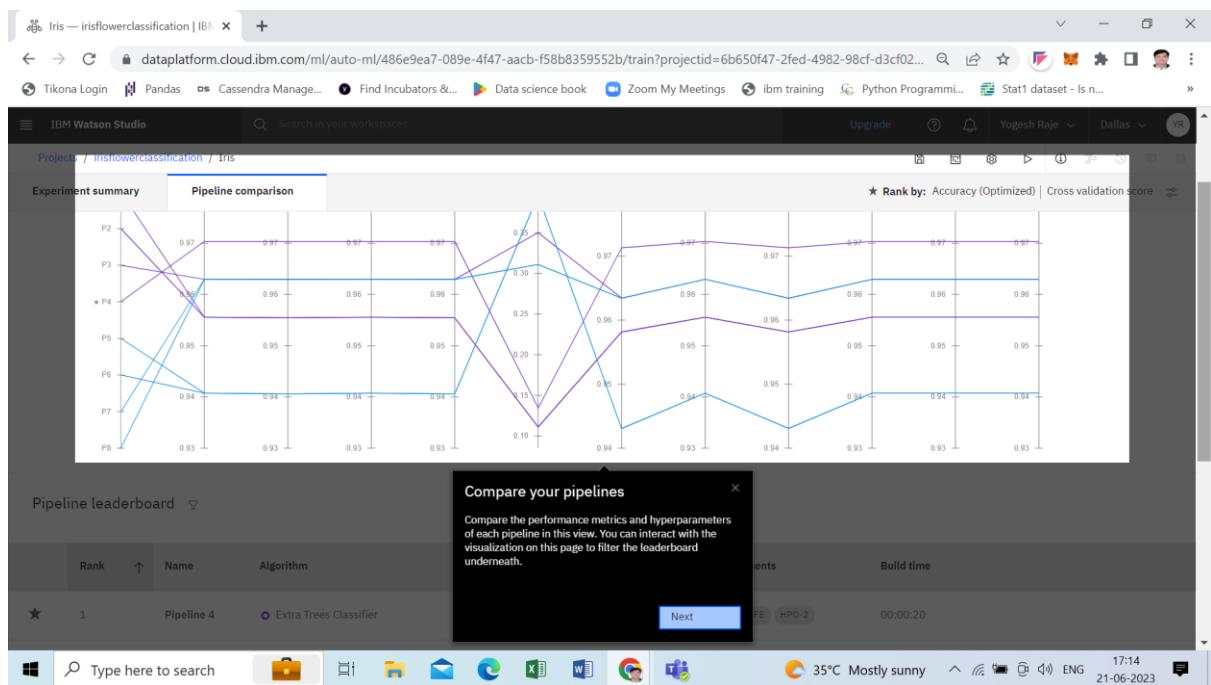
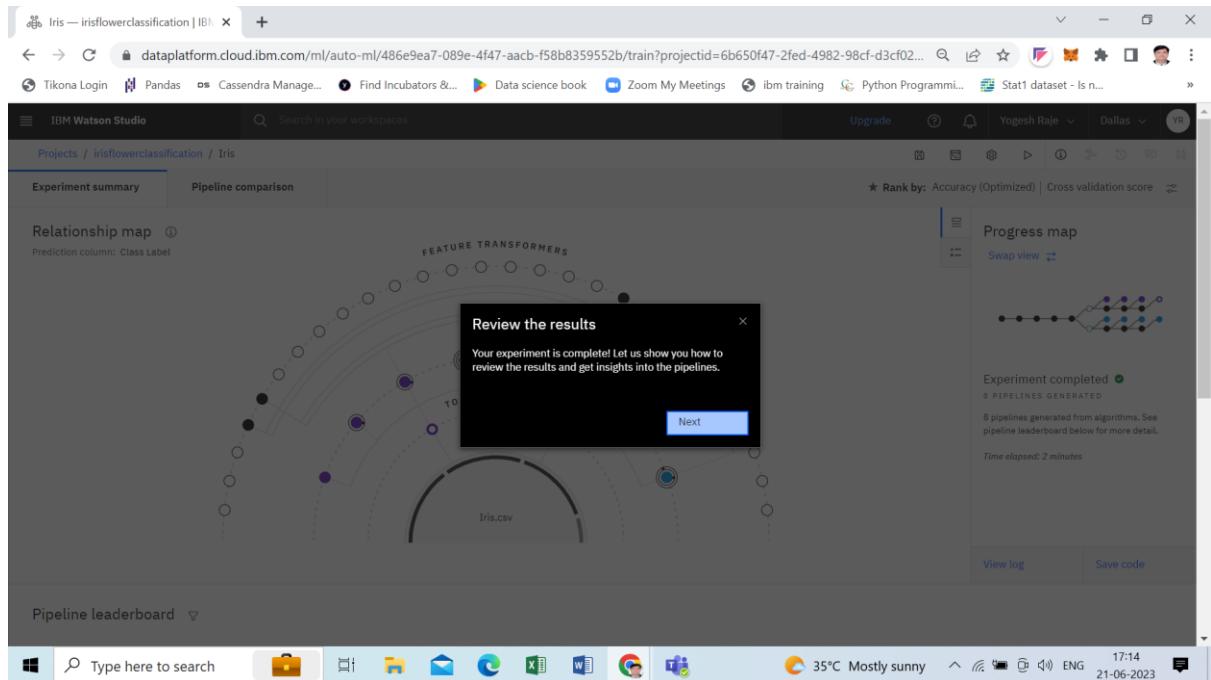
Step8- under what do you want to predict, select your **target label** and click on **Run Experiment**



Step9 – View the result of your experiment







Iris — irisflowerclassification | IBM

View your ranked pipelines

The pipelines are ranked according to overall performance for the selected metric. Click a pipeline to view its details.

Rank by: Accuracy (Optimized) | Cross validation score

Pipeline leaderboard

Rank	Name	Algorithm	Accuracy (Optimized) Cross Validation	Enhancements	Build time
1	Pipeline 4	Extra Trees Classifier	0.970	HPO-1 FE HPO-2	00:00:20
2	Pipeline 8	Snap Boosting Machine Classifier	0.963	HPO-1 FE HPO-2	00:00:40
3	Pipeline 7	Snap Boosting Machine Classifier	0.963	HPO-1 FE	00:00:30
4	Pipeline 3	Extra Trees Classifier	0.963	HPO-1 FE	00:00:15
5	Pipeline 2	Extra Trees Classifier	0.956	HPO-1	00:00:02
6	Pipeline 1	Extra Trees Classifier	0.956	None	00:00:01
7	Pipeline 6	Snap Boosting Machine Classifier	0.941	HPO-1	00:00:05
8	Pipeline 5	Snap Boosting Machine Classifier	0.941	None	00:00:01

Type here to search

35°C Mostly sunny 17:15 21-06-2023

Iris — irisflowerclassification | IBM

Search in your workspaces

Projects / irisflowerclassification / Iris

Experiment summary Pipeline comparison

Rank by: Accuracy (Optimized) | Cross validation score

Pipeline leaderboard

Rank your way

Choose the metric that determines how the pipelines are ranked. This preference applies to all views on this page.

Rank	Name	Algorithm	Accuracy (Optimized) Cross Validation	Enhancements	Build time
1	Pipeline 4	Extra Trees Classifier	0.970	HPO-1 FE HPO-2	00:00:20
2	Pipeline 8	Snap Boosting Machine Classifier	0.963	HPO-1 FE HPO-2	00:00:40
3	Pipeline 7	Snap Boosting Machine Classifier	0.963	HPO-1 FE	00:00:30

Type here to search

35°C Mostly sunny 17:15 21-06-2023

Iris — irisflowerclassification | IBM

dataplatform.cloud.ibm.com/ml/auto-ml/486e9ea7-089e-4f47-aacb-f58b839552b/train?projectId=6b650f47-2fed-4982-98cf-d3cf02af06...

Tikona Login Pandas Cassandra Manage... Find Incubators &... Data science book Zoom My Meetings ibm training Python Programmi... Stat1 dataset - Is n... Dallas YR

IBM Watson Studio Search in your workspaces Upgrade ? Bell Yogesh Raje

Projects / irisflowerclassification / Iris

Experiment summary Pipeline comparison

All set!

You've just gotten an overview of the **AutoAI Pipeline Creation Experience**. To learn more about AutoAI, click the Assistance icon () to see other tours and learning resources.

Validation score

Pipeline leaderboard

Rank	Name	Algorithm	Accuracy (Optimized) Cross Validation	Enhancements	Build time
1	Pipeline 4	Extra Trees Classifier	0.970	HPO-1 FE HPO-2	00:00:20
2	Pipeline 8	Snap Boosting Machine Classifier	0.963	HPO-1 FE HPO-2	00:00:40
3	Pipeline 7	Snap Boosting Machine Classifier	0.963	HPO-1 FE	00:00:30

Type here to search

35°C Mostly sunny 17:15 21-06-2023

IBM Watson Studio

Search in your workspaces

Upgrade

Yogesh Raje

Dallas

Projects / irisflowerclassification / Iris

Experiment summary Pipeline comparison ★ Rank by: Accuracy (Optimized) | Cross validation score

Pipeline leaderboard

Rank	Name	Algorithm	Accuracy (Optimized) Cross Validation	Enhancements	Build time
1	Pipeline 4	Extra Trees Classifier	0.970	HPO-1 FE HPO-2	00:00:20
2	Pipeline 8	Snap Boosting Machine Classifier	0.963	HPO-1 FE HPO-2	00:00:40
3	Pipeline 7	Snap Boosting Machine Classifier	0.963	HPO-1 FE	00:00:30
4	Pipeline 3	Extra Trees Classifier	0.963	HPO-1 FE	00:00:15

Step10 – Save your model

Rank	Name	Algorithm	Accuracy (Optimized) Cross Validation	Enhancements	Build time
1	Pipeline 4	Extra Trees Classifier	0.970	HPO-1 FE HPO-2	00:00:20
2	Pipeline 8	Snap Boosting Machine Classifier	0.963	HPO-1 FE HPO-2	00:00:40
3	Pipeline 7	Snap Boosting Machine Classifier	0.963	HPO-1 FE	00:00:30
4	Pipeline 3	Extra Trees Classifier	0.963	HPO-1 FE	00:00:15
5	Pipeline 2	Extra Trees Classifier	0.956	HPO-1	00:00:02
6	Pipeline 1	Extra Trees Classifier	0.956	None	00:00:01

Saved model successfully.
Iris - P4 Extra Trees Classifier was successfully saved to irisflowerclassification.

Iris - P4 Extra Trees Classifier

Promote to deployment space

Input Schema

Column	Type
Id	"integer"
PetalLengthCm	"double"
PetalWidthCm	"double"
SepalLengthCm	"double"
SepalWidthCm	"double"

Description: No description provided.

Created: Jun 21, 2023, 5:16 PM

Type: wml-hybrid_0.1

Model ID: eb487335-1ea2-4ac9-a10f-1fe447ea223f

Software specification: hybrid_0.1

Hybrid pipeline software specifications: autoai-kb_rt22.2-py3.10

Iris: Promote to space

Use a deployment space to organize supporting resources such as input data and environments.

Create a deployment space

Use a space to collect assets in one place to create, run, and manage deployments.

Define details

Name: Iris

Description (Optional): Deployment space description

Cancel Create

Iris - P4 Extra Trees Classifier

Input Schema

Column	Type
Id	"integer"
PetalLengthCm	"double"
PetalWidthCm	"double"
SepalLengthCm	"double"
SepalWidthCm	"double"

Promote to deployment space

Success
Successfully promoted Iris - P4 Extra Trees Classifier to the deployment space. Go to the deployment space to prepare the assets for deployment.

Timestamp 5:18:27 PM
Created Jun 21, 2023, 5:16 PM
Type wml-hybrid_0.1
Model ID eb487335-1ea2-4ac9-a10f-1...
Software specification hybrid_0.1
Hybrid pipeline software specifications autoai-kb_rt22.2-py3.10

irisflowerclassification — Project

Assets

Name	Last modified
Iris - P4 Extra Trees Classifier	3 minutes ago Modified by you
Iris	3 minutes ago Modified by you
Iris.csv	10 minutes ago Modified by you
Dataset-diabetes.csv	11 minutes ago Modified by you

Find assets Import assets New asset

Data in this project
Drop data files here or browse for files to upload

Overview Assets Jobs Manage

Items per page: 20 1–4 of 4 items 1 of 1 pages

The screenshot shows the 'Projects' page in IBM Watson Studio. The page displays a table of projects with columns for Name, Date created, Your role, and Collaborators. Two projects are listed: 'irisflowerclassification' (created 22 minutes ago, Admin, 1 collaborator) and 'Data Science' (created 1 year ago, Admin, 1 collaborator). A search bar at the top allows users to 'Find a project'. A 'New project' button is located in the top right corner. The bottom of the screen shows a Windows taskbar with various icons and system status information.

Name	Date created	Your role	Collaborators
irisflowerclassification	22 minutes ago	Admin	YR
Data Science	1 year ago	Admin	YR

Items per page: 20 1–2 of 2 items

1 1 of 1 pages

Windows Taskbar: Type here to search, File, Home, Mail, Edge, Excel, Word, Google Chrome, Teams, 35°C Mostly sunny, 17:19, 21-06-2023

Congratulations! You successfully created your machine learning model using IBM Watson studio.