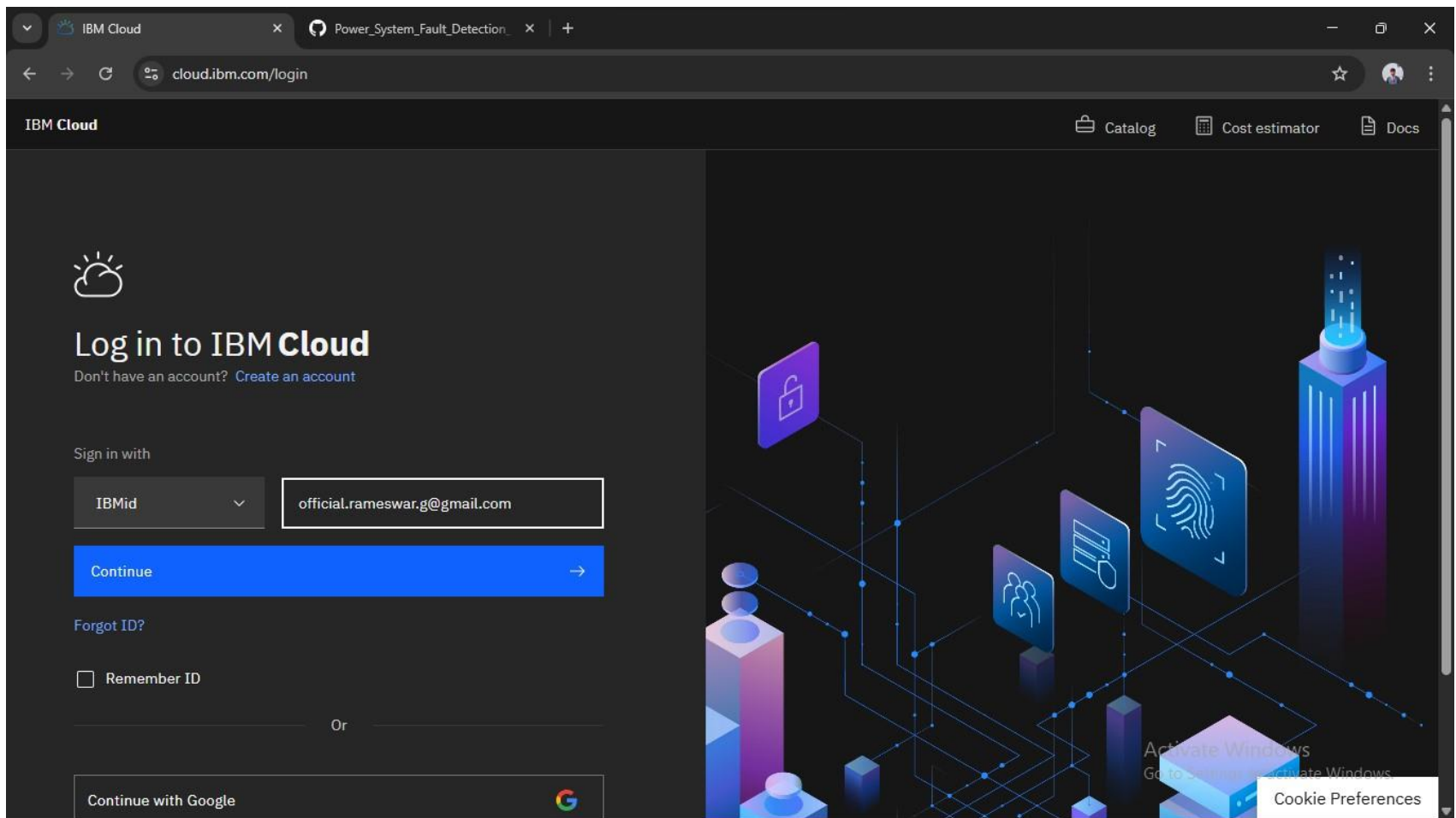
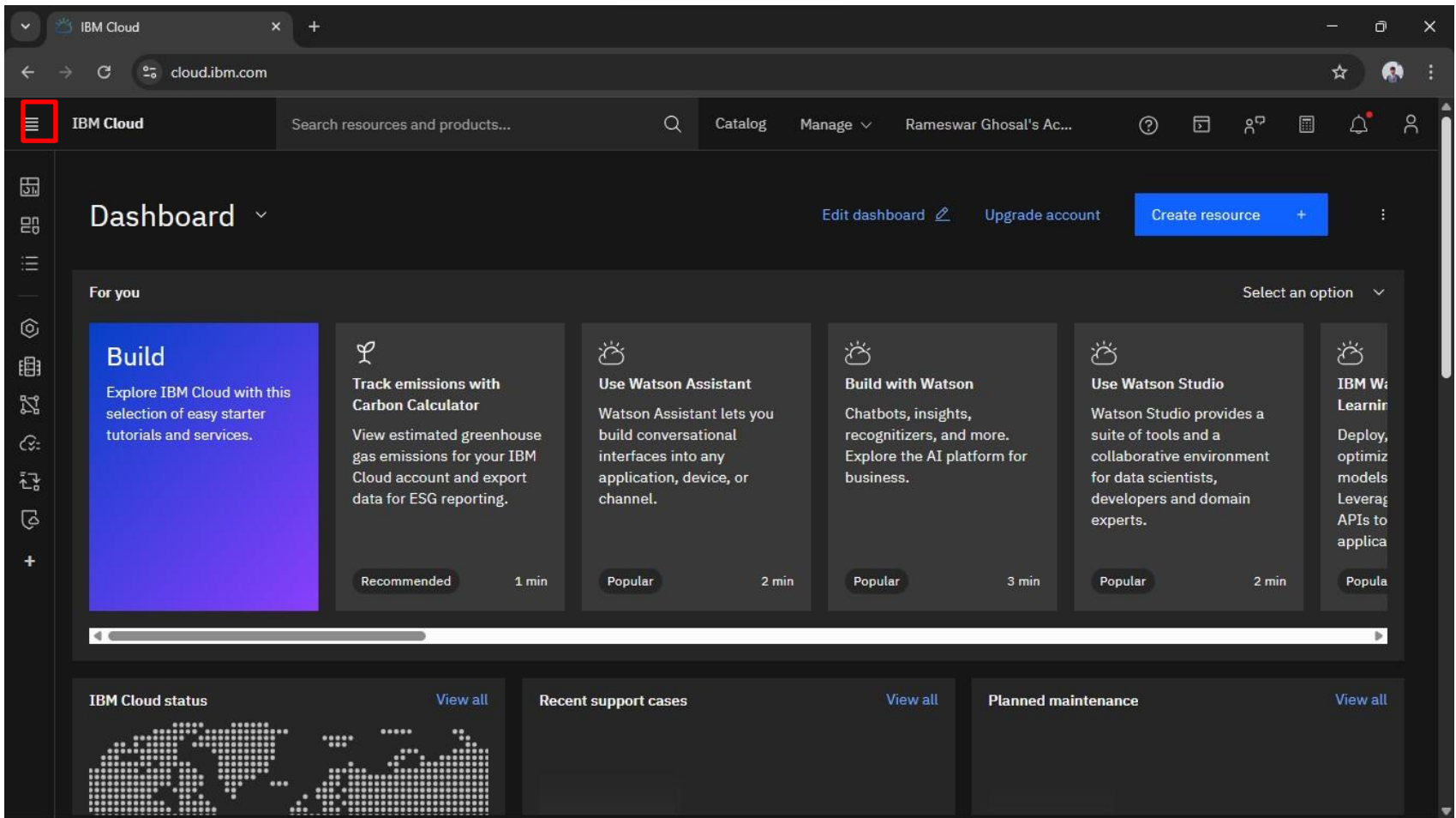


1. Log in to your IBM Cloud account.



2. Click on navigation manu in the IBM cloud dashboard.



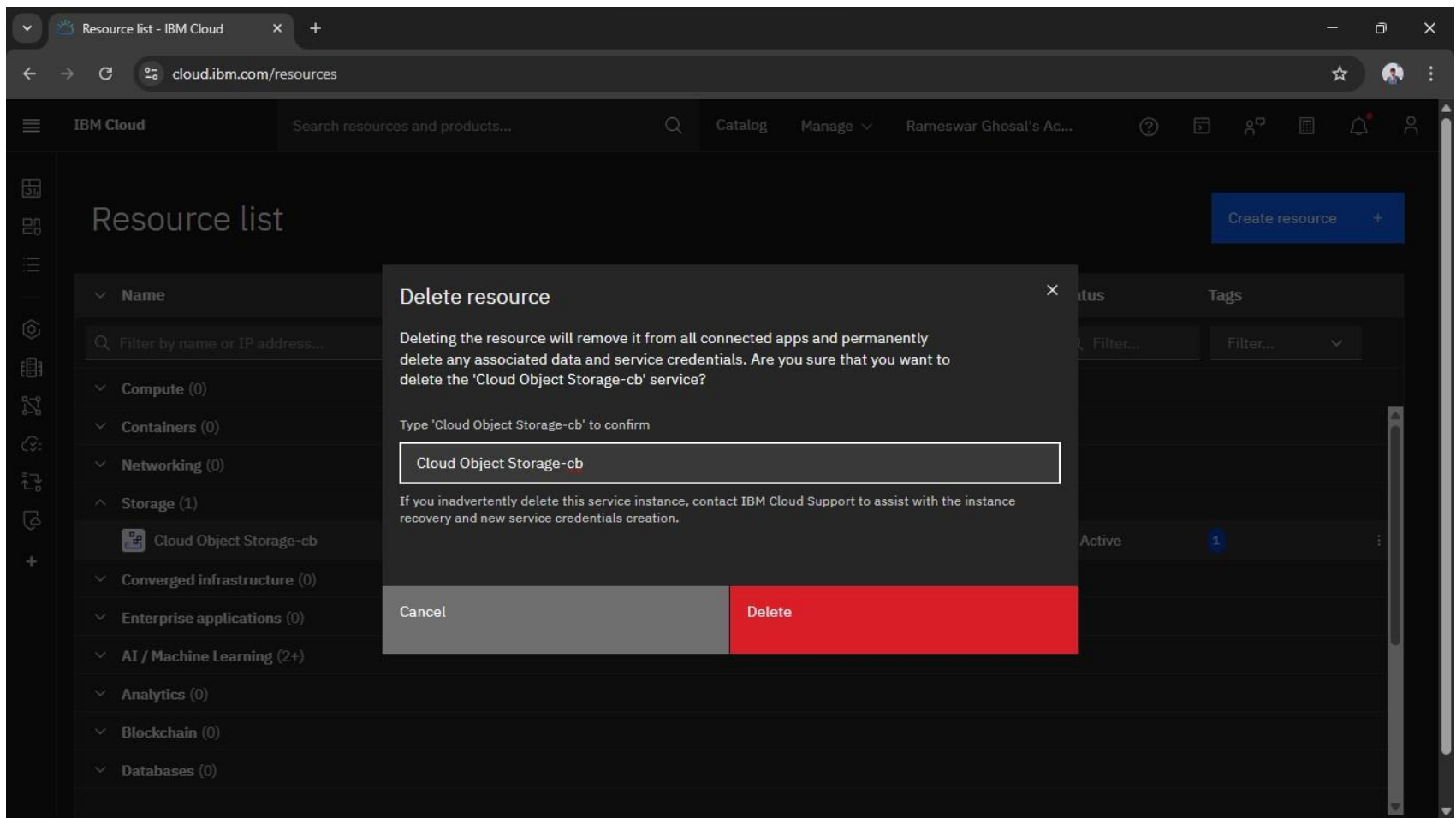
3. Delete all resources from the resource list.

The screenshot displays the IBM Cloud Resource list interface. The top navigation bar features the IBM Cloud logo, a search bar, and user information. The main content area is titled "Resource list" and includes a "Create resource" button. Below the title, there is a table with columns for Name, Group, Location, Product, Status, and Tags. The table is currently empty, showing only the category names and their counts in parentheses. The categories listed are:

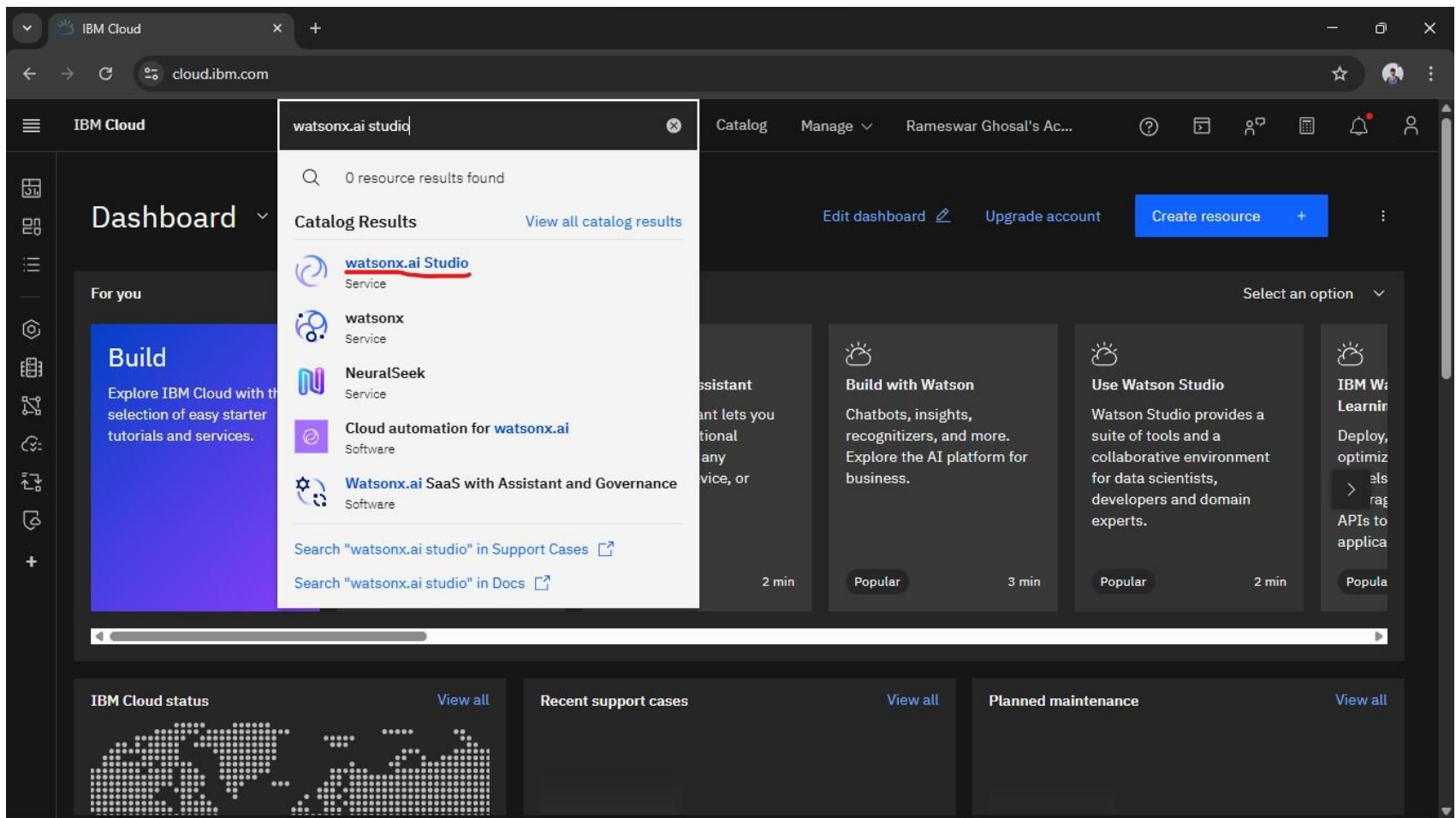
- Compute (0)
- Containers (0)
- Networking (0)
- Storage (1+)
- Converged infrastructure (0)
- Enterprise applications (0)
- AI / Machine Learning (2+)
- Analytics (0)
- Blockchain (0)
- Databases (0)
- Developer tools (0)

The "Storage (1+)" and "AI / Machine Learning (2+)" categories are highlighted with red boxes.

4. Copy the resource name and paste it in the box for deleting the resource.



5. Click on search bar and type “watsonx.ai Studio”.
Select the service.



6. Click on the checkbox and click on create button.

The screenshot displays the IBM Cloud Watsonx.ai Studio service page. The main content area is titled 'watsonx.ai Studio' and includes a description: '(Formerly known as Watson Studio) Develop powerful AI solutions with an integrated collaborative studio and industry-standard APIs and SDKs.' The 'Create' tab is active, showing a 'Select a location' dropdown menu with 'Sydney (au-syd)' selected. Below this, there is a 'Select a pricing plan' section with a table of plans. The 'Lite' plan is selected, showing 1 authorized user and 10 capacity unit-hours monthly limit. A summary sidebar on the right shows the service is free. A checkbox for license agreement is checked, and the 'Create' button is highlighted in blue.

Summary

watsonx.ai Studio **Free**

Location: Sydney (au-syd)
Plan: Lite
Service name: watsonx.ai Studio-9e
Resource group: Default

☒ I have read and agree to the following license agreements:
[Terms](#)

Create

Add to estimate

Plan	Features and capabilities	Pricing
Lite	1 authorized user 10 capacity unit-hours monthly limit Environment = # of capacity units required per hour • 1 vCPU + 4 GB RAM = 0.5 • 2 vCPU + 8 GB RAM = 1	Free

7. Click on the “Launch in”.

The screenshot shows the IBM Cloud Service Details page for 'watsonx.ai Studio-9e'. The page has a dark theme. At the top, there's a navigation bar with the IBM Cloud logo, a search bar, and user information. Below the navigation bar, the service name 'watsonx.ai Studio-9e' is displayed with a green checkmark and an 'Add tags' link. To the right of the service name are 'Details' and 'Actions' buttons. On the left side, there's a sidebar with 'Manage' and 'Plan' options. The main content area features a large heading 'watsonx.ai Studio in Cloud Pak for Data and watsonx' with a small icon. Below the heading, there's a paragraph: 'Build and deploy machine learning models on either platform. Work with foundation models on watsonx as a Service.' A prominent blue 'Launch in' button is located at the bottom left of the main content area. To the right of the text, there's a 3D diagram showing a stack of blue cubes representing the architecture. Labels point to different layers: 'IBM watsonx.ai Studio in Cloud Pak for Data and watsonx' at the top, 'IBM Cloud Pak for Data, watsonx Unifying platforms' in the middle, and 'IBM Cloud Base cloud infrastructure' at the bottom. Below the diagram, a paragraph states: 'IBM watsonx.ai Studio is part of IBM Cloud Pak for Data and watsonx, and serves as the AI capability of the data fabric architecture.' At the bottom left, there's a 'Helpful links' section.

Service Details - IBM Cloud

cloud.ibm.com/services/data-science-experience/crn%3Av1%3Abluemix%3Apublic%3Adata-science-experience%3Aau-syd%3Aa%2Fb15a9285a8804913af7bbe98e1bf2cd7%...

IBM Cloud

Search resources and products...

Catalog Manage Rameswar Ghosal's Ac...


Resource list /

watsonx.ai Studio-9e ✓ [Add tags](#)

[Details](#) [Actions](#)

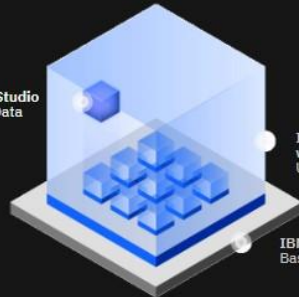
Manage

Plan

 **watsonx.ai Studio**
in
Cloud Pak for Data
and **watsonx**

Build and deploy machine learning models on either platform. Work with foundation models on watsonx as a Service.

[Launch in](#)



IBM watsonx.ai Studio is part of IBM Cloud Pak for Data and watsonx, and serves as the AI capability of the data fabric architecture.

Helpful links

8. Select “provision watsonx.ai Runtime” and click on next button.

The screenshot shows the IBM watsonx.ai Studio interface. The main heading is "Welcome, Rameswar!". The central panel is titled "Build and manage ML models with watsonx.ai Studio". It includes a description of the service and a "Get started" section with two options: "Provision watsonx.ai Studio" and "Provision watsonx.ai Runtime". The "Provision watsonx.ai Runtime" option is highlighted with a red box. Below this, there are "Cancel" and "Next" buttons, with the "Next" button also highlighted in a red box. The interface includes a top navigation bar with the IBM logo, a search bar, and user account information. The bottom of the screen shows a list of projects, including "First_Jupyter_Project" with a timestamp of "Jul 19, 2025 4:28 PM".

Service Details - IBM Cloud | Home | IBM watsonx.ai Studio

au-syd.dai.cloud.ibm.com/home?context=cpdaas&apps=data_science_experience&nocache=true&onboarding=true&quick_start_target=data_science_experience

IBM watsonx.ai Studio | Search in your workspaces | Upgrade | Rameswar Ghosal's Account | Sydney | RG

Welcome, Rameswar!

Take a tutorial
Step through implementing a Data fabric use case in a sample project.

Build and manage ML models with watsonx.ai Studio

Get started

Provision watsonx.ai Studio
Create an instance of watsonx.ai Studio from the service catalog.

Provision watsonx.ai Runtime
Create an instance of watsonx.ai Runtime from the service catalog.

Cancel | Next

Quick start

- Build customer profiles with IBM Match 360 with Watson
- Catalog and govern data with watsonx.data intelligence
- Build and manage ML models with watsonx.ai Studio
- Query data anywhere with Data Virtualization

Deployments

No deployment spaces
After you create spaces, you'll see them here.

New deployment space

9. Click on “create” button.

Service Details - IBM Cloud | Home | IBM watsonx.ai Studio

au-syd.dai.cloud.ibm.com/home2?context=cpsdaas&apps=data_science_experience&nocache=true&onboarding=true&quick_start_target=data_science_experience

IBM watsonx.ai Studio | Search | Upgrade | Rameswar Ghosal's Account | Sydney | RG

watsonx.ai Runtime

Author: IBM • Date of last update: Jul 23, 2025 • [Docs](#) • [API Docs](#)

Create | About

Select a region

Select a region

Sydney

Pricing plan

Displayed prices do not include tax. Monthly prices shown are for country or region: United States

Plan	Features	Pricing
Lite	Service instance Instance includes: <ul style="list-style-type: none">• 20 capacity unit-hours (CUH) per month• 50,000 tokens/data points per month• 100 pages per month	Free

Summary

watsonx.ai Runtime

Region: Sydney
Plan: Lite
Service name: watsonx.ai Runtime-tt
Resource group: Default

Create | View terms | Cancel

10. Select “New project” and click on “next”.

The screenshot shows the IBM watsonx.ai Studio web interface. A modal window titled "Build and manage ML models with watsonx.ai Studio" is open. The modal contains the following sections:

- Get started**
 - Sample project**: Open a sample project with pre-built watsonx.ai Studio assets.
 - New project**: Create a project and then add your own data to get started. (This option is highlighted with a red rectangle)
- Buttons**: "Cancel" and "Next" (The "Next" button is highlighted with a red rectangle)

The background interface includes a sidebar with "Take a tutorial" and "Quick start" links, and a main area with a "Deployments" section showing "No deployment spaces".

11. Give a name to your project and give some description.

Service Details - IBM Cloud x New project | IBM watsonx.ai S x +

au-syd.dai.cloud.ibm.com/projects/new-project?context=cpdaas

IBM watsonx.ai Studio Search in your workspaces Upgrade ? Rameswar Ghosal's Account Sydney RG

Create a project

Start with a new, blank project or select from where to import an existing project.

- + New
 - Local file
 - Sample

Define details

Name

Power_System_Fault_Detection

Description (optional)

Design a machine learning model to detect and classify different types of faults in a power distribution system. Using electrical measurement data (e.g., voltage and current phasors), the model should be able to distinguish between normal operating conditions and various fault conditions (such as line-to-ground, line-to-line, or three-phase faults). The objective is to enable rapid and accurate fault identification, which is crucial for maintaining

Tags (optional)

Add tags

Add tags to make projects easier to find. To add tags, separate them with commas and press Enter.

Cancel Create

12. Click on add button to add some storage space.
After selecting the storage click on the “Refresh” button.

The screenshot shows the IBM watsonx.ai Studio interface. The browser address bar displays the URL `au-syd.dai.cloud.ibm.com/projects/new-project?context=cpdaas`. The top navigation bar includes the IBM watsonx.ai Studio logo, a search bar, an 'Upgrade' button, a help icon, a notification bell, and user account information for 'Rameswar Ghosal's Account' in the 'Sydney' region. The main heading is 'Create a project', with a subtext: 'Start with a new, blank project or select from where to import an existing project.'

On the left sidebar, under the '+ New' section, there are two options: 'Local file' and 'Sample'. The main content area is divided into sections:

- Add tags:** A text input field with the placeholder 'Add tags'. Below it, a note says: 'Add tags to make projects easier to find. To add tags, separate them with commas and press Enter.'
- Define storage:** This section contains two numbered steps:
 - ① Select storage service:** This step includes a blue 'Add' button, which is highlighted with a red rectangular box. Below the button, a note states: 'Add an object storage instance, and then return to this page and click Refresh.'
 - ② Refresh:** This step includes a note: 'Project includes integration with [Cloud Object Storage](#) for storing project assets.'
- Advanced settings:** A section with a dropdown arrow.

At the bottom right of the main content area, there are two buttons: 'Cancel' and 'Create'.

13. Select the “Lite(deprecated)” plan and click on “Create” button.

The screenshot shows the IBM Cloud console interface for selecting a Cloud Object Storage plan. The browser address bar shows the URL: `au-syd.dai.cloud.ibm.com/data/catalog/cloud-object-storage?context=cpdaas&target=cloud-object-storage&closeTab=true`. The page header includes the IBM Watson AI Studio logo, a search bar, and user account information for Rameswar Ghosal.

Plan	Features	Pricing
One-Rate	One-Rate Plan is a Pay-as-You-Go option with a single, flat monthly rate (\$/GB) that includes storage, API operations, retrieval, and outbound bandwidth—making it ideal for high-activity workloads with frequent access and data transfer, such as analytics, media, and web apps. The plan includes built-in allowances that scale with stored capacity and offers automatic volume discounts as usage grows	
Lite(deprecated)	<p>Lite plan instance is free to use for Storage capacity up to 25 GB per month. Lite plan instance is used for trial, and can be easily upgraded to Standard plan for unlimited scalability and full functionality.</p> <p>None</p> <p>Lite plan services are deleted after 30 days of inactivity.</p>	Free
Standard	<p>Standard Plan is a flexible Pay-as-You-Go option with no minimum fee—ideal for workloads with large storage needs but low or infrequent access and outbound traffic. It includes a Free Tier with 5GB of Smart Tier storage for 12 months. Charges are based on actual usage, with separate billing for storage, outbound bandwidth, API operations, and data retrieval. Multiple storage classes help you optimize costs based on how often data is accessed.</p> <p>Free Tier allowance:</p> <ul style="list-style-type: none">Storage up to 5GB/monthUp to 2000 Class A requests/monthUp to 20,000 Class B requests/monthUp to 10GB/month of data retrievalUp to 5GB/month of data deletion	

Summary

Cloud Object Storage

Region: Global
Plan: Lite(deprecated)
Service name: Cloud Object Storage-vz
Resource group: Default

Create

[View terms](#)

[Cancel](#)

14. Click on manage section and click “Services & integration” for selecting the service.

The screenshot displays the IBM watsonx.ai Studio web interface. The browser address bar shows the URL: `au-syd.dai.cloud.ibm.com/projects/907ba3d0-e137-4780-8ae2-f70bc3dfafba/manage/general?context=cpdaas`. The top navigation bar includes the IBM watsonx.ai Studio logo, a search bar, an 'Upgrade' button, and user account information for 'Rameswar Ghosal's Account' in 'Sydney'.

The main interface is divided into several sections:

- Project Navigation:** A sidebar on the left lists project management options: General (selected), Access control, Environments, Resource usage, and Services & integrations. Below this, under 'Tools', is 'Pipeline'.
- Manage Section:** The top navigation tabs include Overview, Assets, Jobs, and Manage (which is highlighted with a blue border).
- General Tab:** The 'General' tab is active, showing project details:
 - Name:** Power_System_Fault_Detection
 - Description:** Design a machine learning model to detect and classify different types of faults in a power distribution system. Using electrical measurement data (e.g., voltage and current phasors), the model should be able to distinguish between normal operating conditions and various fault conditions (such as line-to-ground, line-to-line, or three-phase faults). The objective is to enable rapid and accurate fault identification, which is crucial for maintaining power grid stability and reliability.
 - Tags:** A section for adding tags to make projects easier to find.
 - Project ID:** 907ba3d0-e137-4780-8ae2-f70bc3dfafba
- Storage Section:** On the right, the 'Storage' section shows 'Storage used' as 0 Bytes and the 'Bucket' as `powersystemfaultdetection-donotdelete-pr-e1iugdh15qzbss`. A link 'Manage in IBM Cloud' is provided.

15. Click on associate service.

The screenshot shows the IBM watsonx.ai Studio interface. The browser address bar displays the URL: `au-syd.dai.cloud.ibm.com/projects/907ba3d0-e137-4780-8ae2-f70bc3dfafba/manage/services?context=cpdaas`. The page title is "Service Details - IBM Cloud". The left sidebar shows the "Services & integrations" section selected. The main content area is titled "Services & integrations" and has two tabs: "IBM services" (active) and "Third-party integrations". Below the tabs, there is a text block: "Associate IBM Cloud services with this project to add tools, compute environments, or other capabilities. [Learn more.](#)". A search bar labeled "Find services" is present. A blue button labeled "Associate service" with a plus icon is highlighted with a red box. Below the button, there is a table header with "Name" and "Service type" columns. At the bottom, there is a message: "No services" and "Click [Associate service](#) or ask a project Admin to associate one".

Service Details - IBM Cloud

Power_System_Fault_Detection

au-syd.dai.cloud.ibm.com/projects/907ba3d0-e137-4780-8ae2-f70bc3dfafba/manage/services?context=cpdaas

IBM watsonx.ai Studio

Search in your workspaces

Upgrade

Rameswar Ghosal's Account

Sydney

RG

Projects / Power_System_Fault_Detection

Overview Assets Jobs Manage

Project

- General
- Access control
- Environments
- Resource usage
- Services & integrations**
- Tools
- Pipeline

Services & integrations

IBM services Third-party integrations

Associate IBM Cloud services with this project to add tools, compute environments, or other capabilities. [Learn more.](#)

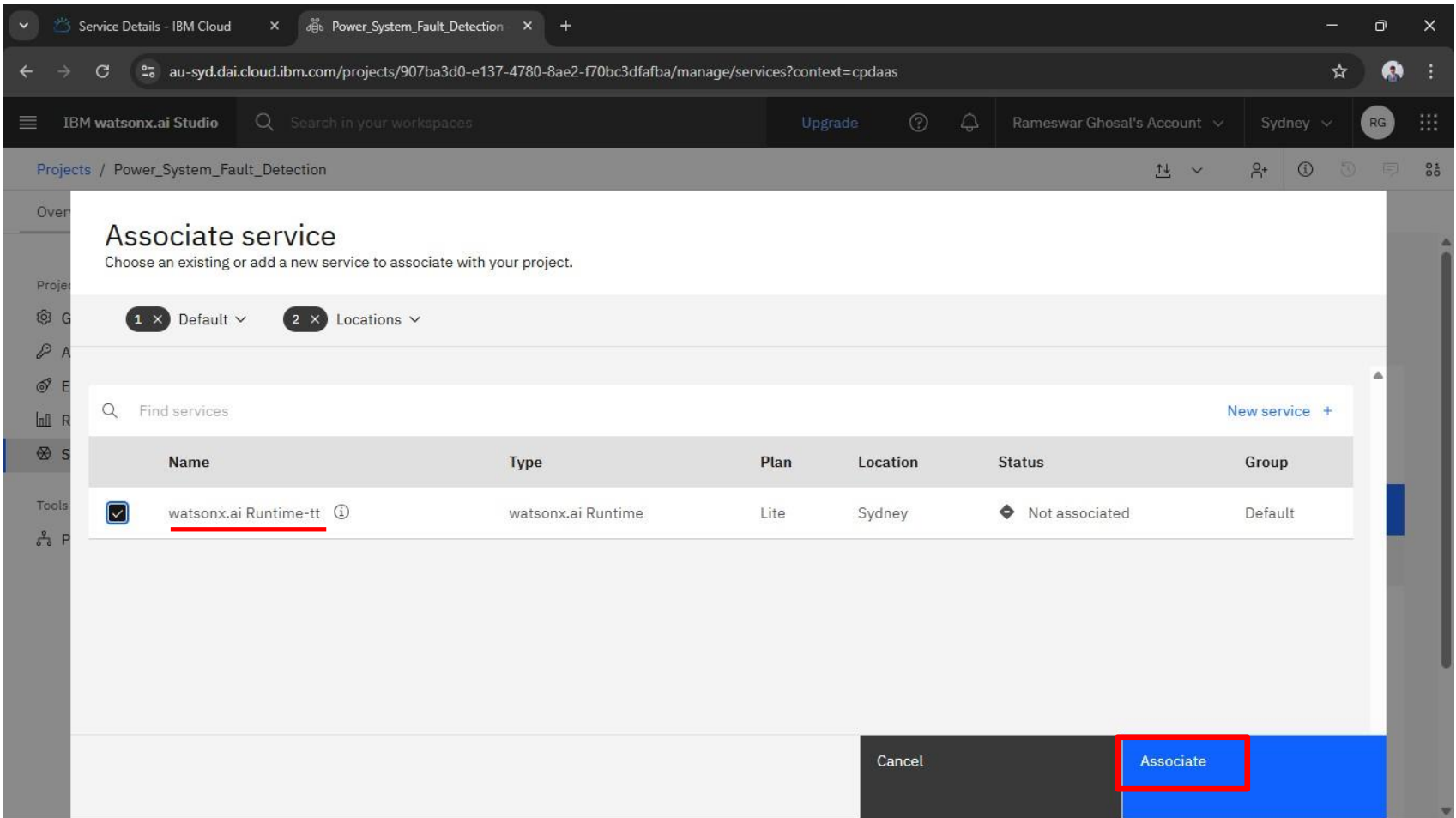
Find services

Associate service +

No services

Click [Associate service](#) or ask a project Admin to associate one

16. Select “watsonx.ai runtime” and click on “Associate”.



The screenshot shows the IBM watsonx.ai Studio interface. A modal dialog titled "Associate service" is open, prompting the user to "Choose an existing or add a new service to associate with your project." The dialog includes filters for "Default" and "Locations". A search bar labeled "Find services" is present, along with a "New service +" link. Below the search bar is a table of available services.

Name	Type	Plan	Location	Status	Group
<input checked="" type="checkbox"/> <u>watsonx.ai Runtime-tt</u> ⓘ	watsonx.ai Runtime	Lite	Sydney	Not associated	Default

At the bottom of the dialog, there are two buttons: "Cancel" and "Associate". The "Associate" button is highlighted with a red rectangle.

17. Go to “Overview” section and click on “Build machine learning models automatically”.

The screenshot shows the IBM watsonx.ai Studio interface. The browser address bar displays the URL: `au-syd.dai.cloud.ibm.com/projects/907ba3d0-e137-4780-8ae2-f70bc3dfafba/overview?context=cpdaas`. The page title is "Service Details - IBM Cloud". The main navigation bar includes "IBM watsonx.ai Studio", a search bar, an "Upgrade" button, and user information for "Rameswar Ghosal's Account". The breadcrumb trail shows "Projects / Power_System_Fault_Detection". The "Overview" tab is selected and highlighted with a red box. Below the tabs, the "Start working" section is visible, featuring four cards: "Add users as collaborators", "Add data to work with", "Work with data and models in Python or R notebooks", and "Build machine learning models automatically". The last card is highlighted with a red box. Below this section, there are three panels: "Assets" (showing a bar chart icon), "Resource usage" (showing a gauge icon and the text "For this month in this project"), and "Your documentation" (showing a document icon and the text "Get started with your documentation").

Service Details - IBM Cloud

Power_System_Fault_Detection

au-syd.dai.cloud.ibm.com/projects/907ba3d0-e137-4780-8ae2-f70bc3dfafba/overview?context=cpdaas

IBM watsonx.ai Studio

Search in your workspaces

Upgrade

Rameswar Ghosal's Account

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RG

Projects / Power_System_Fault_Detection

Overview Assets Jobs Manage

Start working

Recommended

Add users as collaborators

Add data to work with

Work with data and models in Python or R notebooks

Build machine learning models automatically

View all

Collapse

Assets

By all

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

Resource usage

For this month in this project

0 CUH

Your documentation **New!**

Get started with your documentation

You can create and manage documents about work that you do in this project.

Open Documentation editor

18. Give a name to the model and click “Create” button.

Service Details - IBM Cloud x Power_System_Fault_Detection x

au-syd.dai.cloud.ibm.com/projects/907ba3d0-e137-4780-8ae2-f70bc3dfafba/overview?context=cpdaas

IBM watsonx.ai Studio Search in your workspaces Upgrade ? Rameswar Ghosal's Account Sydney RG

Projects / Power_System_Fault_Detection

Build machine learning models automatically

Define the details to create an AutoAI experiment asset and open it in the AutoAI tool.

+ New

Sample

Name

power_system_fault_detection

Description (optional)

Design a machine learning model to detect and classify different types of faults in a power distribution system.

Tags (optional)

Add tags to make assets easier to find.

Start typing to add tags

watsonx.ai Runtime service instance

watsonx.ai Runtime-tt

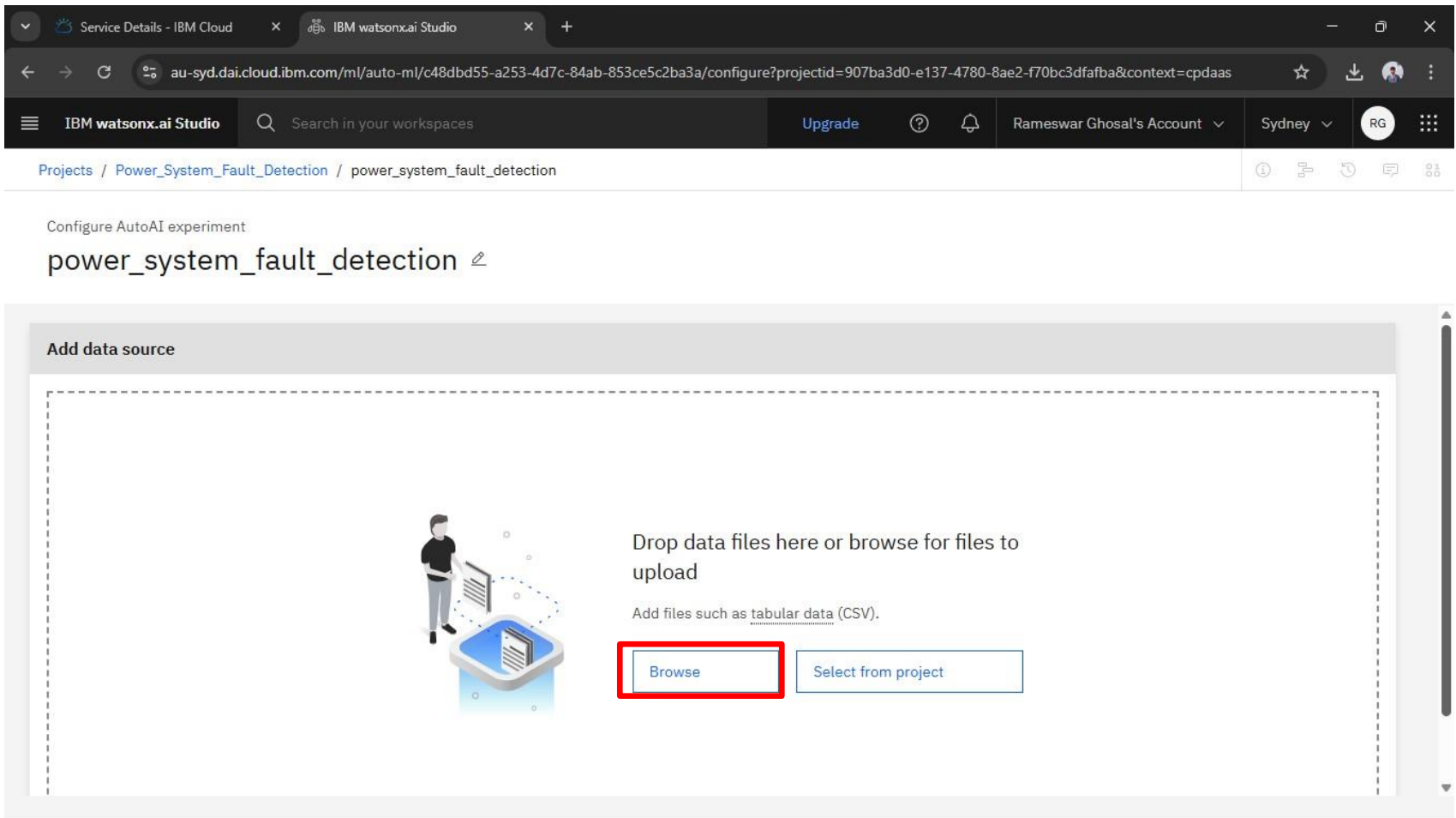
Environment definition

Large: 8 CPU and 32 GB RAM

This environment definition consumes 20 capacity units per hour for training. For details, see [watsonx.ai Runtime plans](#).

Cancel Back **Create**

19. Browse the dataset from local storage.



The screenshot displays the IBM Watsonx.ai Studio web interface. The browser tab is titled 'IBM watsonx.ai Studio' and the address bar shows the URL: `au-syd.dai.cloud.ibm.com/ml/auto-ml/c48dbd55-a253-4d7c-84ab-853ce5c2ba3a/configure?projectid=907ba3d0-e137-4780-8ae2-f70bc3dfafba&context=cpdaas`. The page header includes the 'IBM watsonx.ai Studio' logo, a search bar, an 'Upgrade' button, and user account information for 'Rameswar Ghosal's Account' in the 'Sydney' region. The breadcrumb trail indicates the current location: 'Projects / Power_System_Fault_Detection / power_system_fault_detection'. The main heading is 'Configure AutoAI experiment' followed by the project name 'power_system_fault_detection'. The 'Add data source' section contains a large dashed box with an illustration of a person interacting with a data source. Text inside the box instructs the user to 'Drop data files here or browse for files to upload' and provides an example: 'Add files such as tabular data (CSV)'. Two buttons are present: 'Browse' (highlighted with a red border) and 'Select from project'.

Service Details - IBM Cloud x IBM watsonx.ai Studio x +

au-syd.dai.cloud.ibm.com/ml/auto-ml/c48dbd55-a253-4d7c-84ab-853ce5c2ba3a/configure?projectid=907ba3d0-e137-4780-8ae2-f70bc3dfafba&context=cpdaas

IBM watsonx.ai Studio Search in your workspaces Upgrade ? Rameswar Ghosal's Account Sydney RG

Projects / Power_System_Fault_Detection / power_system_fault_detection

Configure AutoAI experiment

power_system_fault_detection

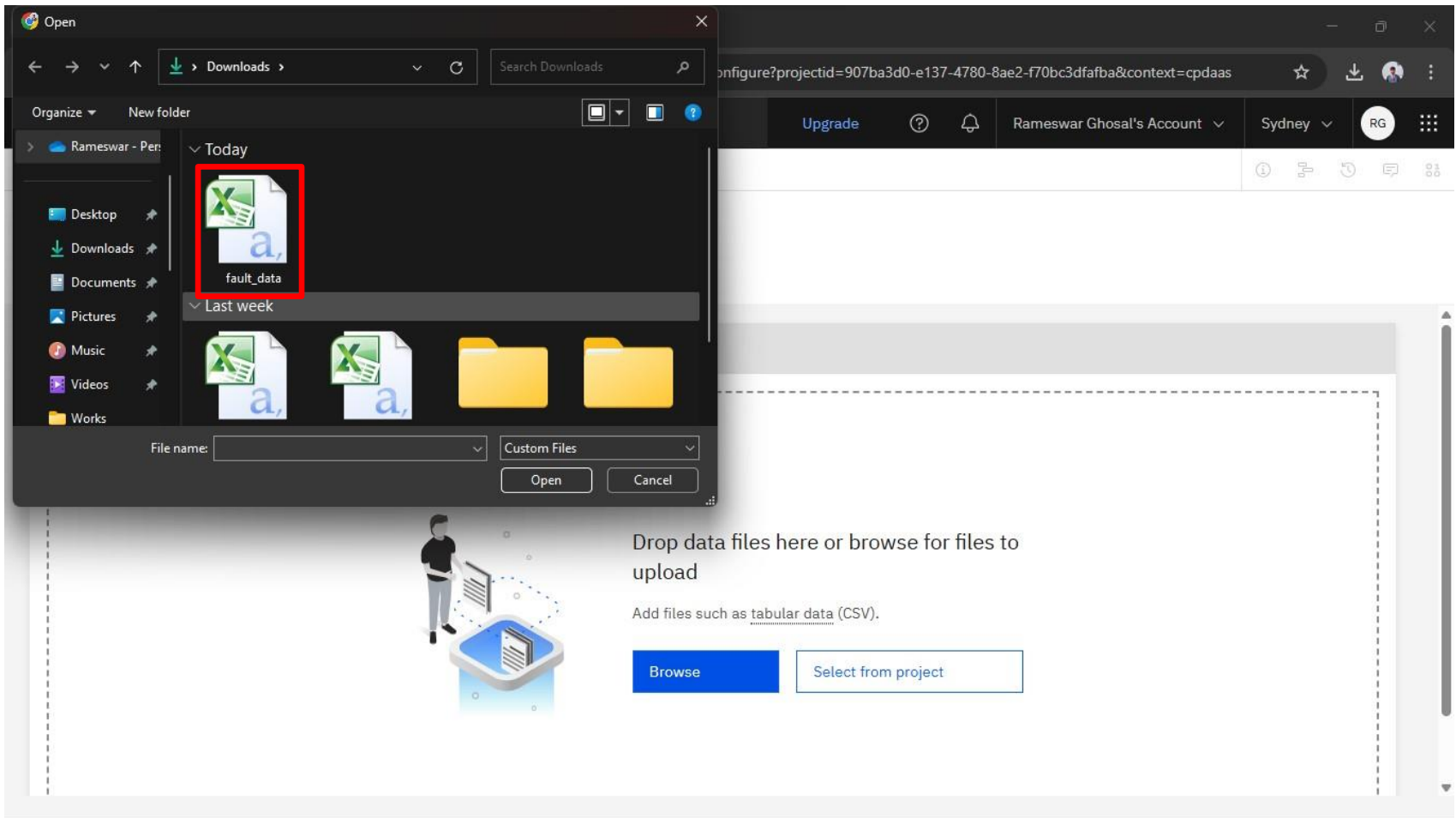
Add data source

Drop data files here or browse for files to upload

Add files such as tabular data (CSV).

Browse Select from project

20. Select the .csv file of datasets and click on “Open” button.



21. Create a user API key and click 'reload' button.

The screenshot shows the IBM Watson AI Studio interface. The browser address bar displays the URL: `au-syd.dai.cloud.ibm.com/ml/auto-ml/c48dbd55-a253-4d7c-84ab-853ce5c2ba3a/configure?projectid=907ba3d0-e137-4780-8ae2-f70bc3dfafba&context=cpdaas`. The page title is "Configure AutoAI experiment" and the experiment name is "power_system_fault_detection". The interface is divided into two main sections: "Add data source" and "Configure details".

Add data source: This section contains a dashed box with the text "Add files such as tabular data (CSV)." and two buttons: "Browse" and "Select from project". Below this, a file named "fault_data.csv" is listed with a size of 47.62 KB and 13 columns.

Configure details: This section contains a yellow warning box with a red border. The warning message reads: "No user API key. To create an AutoAI machine learning experiment you must first [create a User API key](#). Then, click the [reload button](#)." Below the warning box, there is a section titled "Create a time series analysis?" with a subtext: "Enable this option to predict future activity over a specified date/time range. Data must be structured and sequential. [Learn more](#)". To the right of this text are two buttons: "Yes" and "No".

22. If you want to do a time series analysis then click on 'yes' or else click 'no'.

Service Details - IBM Cloud

power_system_fault_detection

au-syd.dai.cloud.ibm.com/ml/auto-ml/c48dbd55-a253-4d7c-84ab-853ce5c2ba3a/configure?projectid=907ba3d0-e137-4780-8ae2-f70bc3dfafba&context=cpdaas

IBM watsonx.ai Studio

Search in your workspaces

Upgrade

Rameswar Ghosal's Account

Sydney

RG

Projects / Power_System_Fault_Detection / power_system_fault_detection

Configure AutoAI experiment

power_system_fault_detection

Autosaved: 11:51:13 AM

Add data source

Add files such as tabular data (CSV).

Browse

Select from project

fault_data.csv

Size: 47.62 KB

Columns: 13

Configure details

Create a time series analysis?

Enable this option to predict future activity over a specified date/time range. Data must be structured and sequential. [Learn more](#)

Yes

No

23. Select the output column which you want to predict.

The screenshot shows the IBM Watson AI Studio interface. The browser address bar displays the URL: `au-syd.dai.cloud.ibm.com/ml/auto-ml/c48dbd55-a253-4d7c-84ab-853ce5c2ba3a/configure?projectid=907ba3d0-e137-4780-8ae2-f70bc3dfafba&context=cpdaas`. The page title is "Configure AutoAI experiment" and the experiment name is "power_system_fault_detection". The status "Autosaved: 11:51:13 AM" is visible in the top right.

The interface is divided into two main sections:

- Add data source:** This section allows adding files such as tabular data (CSV). It includes a "Browse" button and a "Select from project" button. Below these, a file named "fault_data.csv" is listed with a size of 47.62 KB and 13 columns.
- Configure details:** This section contains two configuration options:
 - Create a time series analysis?** This option is used to predict future activity over a specified date/time range. Data must be structured and sequential. It includes a "Learn more" link and "Yes" and "No" buttons.
 - What do you want to predict?** This section is highlighted with a red box. It contains a "Prediction column" dropdown menu with the text "Select prediction column" and a downward arrow.

24. Click on 'Run experiment'.

The screenshot shows the IBM Watsonx.ai Studio interface for configuring an AutoAI experiment. The browser address bar shows the URL: `dataplatfrom.cloud.ibm.com/ml/auto-ml/633fa036-9f20-4f6c-b062-7733e344189a/configure?projectid=408ab755-2b32-4c5f-be89-4c1ec4953147&context=cpdaas`. The page title is "Configure AutoAI experiment" and the experiment name is "power_system_fault_detection".

On the left, under "Add files such as tabular data (CSV).", there are two buttons: "Browse" and "Select from project". Below these, a file named "fault_data.csv" is listed with a size of 33.66 KB and 11 columns.

On the right, the "What do you want to predict?" section shows the "Prediction column" set to "Fault Type". Below this, the "Prediction type" is "Multiclass Classification" and it is "OPTIMIZED FOR Accuracy & run time".

At the bottom right, the "Run experiment" button is highlighted with a red box. To its right is an "Activate Windows" watermark.

Other visible details include the "Experiment settings" tab, the "CUH remaining: 20 CUH" indicator, and the "Autosaved: 4:36:11 PM" timestamp.

Projects / Power_System_Fault_Detection_final / power_system_fault_detection

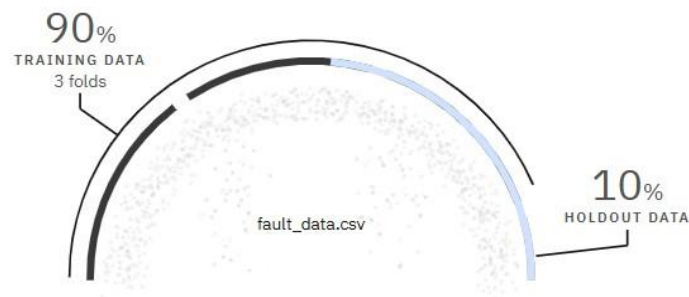
Experiment summary

Pipeline comparison

★ Rank by: Accuracy (Optimized) | Cross validation score

Relationship map

Prediction column: Fault Type



Progress map

Swap view



Reading training data

FAULT_DATA.CSV

Reading training data

Time elapsed: 96 seconds

View log

Save code

Go to Settings to activate Windows.

Pipeline leaderboard

Projects / Power_System_Fault_Detection_final / power_system_fault_detection

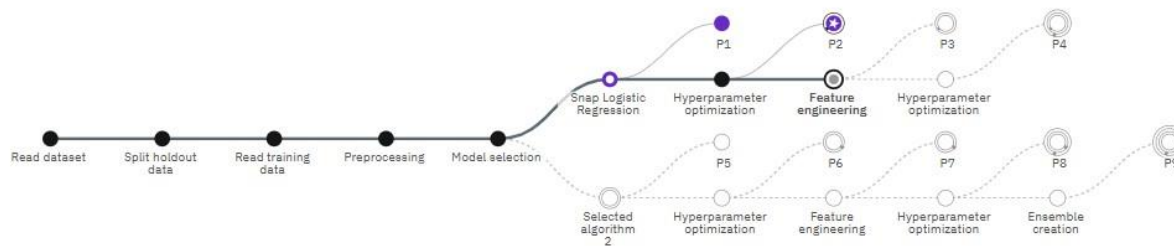
★ Rank by: Accuracy (Optimized) | Cross validation score

Experiment summary

Pipeline comparison

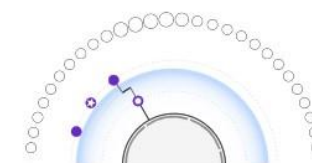
Progress map

Prediction column: Fault Type



Relationship map

Swap view



Feature engineering

SNAP LOGISTIC REGRESSION

Started feature engineering for pipeline P3

Time elapsed: 2 minutes

View log

Save code

Pipeline leaderboard

Activate Windows
Go to Settings to activate Windows.

Rank	↑	Name	Algorithm	Accuracy (Optimized)	Enhancements	Build time
				Cross Validation		

The experiment is completed.

Power_System_Fault_Detection_ x Service Details - IBM Cloud x IBM watsonx.ai Studio x +

datapatform.cloud.ibm.com/ml/auto-ml/633fa036-9f20-4f6c-b062-7733e344189a/train?projectId=408ab755-2b32-4c5f-be89-4c1ec4953147&context=cpdaas

IBM watsonx.ai Studio Search in your workspaces Upgrade ? Rameswar Ghosal's Account Dallas RG

Projects / Power_System_Fault_Detection_final / power_system_fault_detection

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

Progress map ⓘ
Prediction column: Fault Type

Read dataset Split holdout data Read training data Preprocessing Model selection

Snap Logistic Regression P1 Hyperparameter optimization P2 Feature engineering P3 Hyperparameter optimization P4

Random Forest Classifier P5 Hyperparameter optimization P6 Feature engineering P7 Hyperparameter optimization P8 Ensemble creation P9

Relationship map
Swap view

Experiment completed ✓
8 PIPELINES GENERATED

8 pipelines generated from algorithms. See pipeline leaderboard below for more detail.

Time elapsed: 3 minutes

View log Save code

Pipeline leaderboard ▾

Rank ↑	Name	Algorithm	Specialization	Accuracy (Optimized) Cross Validation	Enhancements	Build time
--------	------	-----------	----------------	--	--------------	------------

Activate Windows
Go to Settings to activate Windows.

25. Click on 'Save as' button.

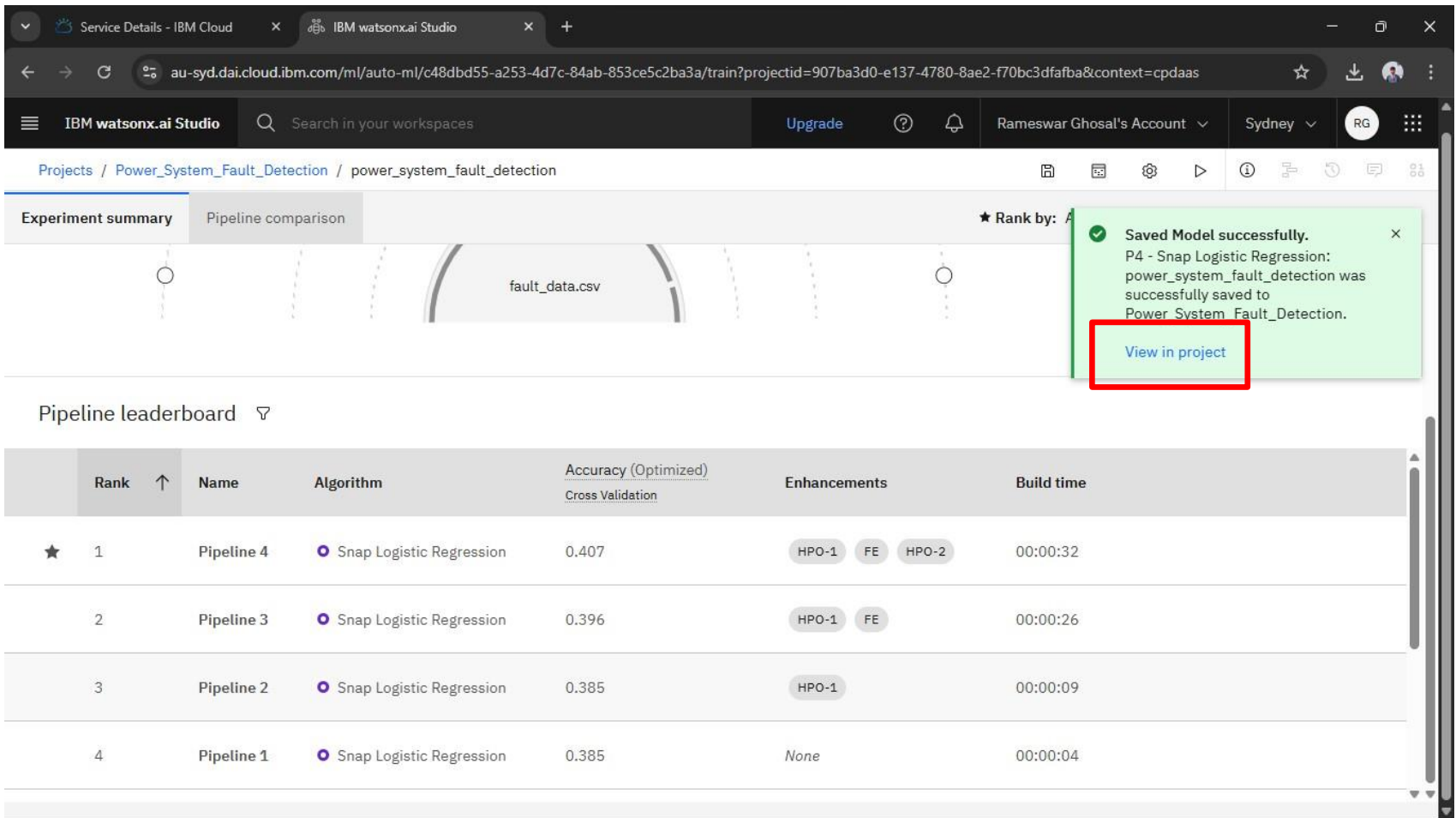
The screenshot shows the IBM watsonx.ai Studio interface. The browser address bar displays the URL: `au-syd.dai.cloud.ibm.com/ml/auto-ml/c48dbd55-a253-4d7c-84ab-853ce5c2ba3a/train?projectid=907ba3d0-e137-4780-8ae2-f70bc3dfafba&context=cpdaas`. The page title is "Service Details - IBM Cloud". The main header includes the IBM watsonx.ai Studio logo, a search bar, and user information for Rameswar Ghosal's Account.

The breadcrumb navigation shows: `Projects / Power_System_Fault_Detection / power_system_fault_detection`. The tabs at the top are "Experiment summary" and "Pipeline comparison". The "Rank by" dropdown is set to "Accuracy (Optimized)".

The "Pipeline leaderboard" section displays a table of pipelines. The first pipeline, "Pipeline 4", is highlighted, and its "Save as" button is enclosed in a red box. The table columns are Rank, Name, Algorithm, Accuracy (Optimized) Cross Validation, Enhancements, and Build time.

Rank	Name	Algorithm	Accuracy (Optimized) Cross Validation	Enhancements	Build time
★ 1	Pipeline 4	Snap Logistic Regression	0.407	HPO-1 FE HPO-2	00:00:32
2	Pipeline 3	Snap Logistic Regression	0.396	HPO-1 FE	00:00:26
3	Pipeline 2	Snap Logistic Regression	0.385	HPO-1	00:00:09
4	Pipeline 1	Snap Logistic Regression	0.385	None	00:00:04

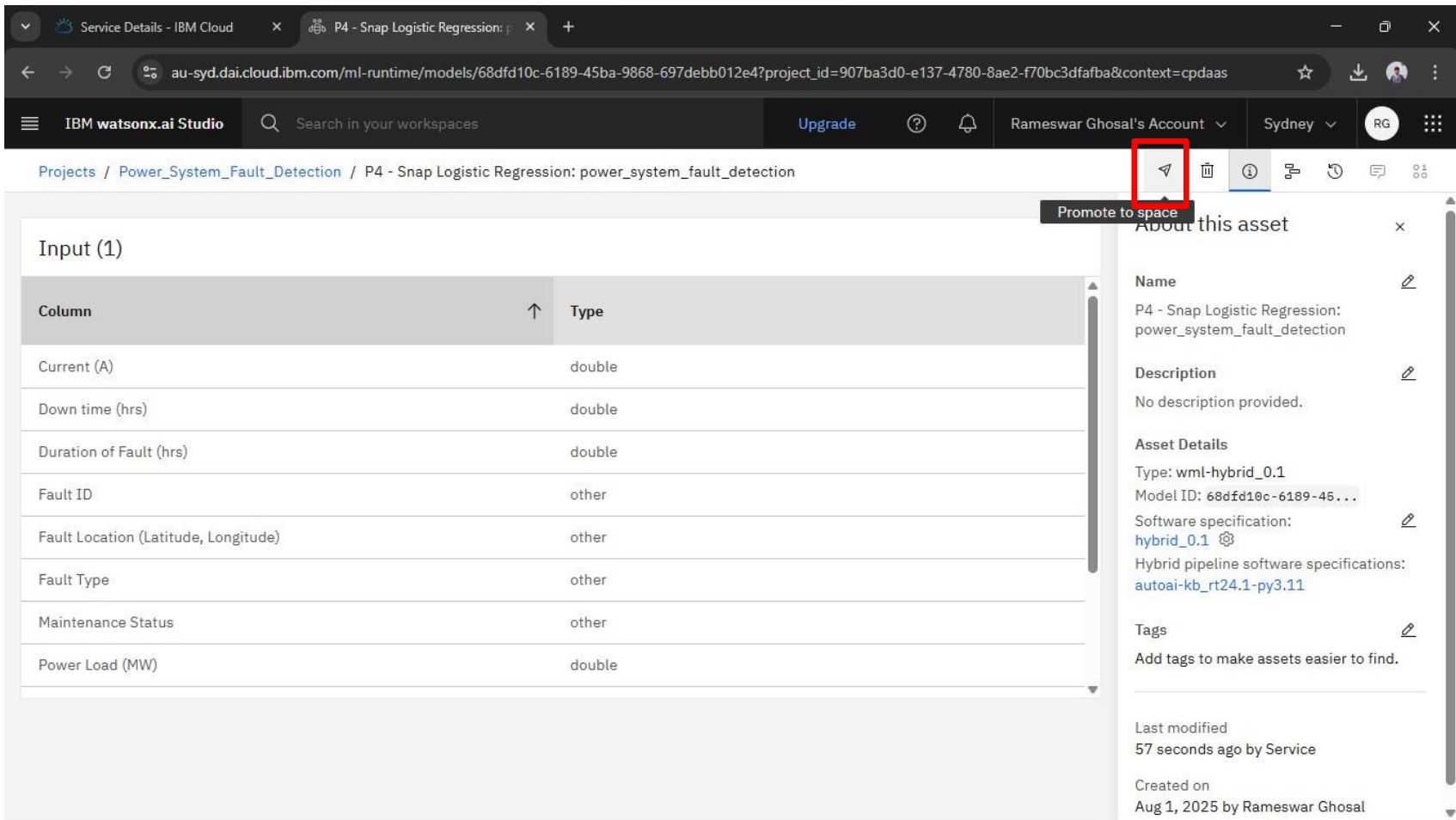
26. Click 'View in project'.



The screenshot displays the IBM watsonx.ai Studio interface. The top navigation bar includes the IBM logo, the text 'Service Details - IBM Cloud', and the 'IBM watsonx.ai Studio' tab. The address bar shows the URL: `au-syd.dai.cloud.ibm.com/ml/auto-ml/c48dbd55-a253-4d7c-84ab-853ce5c2ba3a/train?projectid=907ba3d0-e137-4780-8ae2-f70bc3dfafba&context=cpdaas`. The main header area contains the text 'IBM watsonx.ai Studio', a search bar, an 'Upgrade' button, and user information for 'Rameswar Ghosal's Account' and 'Sydney'. The breadcrumb trail indicates the current location: 'Projects / Power_System_Fault_Detection / power_system_fault_detection'. Below this, there are tabs for 'Experiment summary' and 'Pipeline comparison'. A visualization of a pipeline is shown, with a file named 'fault_data.csv' visible. A notification box on the right states: 'Saved Model successfully. P4 - Snap Logistic Regression: power_system_fault_detection was successfully saved to Power System Fault_Detection.' A red rectangle highlights the 'View in project' button within this notification. Below the notification, the 'Pipeline leaderboard' is displayed, showing a table of pipelines ranked by accuracy.

	Rank	Name	Algorithm	Accuracy (Optimized) Cross Validation	Enhancements	Build time
★	1	Pipeline 4	Snap Logistic Regression	0.407	HPO-1 FE HPO-2	00:00:32
	2	Pipeline 3	Snap Logistic Regression	0.396	HPO-1 FE	00:00:26
	3	Pipeline 2	Snap Logistic Regression	0.385	HPO-1	00:00:09
	4	Pipeline 1	Snap Logistic Regression	0.385	None	00:00:04

27. Click on 'promote to space'.



The screenshot shows the IBM watsonx.ai Studio interface. The main content area displays a table titled "Input (1)" with the following data:

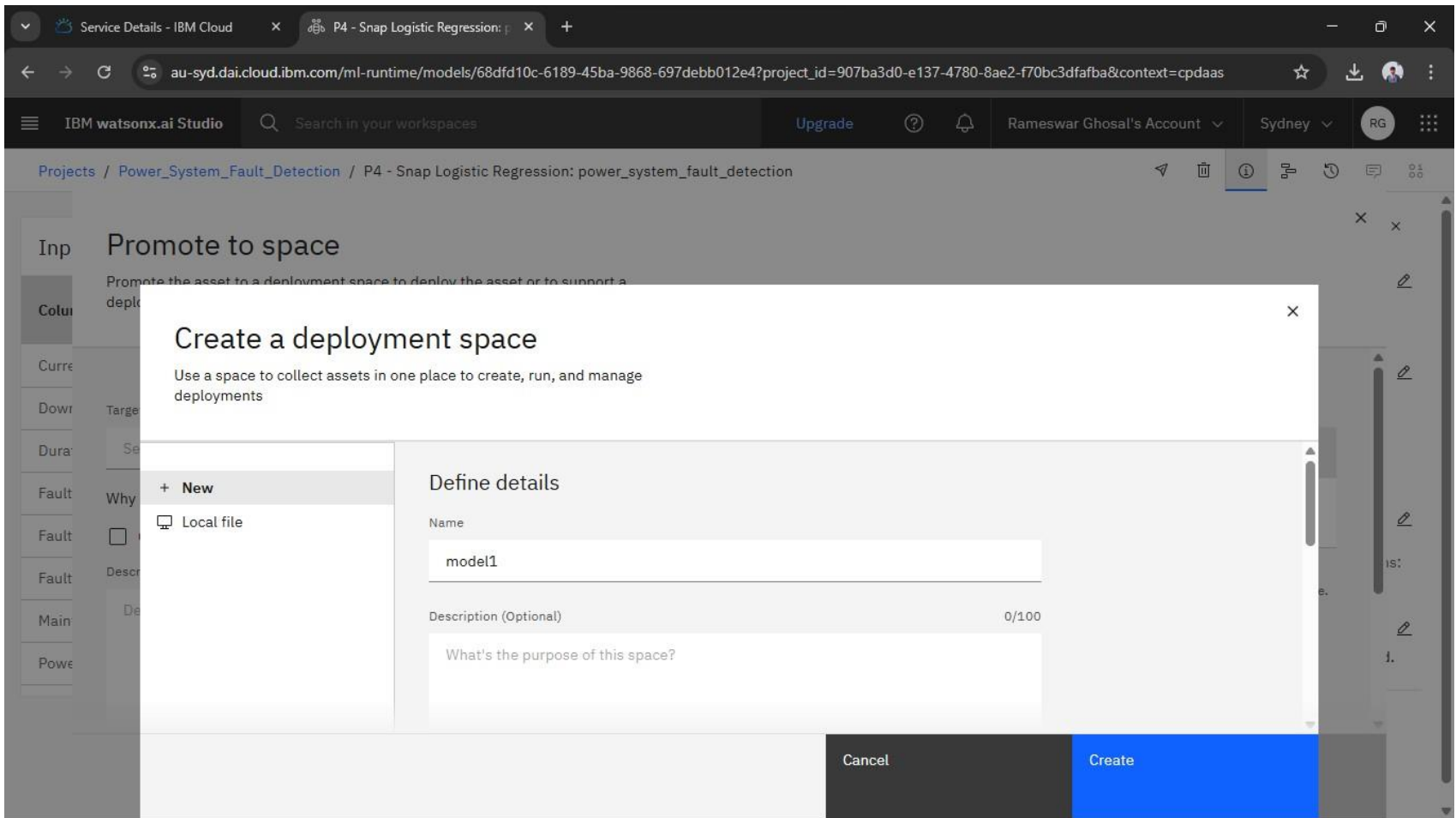
Column	Type
Current (A)	double
Down time (hrs)	double
Duration of Fault (hrs)	double
Fault ID	other
Fault Location (Latitude, Longitude)	other
Fault Type	other
Maintenance Status	other
Power Load (MW)	double

On the right side, there is a panel titled "About this asset" with the following details:

- Name:** P4 - Snap Logistic Regression: power_system_fault_detection
- Description:** No description provided.
- Asset Details:**
 - Type: wml-hybrid_0.1
 - Model ID: 68dfd10c-6189-45...
 - Software specification: hybrid_0.1
 - Hybrid pipeline software specifications: autoai-kb_rt24.1-py3.11
- Tags:** Add tags to make assets easier to find.
- Last modified:** 57 seconds ago by Service
- Created on:** Aug 1, 2025 by Rameswar Ghosal

A red box highlights the "Promote to space" button in the top right corner of the model card.

28. Give a name to the deployment space and scroll down.

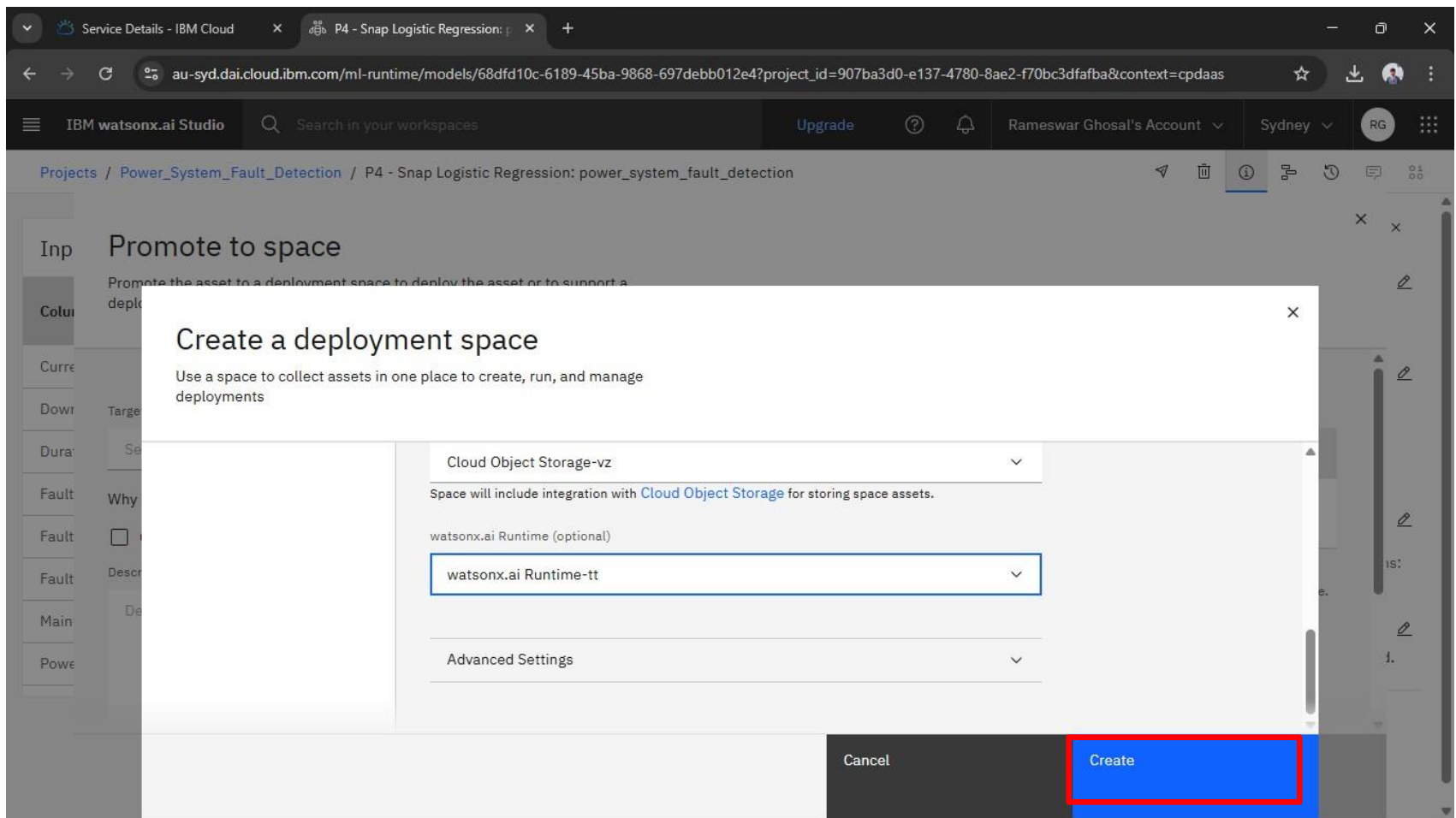


The screenshot shows the IBM Watson AI Studio interface. A modal dialog titled "Create a deployment space" is open, prompting the user to "Use a space to collect assets in one place to create, run, and manage deployments". The dialog has a "Define details" section with the following fields:

- Name:** A text input field containing "model1".
- Description (Optional):** A text area with a character count of "0/100" and placeholder text "What's the purpose of this space?".

At the bottom of the dialog are two buttons: "Cancel" and "Create". The "Create" button is highlighted in blue.

29. Select watsonx.ai runtime and click on 'create' button.



Service Details - IBM Cloud

P4 - Snap Logistic Regression: |

← → ↻

au-syd.dai.cloud.ibm.com/ml-runtime/models/68dfd10c-6189-45ba-9868-697debb012e4?project_id=907ba3d0-e137-4780-8ae2-f70bc3dfafba&context=cpdaas

☆ ⬇️ 👤 ⋮

IBM watsonx.ai Studio

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Sydney ▾

RG ⋮

Projects / Power_System_Fault_Detection / P4 - Snap Logistic Regression: power_system_fault_detection

🔍 🗑️ ⓘ ⚙️ ⌛ 💬 ⚙️

Inp

Column

Current

Down

Dura

Fault

Fault

Fault

Main

Power

Promote to space

Promote the asset to a deployment space to deploy the asset or to support a deplc

Create a deployment space

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

Target

Se

Why

Descr

De

Advanced Settings

⌵

The space is being prepared...

The space "model1" is being created.

🔄 Step 1 of 1. Creating deployment space.

Cancel

🔄 Creating...

30. Click 'promote'.

Service Details - IBM Cloud x P4 - Snap Logistic Regression: x +

au-syd.dai.cloud.ibm.com/ml-runtime/models/68dfd10c-6189-45ba-9868-697debb012e4?project_id=907ba3d0-e137-4780-8ae2-f70bc3dfafba&context=cpdaas

IBM watsonx.ai Studio Search in your workspaces Upgrade ? Rameswar Ghosal's Account Sydney RG

Projects / Power_System_Fault_Detection / P4 - Snap Logistic Regression: power_system_fault_detection

Promote to space

Promote the asset to a deployment space to deploy the asset or to support a deployment.

Target deployment space

model1 x v

Why don't I see all of my spaces? ⓘ

☐ Go to the model in the space after promoting it

Description (Optional)

Description of assets

Selected assets (1)

Name	Format	Version	Status
P4 - Snap Logistic Regression: pow...	Model	C... v	Queued

Promoting an asset promotes dependent assets as well. For example, promoting a model also promotes the associated software specification and package extensions. You will see all promoted assets in the target space.

Cancel Promote

31. Click on 'deployment space'.

The screenshot shows the IBM watsonx.ai Studio interface. A modal dialog titled "Promote to space" is open, displaying a table of selected assets. A green success notification is overlaid on the right side of the dialog.

Promote to space
Promote the asset to a deployment space to deploy the asset or to support a deployment.

✓ Promotion completed.

Selected assets (1)

Name	Format	Version	Status
P4 - Snap Logistic Regression: power_system...	Model	Current	Promoted ✓

Promoting an asset promotes dependent assets as well. For example, promoting a model also promotes the associated software specification and package extensions. You will see all promoted assets in the target space.

Success
Successfully promoted **P4 - Snap Logistic Regression: power_system_fault_detection** to the deployment space. Go to the [deployment space](#) to prepare the assets for deployment.
Timestamp 12:10:57 PM

Close

32. Click on the model name.

The screenshot shows the IBM watsonx.ai Studio interface. The browser address bar displays the URL: `au-syd.dai.cloud.ibm.com/ml-runtime/spaces/0be49717-2c2d-4e15-8203-e825e0a432d2/assets?context=cpdaas`. The page title is "model1". The "Assets" tab is selected, showing a list of assets. A red box highlights the model name "P4 - Snap Logistic Regression: power_system_fault_detection Machine learning model from AutoAI".

Deployment spaces /

model1

Overview Assets Deployments Jobs Manage

Find assets Import assets New asset +

1 asset

All assets

Name	Last modified	
P4 - Snap Logistic Regression: power_system_fault_detection Machine learning model from AutoAI	1 minute ago Service	

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

33. Click on 'New deployment'.

The screenshot shows the IBM watsonx.ai Studio interface. The browser address bar displays the URL: `au-syd.dai.cloud.ibm.com/ml-runtime/models/f2f33033-cd9c-462a-bdd4-a3aedc67158c?space_id=0be49717-2c2d-4e15-8203-e825e0a432d2&context=cpdaas`. The page title is "Deployment spaces / model1 / P4 - Snap Logistic Regression: power_system_fault_detection". The main content area has a "Deployments" tab selected, showing a table with columns: Name, Type, Status, Tags, and Last modified. The table is empty, and a message states: "This asset doesn't have any deployments yet. Use the New Deployment button to create a deployment for this asset." A blue button labeled "New deployment" is highlighted with a red rectangle. On the right, a sidebar titled "About this asset" provides details for the asset "P4 - Snap Logistic Regression: power_system_fault_detection", including its type (wml-hybrid_0.1), model ID, and software specifications.

Service Details - IBM Cloud x P4 - Snap Logistic Regression: x +

au-syd.dai.cloud.ibm.com/ml-runtime/models/f2f33033-cd9c-462a-bdd4-a3aedc67158c?space_id=0be49717-2c2d-4e15-8203-e825e0a432d2&context=cpdaas

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Deployment spaces / model1 / P4 - Snap Logistic Regression: power_system_fault_detection

Deployments Model details

Search

New deployment

Name	Type	Status	Tags	Last modified
------	------	--------	------	---------------

This asset doesn't have any deployments yet
Use the New Deployment button to create a deployment for this asset.

Items per page: 20 0-0 of 0 items 1 of 1 pages

About this asset

Name
P4 - Snap Logistic Regression: power_system_fault_detection

Description
No description provided.

Asset Details
Type: wml-hybrid_0.1
Model ID: f2f33033-cd9c-46...
Software specification: hybrid_0.1
Hybrid pipeline software specifications: autoai-kb_rt24.1-py3.11

Tags
Add tags to make assets easier to find.

Source asset details

Last modified
2 minutes ago by Service

34. Click on 'create' button.

The screenshot shows the IBM Watson AI Studio interface. A modal dialog titled "Create a deployment" is open. The dialog has a close button (X) in the top right corner. The main content area is titled "Define details". Under "Associated asset", it shows "P4 - Snap Logistic Regression: power_system_fault_detection". The "Deployment type" section has two options: "Online" (selected with a checkmark) and "Batch". The "Name" field contains "power_system_fault_detection". At the bottom right, there are two buttons: "Cancel" and "Create". The "Create" button is highlighted with a red border.

Service Details - IBM Cloud

P4 - Snap Logistic Regression: power_system_fault_detection

au-syd.dai.cloud.ibm.com/ml-runtime/models/f2f33033-cd9c-462a-bdd4-a3aedc67158c?space_id=0be49717-2c2d-4e15-8203-e825e0a432d2&context=cpdaas

IBM watsonx.ai Studio

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RG

Deployment spaces / model1 / P4 - Snap Logistic Regression: power_system_fault_detection

Create a deployment

Define details

Associated asset
P4 - Snap Logistic Regression: power_system_fault_detection

Deployment type

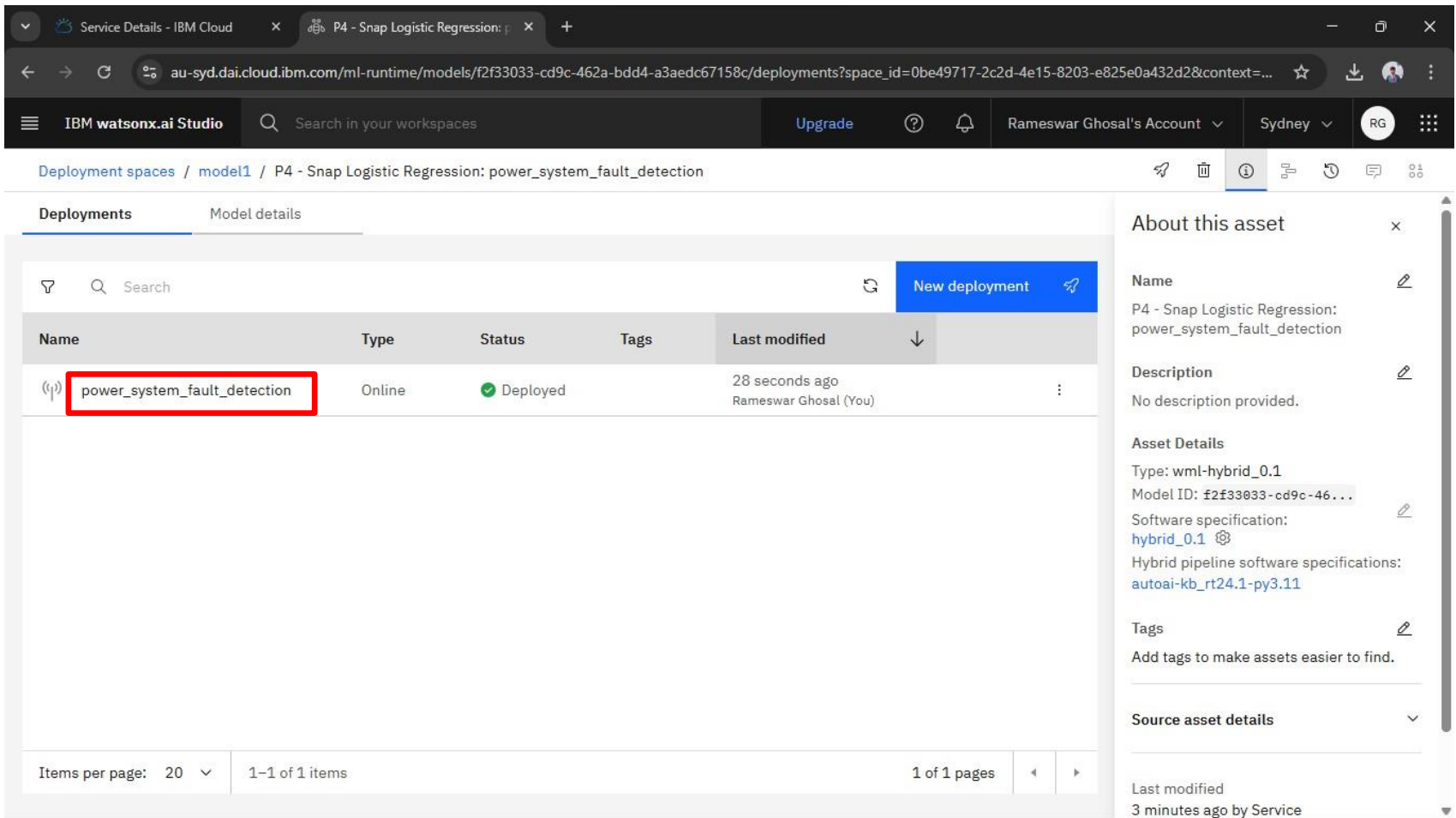
Online ☒
Run the model on data in real-time, as data is received by a web service.

Batch
Run the model against data as a batch process.



Name
power_system_fault_detection

Cancel Create

35. Click on the deployment to execute the model.



The screenshot shows the IBM Watson AI Studio interface. The browser address bar displays the URL: `au-syd.dai.cloud.ibm.com/ml-runtime/models/f2f33033-cd9c-462a-bdd4-a3aedc67158c/deployments?space_id=0be49717-2c2d-4e15-8203-e825e0a432d2&context=...`. The page title is "Deployment spaces / model1 / P4 - Snap Logistic Regression: power_system_fault_detection". The main content area is titled "Deployments" and contains a table with the following data:

Name	Type	Status	Tags	Last modified
 power_system_fault_detection	Online	 Deployed		28 seconds ago Rameswar Ghosal (You)

The "power_system_fault_detection" deployment is highlighted with a red box. To the right of the table is a sidebar titled "About this asset" with the following details:

- Name:** P4 - Snap Logistic Regression: power_system_fault_detection
- Description:** No description provided.
- Asset Details:**
 - Type: wml-hybrid_0.1
 - Model ID: f2f33033-cd9c-46...
 - Software specification: hybrid_0.1
 - Hybrid pipeline software specifications: autoai-kb_rt24.1-py3.11
- Tags:** Add tags to make assets easier to find.
- Source asset details:**
- Last modified:** 3 minutes ago by Service

Result 1

Service Details - IBM Cloud x model_deployment — model_d x

au-syd.dai.cloud.ibm.com/ml-runtime/deployments/34fedd30-d22c-40cc-954a-66faa32a69bc/test?space_id=e00dfa44-4ccc-4c9c-9f03-0b4eda701609&context=cpdaas&flus... ☆


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Deployment spaces / model_deployment1 / P8 - Random Forest Classifier: power_system_fault_detection1 /

Prediction results

Prediction type
Multiclass classification

Prediction percentage



1 record

Display format for prediction results
☒ Table view ☐ JSON view ☐ Show input data ⓘ

	Prediction	Confidence
1	Line Breakage	39%
2		
3		
4		
5		
6		
7		
8		
9		

Line

Activate Windows
Go to Settings to activate Windows.

Download JSON file

Result 2

Service Details - IBM Cloud x model_deployment — model_d x

au-syd.dai.cloud.ibm.com/ml-runtime/deployments/34fedd30-d22c-40cc-954a-66faa32a69bc/test?space_id=e00dfa44-4ccc-4c9c-9f03-0b4eda701609&context=cpdaas&flus... ☆


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Deployment spaces / model_deployment1 / P8 - Random Forest Classifier: power_system_fault_detection1 /

Prediction results

Prediction type
Multiclass classification

Prediction percentage



1 record

Display format for prediction results
☒ Table view ☐ JSON view ☐ Show input data ⓘ

	Prediction	Confidence
1	Transformer Failure	39%
2		
3		
4		
5		
6		
7		
8		
9		

Transformer

Activate Windows
Go to Settings to activate Windows.

Result 3

Service Details - IBM Cloud x model_deployment — model_d x

au-syd.dai.cloud.ibm.com/ml-runtime/deployments/34fedd30-d22c-40cc-954a-66faa32a69bc/test?space_id=e00dfa44-4ccc-4c9c-9f03-0b4eda701609&context=cpdaas&flus... ☆


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Deployment spaces / model_deployment1 / P8 - Random Forest Classifier: power_system_fault_detection1 /

Prediction results

Prediction type
Multiclass classification

Prediction percentage



1 record

■ Overheating

Display format for prediction results
☒ Table view ☐ JSON view ☐ Show input data ⓘ

	Prediction	Confidence
1	Overheating	38%
2		
3		
4		
5		
6		
7		
8		
9		

Close X

Activate Windows
Go to Settings to activate Windows.
Download JSON file