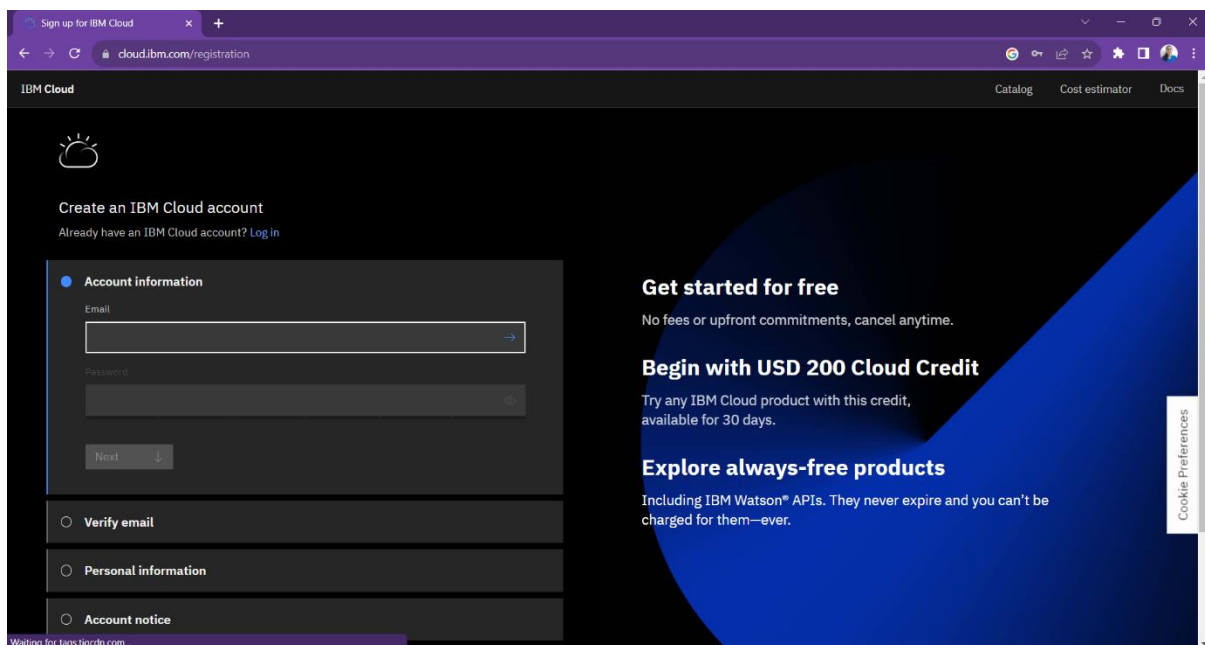


# Project 7: Data Warehousing with IBM Cloud Db2 Warehouse

## Phase 3: Development part 1

To create a comprehensive and effective system for analysing security factors at the port, tracking boat entries and exits, and distinguishing licensed from unlicensed boats. This approach focuses on data quality, real-time monitoring, collaboration, and continuous improvement to strengthen port security. Using IBM Cloud Db2.

### Step 1: Creating Ibm Cloud Account



The screenshot shows the IBM Cloud registration page in a web browser. The browser's address bar displays 'cloud.ibm.com/registration'. The page has a dark theme with a blue and black color scheme. On the left, there is a registration form titled 'Create an IBM Cloud account' with a link 'Already have an IBM Cloud account? Log in'. The form has a progress indicator with four steps: 'Account information' (selected), 'Verify email', 'Personal information', and 'Account notice'. The 'Account information' section contains fields for 'Email' and 'Password', each with a 'Next' button. To the right of the form, there are three promotional sections: 'Get started for free' (No fees or upfront commitments, cancel anytime.), 'Begin with USD 200 Cloud Credit' (Try any IBM Cloud product with this credit, available for 30 days.), and 'Explore always-free products' (Including IBM Watson® APIs. They never expire and you can't be charged for them—ever.). A 'Cookie Preferences' button is visible on the right side of the page. The browser's status bar at the bottom shows 'Waiting for tags.tiqcdn.com...'.

Sign up for IBM Cloud

cloud.ibm.com/registration

IBM Cloud

Catalog Cost estimator Docs

Create an IBM Cloud account

Already have an IBM Cloud account? [Log in](#)

**Account information**

Email

Password

Next

☐ Verify email

☐ Personal information

☐ Account notice

**Get started for free**

No fees or upfront commitments, cancel anytime.

**Begin with USD 200 Cloud Credit**

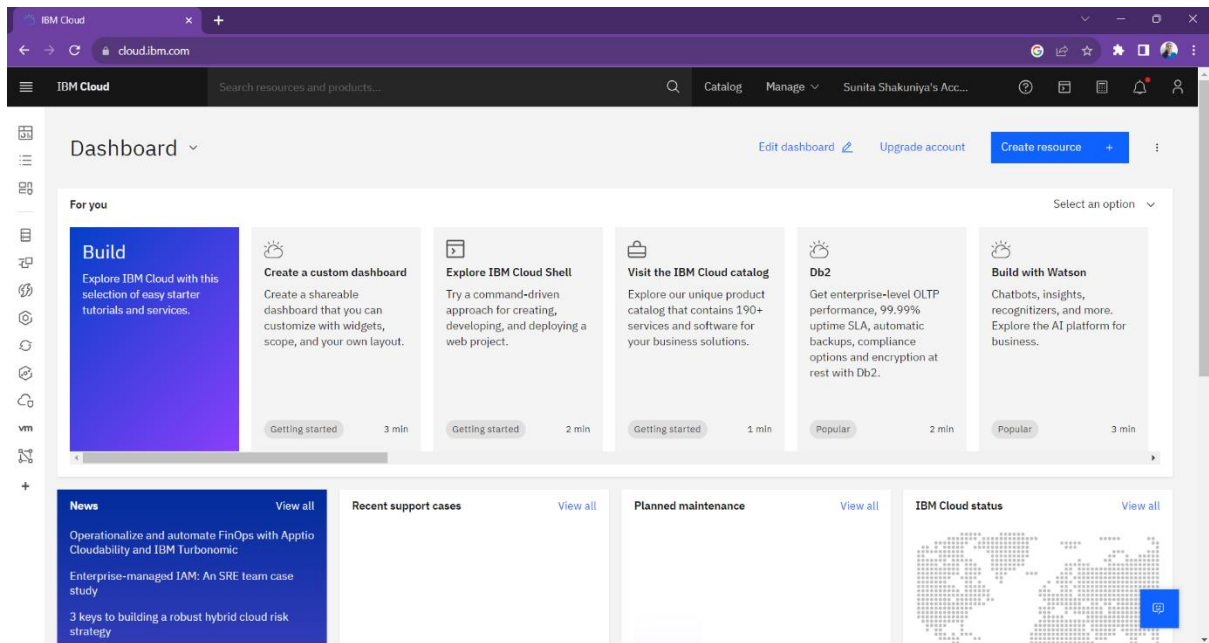
Try any IBM Cloud product with this credit, available for 30 days.

**Explore always-free products**

Including IBM Watson® APIs. They never expire and you can't be charged for them—ever.

Cookie Preferences

Waiting for tags.tiqcdn.com...



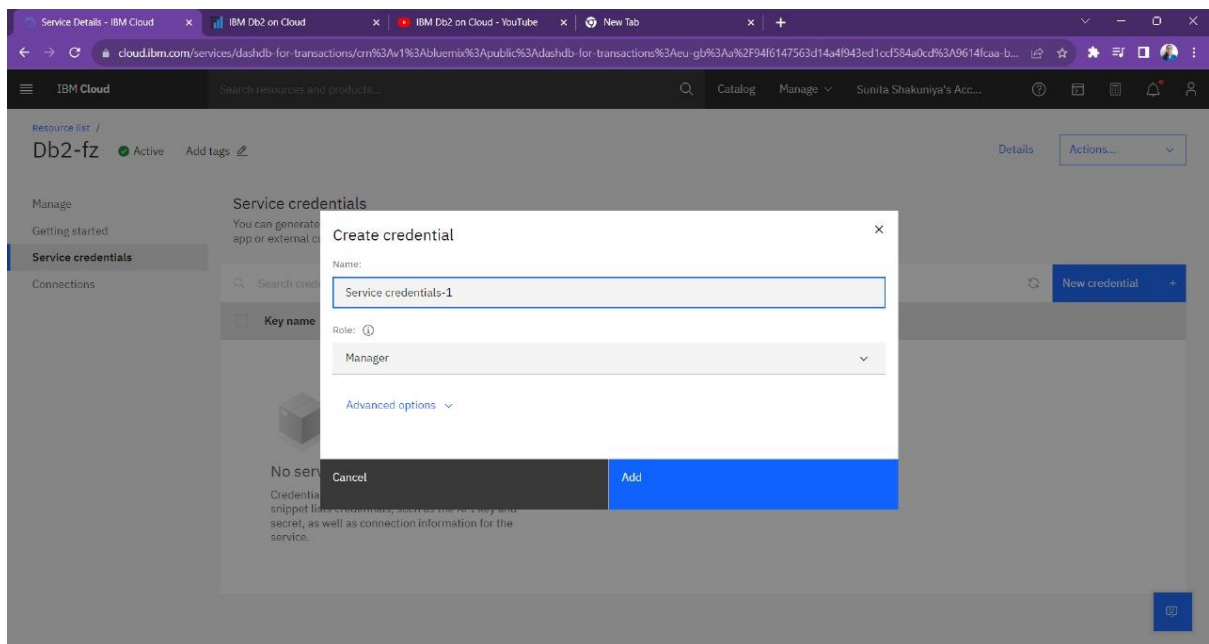
## Set up the Data Warehouse Service:

In the homepage of the IBM account, click on the manage.

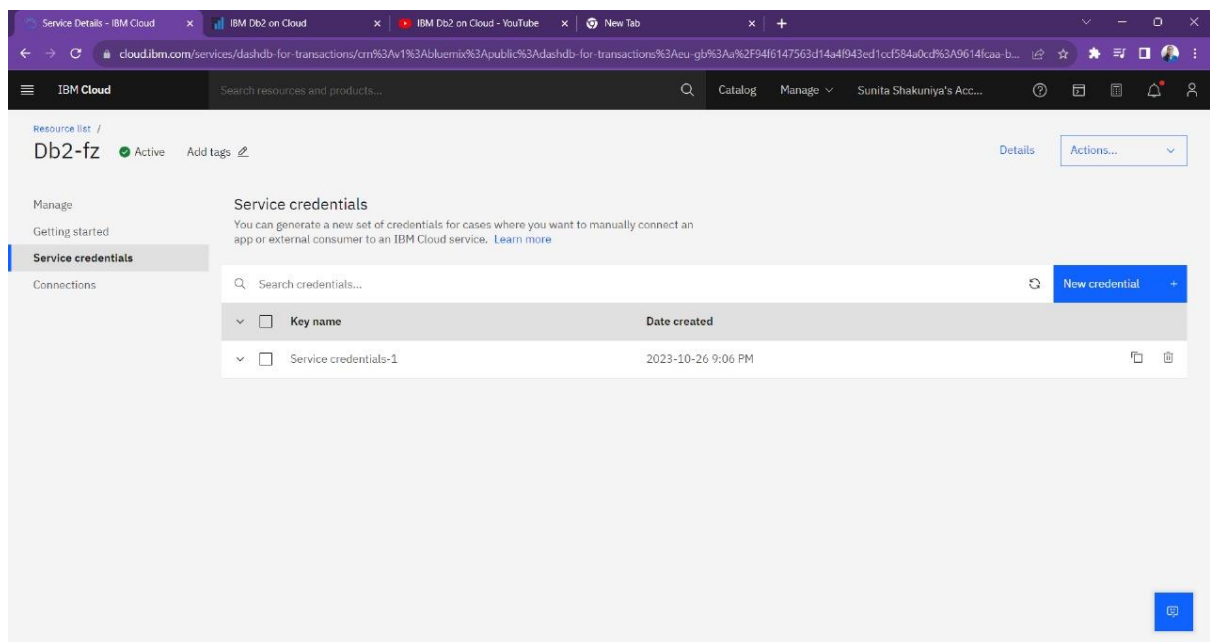
Click on the Access (IBM). Then click on the Service credentials.

In this click on the create button, for the creation of a service.

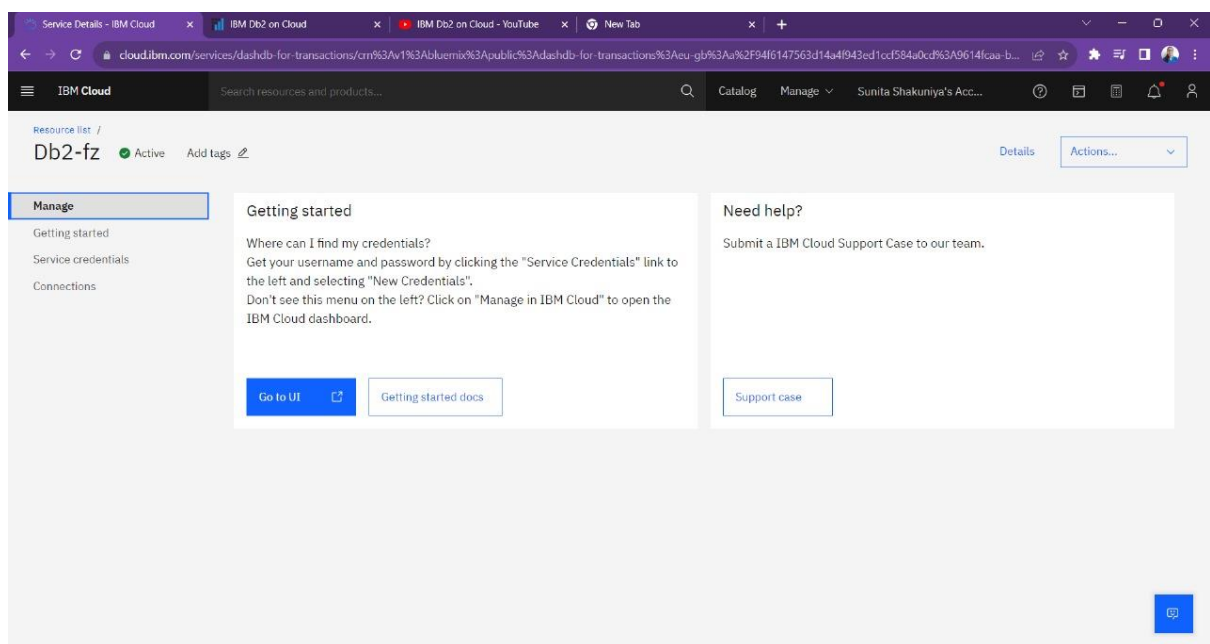
Enter the name as Service credentials-1 and the role of the service, then click on the Add button to Add the service.



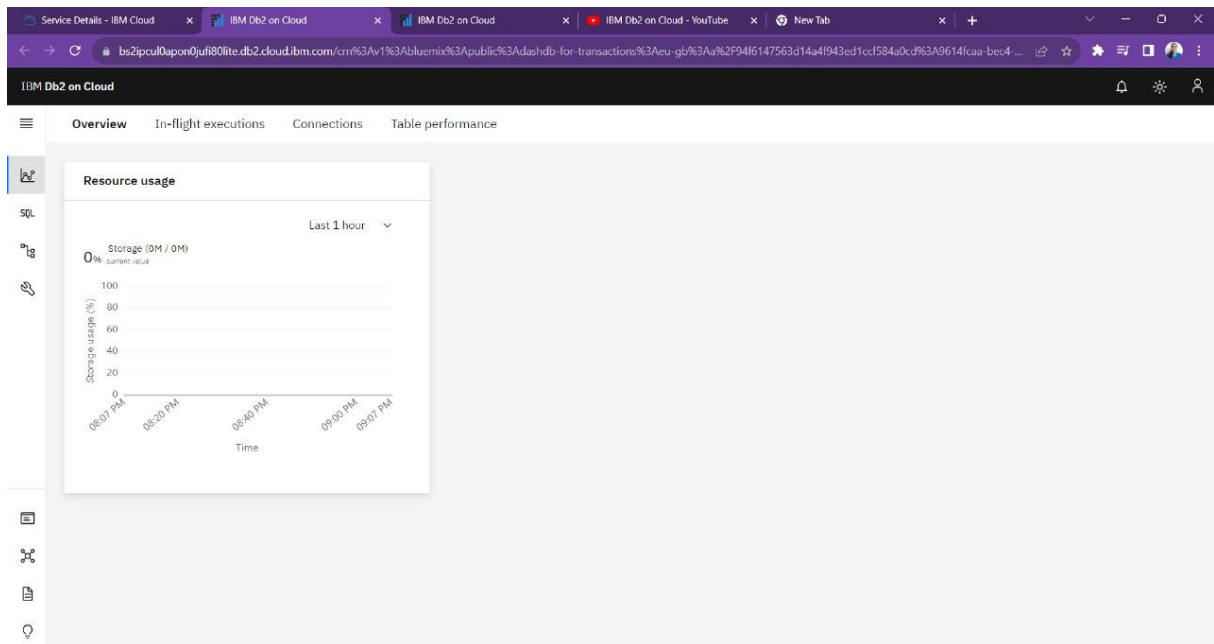
After that Service credentials-1 is created.



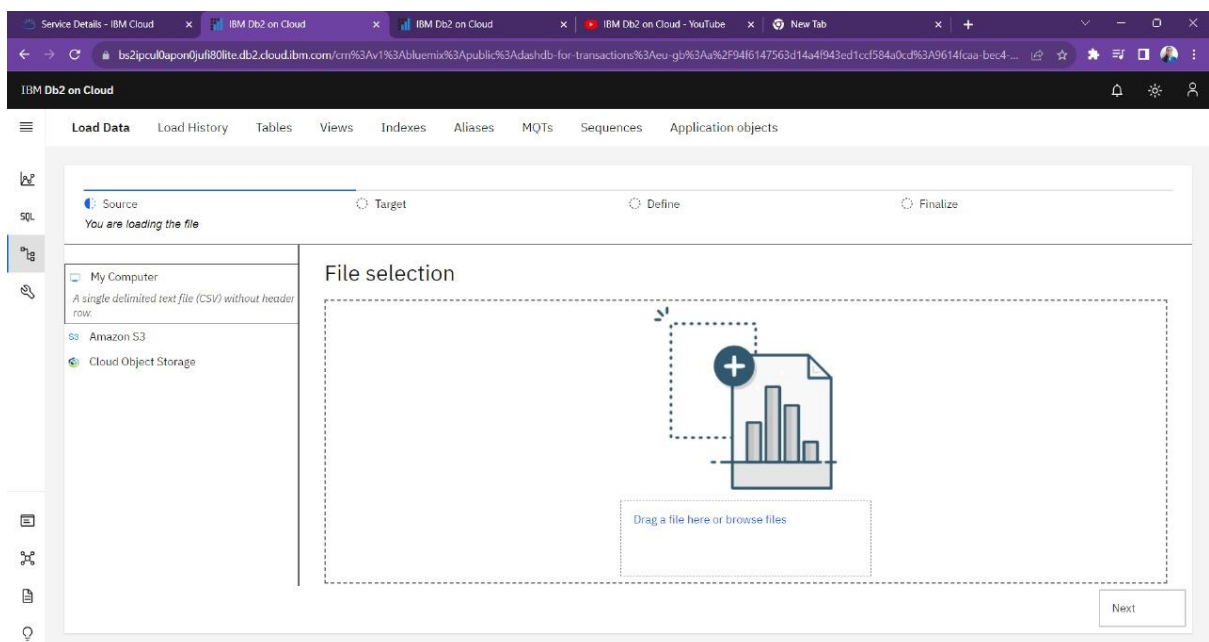
In the IBM Cloud, click on the manage.

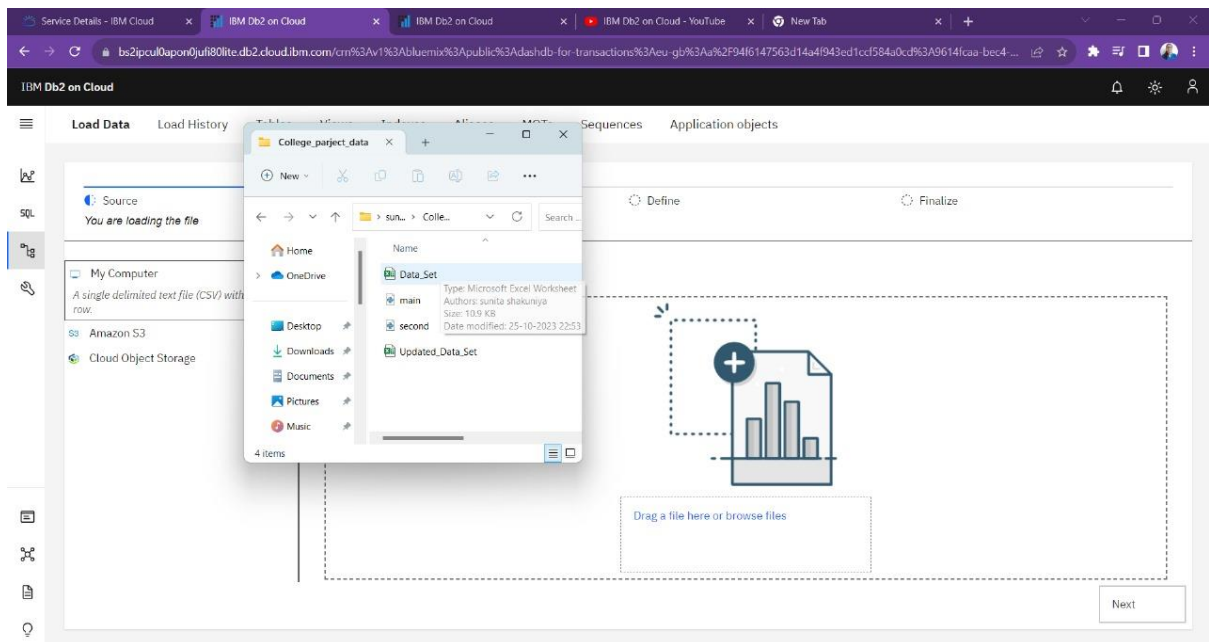


Here is the Overview of the Resource usage.

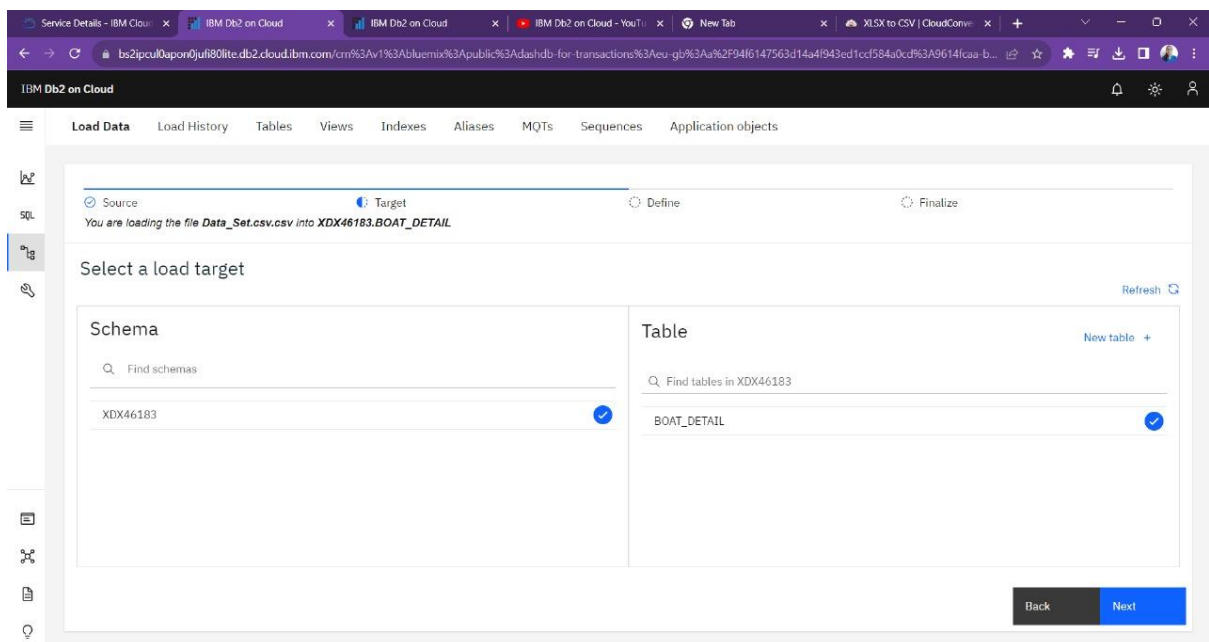


In My Computer we have to upload the file. For that, go to file manager and select the file and then upload it.





Click on the select a load target.



Source: Target Define Finalize

You are loading the file **Data\_Set.csv** into **XDX46183.BOAT\_DETAIL**

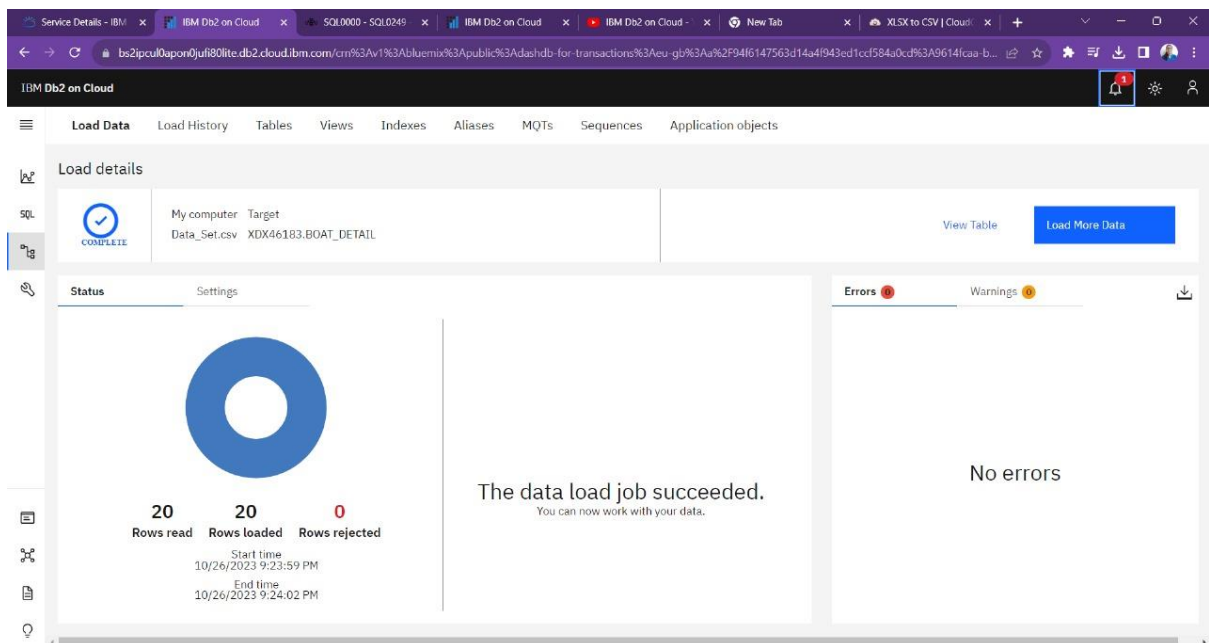
Code page (character encoding): 1208 (UTF-8) Separator: , Header in first row: ☒ Time & date format: ☐ Detect data types: ☐

Date format: YYYY-MM-DD Time format: HH:MM:SS Timestamp format: YYYY-MM-DD HH:MM:SS

	BOATID INTEGER	BOAT_NAME VARCHAR(18)	BOAT_TYPE VARCHAR(16)	LICENSE_STATUS VARCHAR(3)	LICENSE_DATE DATE	LICENSE_TIME VARCHAR(5)
1	521461	SS Enterprise	Cargo Ship	Yes	15-Jan-23	8:00
2	521462	Ocean Voyager	Fishing Boat	Yes	16-Jan-23	8:30
3	521463	Fisher's Delight	Passenger Vessel	Yes	17-Jan-23	9:00
4	521464	Sea Breeze	Yacht	Yes	18-Jan-23	9:30
5	521465	Midnight Mariner	Sailboat	Yes	19-Jan-23	10:00
6	521466	Aqua Serenity	Tugboat	Yes	20-Jan-23	10:30
7	521467	Harbor Master	Container Ship	Yes	21-Jan-23	11:00
8	521468	Wave Runner	Speedboat	Yes	22-Jan-23	11:30
9	521469	Marlin Explorer	Submarine	Yes	23-Jan-23	12:00
10	521470	Coastal Guardian	Cannoe	Yes	24-Jan-23	12:30

Back Next

After that, Here are the loaded data details.



Exploring the Watson Studio page.

**Watson Studio**

Develop sophisticated machine learning models using Notebooks and code-free tools to infuse AI throughout your business.

**Create** | About

Type: Service

Provider: IBM

Last updated: 01/19/2023

Category: AI / Machine Learning

Compliance: HIPAA Enabled, IAM-enabled

Location: Frankfurt, London, Tokyo, Dallas

Related links: Docs

Select a location: London (eu-gb)

Select a pricing plan: Displayed prices do not include tax. Monthly prices shown are for country or location: [United States](#)

Plan	Features and capabilities	Pricing
Lite	<ul style="list-style-type: none"> <li>1 authorized user</li> <li>10 capacity unit-hours monthly limit</li> <li>Environment = # of capacity units required per hour <ul style="list-style-type: none"> <li>1 vCPU + 4 GB RAM = 0.5</li> <li>2 vCPU + 8 GB RAM = 1</li> <li>4 vCPU + 16 GB RAM = 2</li> </ul> </li> <li>Decision Optimization + Watson NLP = Environment + 5</li> <li>Synthetic Data Generator, 2 vCPU + 8 GB RAM = 7 (requires Watson Machine Learning)</li> </ul>	Free

[Opera Browser](#)

**Summary**

**Watson Studio** **Free**

Location: London

Plan: Lite

Service name: Watson Studio-er

Resource group: Default

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

[Create](#)

[Add to estimate](#)

This is Watson Studio-er. In that click on the manage.

**Watson Studio-er** Active [Add tags](#)

**Manage**

Plan

[Launch in](#)

**Watson 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.

**IBM Watson Studio in Cloud Pak for Data and watsonx**

**IBM Cloud Pak for Data, watsonx** Unifying platforms

**IBM Cloud** Base cloud infrastructure

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

**Helpful links**

**Documentation**

Learn about tools, features, and how to perform a wide variety of Data and AI tasks.

**Learning path**

Start a step-by-step tutorial to get up and running quickly.

**Videos**

Watch videos to learn about Watson Studio.

This is resource list.



Resource list

Name	Group	Location	Product	Status	Tags
Filter by name or IP address... Filter by group or org... Filter... Filter... Filter...					
Networking (0)					
Storage (0)					
Converged Infrastructure (0)					
Enterprise applications (0)					
AI / Machine Learning (1)					
Watson Studio	Default	London	Watson Studio	Active	-
Analytics (1)					
IBM Cognos Dashboard Embedded	Default	London	IBM Cognos Dashboard Embe...	Active	-
Blockchain (0)					
Databases (1+)					
Developer tools (0)					
Logging and monitoring (0)					

This is Data\_Set.csv in column preview.

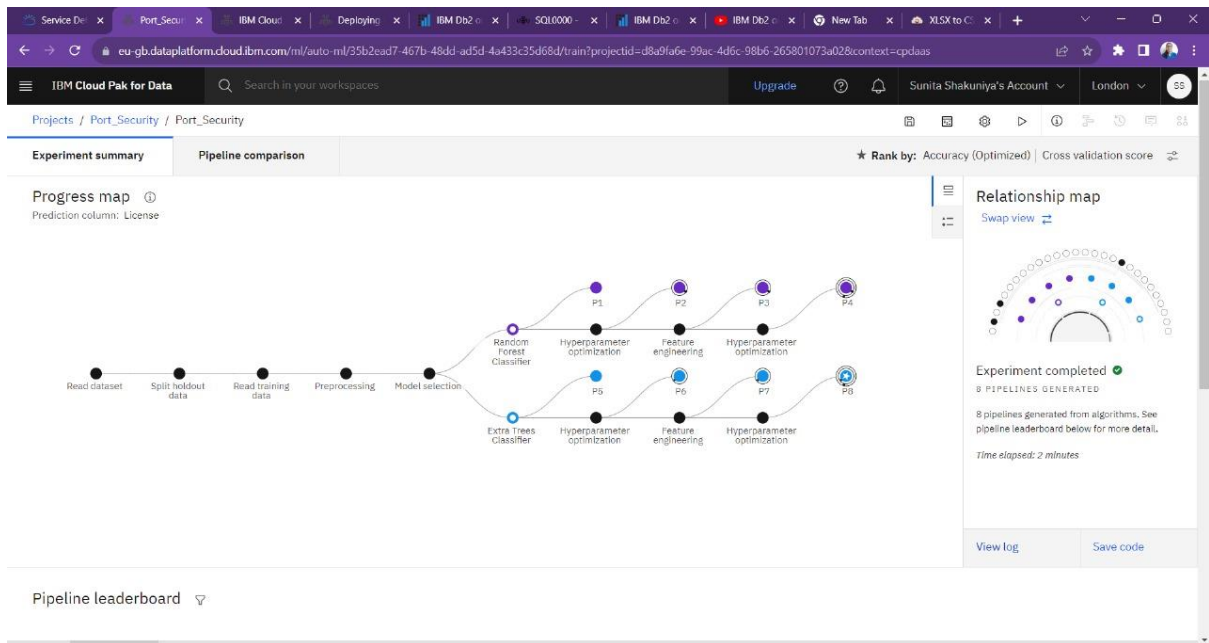
Data source: Data\_Set.csv

Showing and visualizing 20 rows

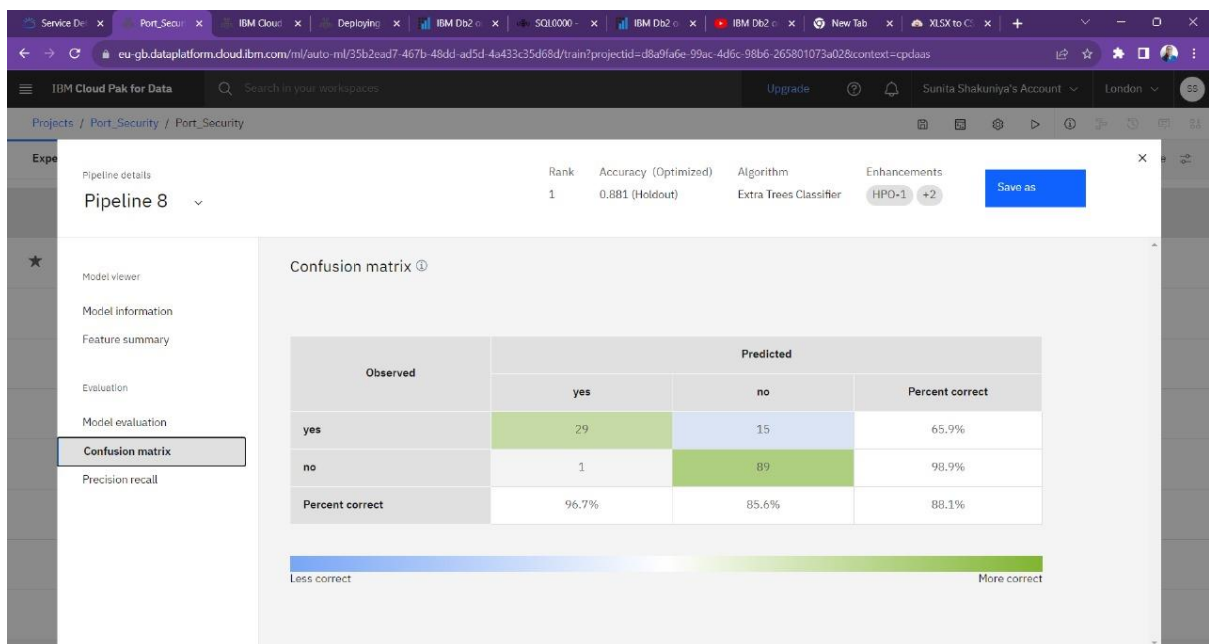
boatid	Boat Name	Boat Type	License Status	License Date	License time
521461	SS Enterprise	Cargo Ship	Yes	15-Jan-23	08:00
521462	Ocean Voyager	Fishing Boat	Yes	16-Jan-23	08:30
521463	Fisher's Delight	Passenger Vessel	Yes	17-Jan-23	09:00
521464	Sea Breeze	Yacht	Yes	18-Jan-23	09:30
521465	Midnight Mariner	Sailboat	Yes	19-Jan-23	10:00
521466	Aqua Serenity	Tugboat	Yes	20-Jan-23	10:30
521467	Harbor Master	Container Ship	Yes	21-Jan-23	11:00

This is progress map.





This is Pipeline 8. In this pipeline 8 click on the conclusion matrix.



## **Conclusion:**

In conclusion, our hands-on experience in creating an IBM Cloud environment, exploring DB2, and working with Watson Studio has been invaluable. These practical exercises have not only deepened our understanding of cutting-edge technology but have also equipped us with the skills and knowledge needed to leverage these tools in real-world applications. As we move forward, we can confidently harness the power of IBM Cloud, DB2, and Watson Studio to drive innovation and solve complex problems in the ever-evolving landscape of data science and cloud computing. This hands-on journey has opened new doors to possibilities and has set the stage for exciting future endeavors in the realm of technology and data analytics.