

Lab-0: Setup Environment

Introduction

This lab will set up the Watson Studio environment for subsequent labs and introduce you to the Project features of Watson Studio. Watson Studio is an integrated platform of tools, services, data, and meta-data to help companies and agencies accelerate their shift to be data driven organizations. The platform enables data professionals such as data scientists, data engineers, business analysts, and application developers collaboratively work with data to build, train, deploy machine learning and deep learning models at scale to infuse AI into business to drive innovation. Watson Studio is designed to support the development and deployment of data and analytics assets for the enterprise.

Objectives

The goals of this lab are to familiarize the user with the Project features of Watson Studio, and to set up the environment for subsequent labs. Projects are a core component of Watson Studio. Projects enable you to organize your analytic and data assets in one place. Projects are also the home base for collaboration. Colleagues can be added as collaborators on a project with administrator, editor, or viewer access.

After completing this lab, you will be familiar with these features of Watson Studio.

1. Create a project
2. Create an object storage instance and associate it with the project
3. Associate an existing Watson Machine Learning service instance with the project
4. Create a deployment space

Create a Project

1. If you are not logged into Watson Studio, log into your Watson Studio account by typing in the url **dataplatfom.cloud.ibm.com** in your Firefox or Chrome browser. Otherwise, skip to step 5.
2. Select the **region**, enter the **Username** and the **Password** and click **Log-In**.

Log in to IBM Cloud Pak for Data

Log in to explore IBM Cloud Pak for Data services on one platform, fully managed on the IBM Cloud, and see how you can accelerate your journey to AI today.

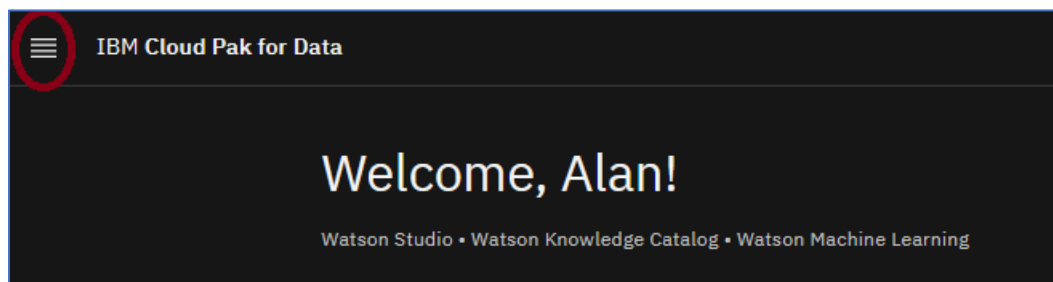
Need an account? [Sign up and try for free](#)

You will log into Dallas ▾

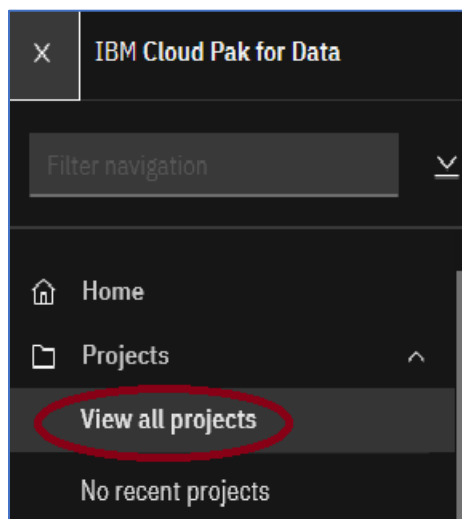
Username Forgot ID?

Password Forgot password?

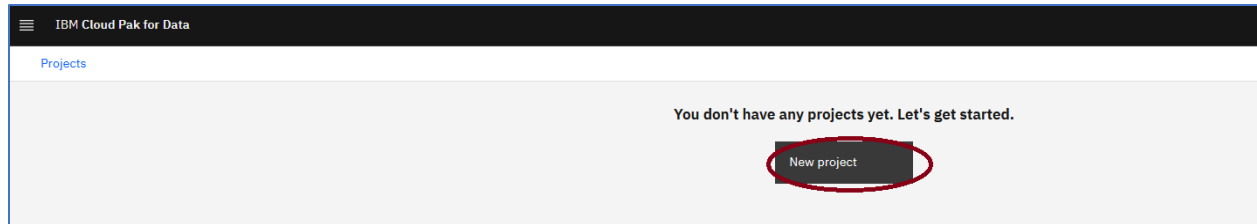
3. Click on the hamburger icon .



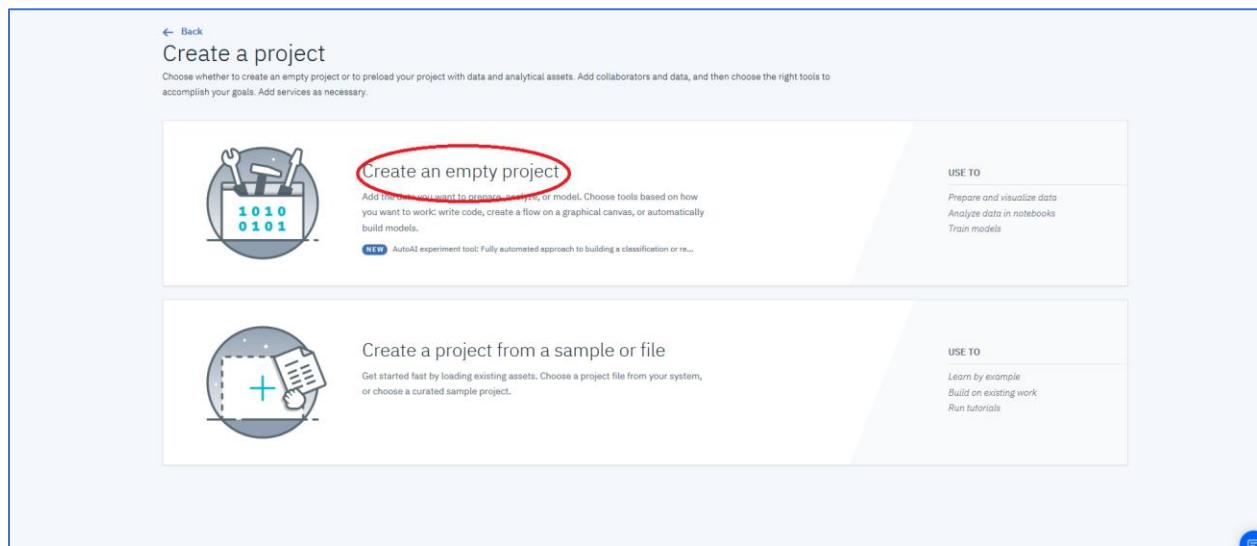
4. Click on **Projects**, and then click on **View All Projects**



5. Click on **New Project**.



6. Click on **Create an empty project**.



7. Enter “Watson Studio Labs” for the **Name**, optionally enter a **Description**, make sure to uncheck **Restrict who can be a collaborator** (if it’s checked), and in **Define Storage** click on **Add** to add an object storage instance. Note if you already have object storage defined (i.e. you have previously used Watson Studio), then skip to step 10.

New project

Define project details

Name

Watson Studio Labs

Description

Project description

Choose project options

☐ Restrict who can be a collaborator ⓘ

Project includes integration with [Cloud Object Storage](#) for storing project assets.

Define storage


1 Select storage service

Add

Add an object storage instance, and then return to this page and click Refresh.

2 Refresh

8. Make sure the **Lite** plan is selected, and then click on **Create**

 Cloud Object Storage

Author: IBM • Date of last update: Sep 23, 2020 • [Docs](#) • [API Docs](#)

Create

About

Pricing plan

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

Plan	Features	Pricing
Lite	1 COS Service Instance Storage up to 25 GB/month Up to 2,000 Class A (PUT, COPY, POST, and LIST) requests per month Up to 20,000 Class B (GET and all others) requests per month Up to 10 GB/month of Data Retrieval Up to 5GB of egress (Public Outbound) Applies to aggregate total across all storage bucket classes The Lite service plan for Cloud Object Storage includes Regional and Cross Regional resiliency, flexible data classes, and built in security. Lite plan services are deleted after 30 days of inactivity.	Free
Standard	There is no minimum fee, so you pay only for what you use.	See pricing details

Cloud Object Storage

Region: Global
Plan: Lite
Service name: Cloud Object Storage-yp
Resource group: Default

Create

9. Note that it may take a minute for your storage service to show up. Click **Refresh**.

New project

Define project details

Name

Watson Studio Labs

Description

Project description

Choose project options

☐ Restrict who can be a collaborator ⓘ

Project includes integration with [Cloud Object Storage](#) for storing project assets.

Define storage

1 Select storage service

Add

Add an object storage instance, and then return to this page and click Refresh.

2 Refresh

10. Click Create.

New project

Define project details

Name
Watson Studio Labs

Description
Project description

Choose project options

☐ Restrict who can be a collaborator ⓘ

Project includes integration with [Cloud Object Storage](#) for storing project assets.

Storage
cloud-object-storage-go

Cancel Create

11. The Project **Overview** page is shown. This page provides summarized information about the project. In addition to the Overview page, are five other pages described below.

- Assets Page** – Analytics and Data assets can be added to the project from this page.
- Environments Page** - Provides information on the current notebook environments that are defined, lists the active notebook environments currently running, and enables users to create custom notebook environments.
- Jobs Page** – Provides the interface to the job subsystem.
- Access Control** – Lists the project collaborators and enables users to add/remove collaborators.
- Settings** – Enables users to view and set project attributes.

Projects / Watson Studio Labs

Overview Assets Environments Jobs Access Control Settings

Watson Studio Labs
Last Updated: Oct 12, 2020

Readme

Overview

Date created
Oct 12, 2020

Description
No description available

Storage
0 Byte used
Cloud Object Storage

Collaborators
Alan Doe
Admin

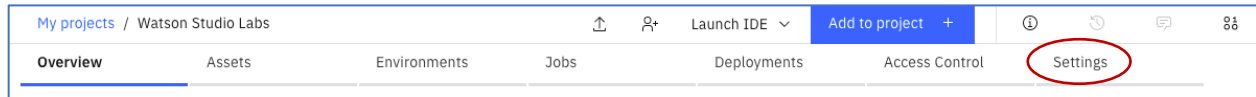
Recent activity

Alerts related to this project appear here when the project is active.

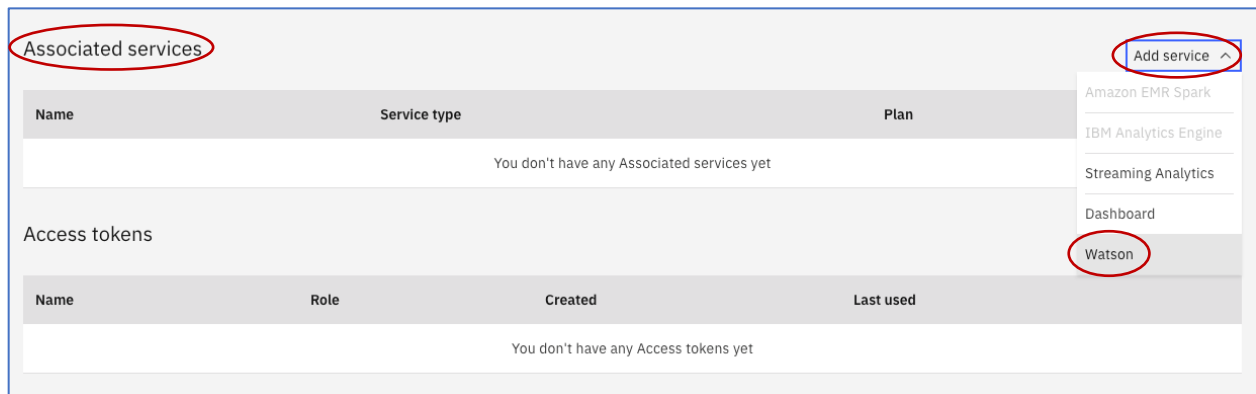
Associate a Watson Machine Learning Service to the Project

To save and deploy machine learning and/or optimization models, a Watson Machine Learning service must be created (if one doesn't exist) and added to our project.

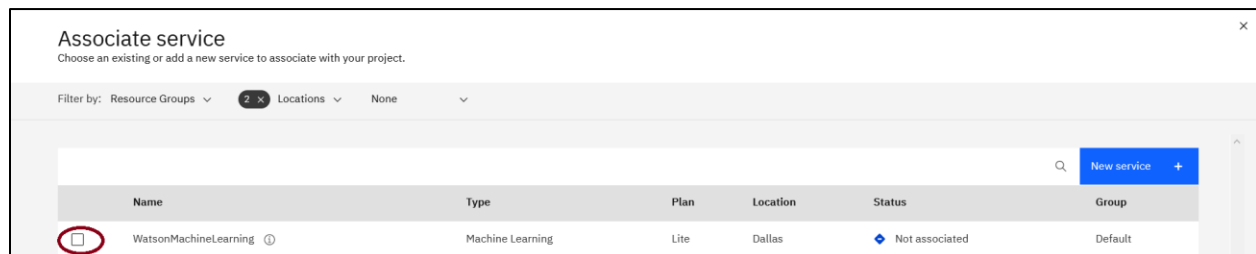
1. Click on **Settings** to navigate to the Project **Settings** page.



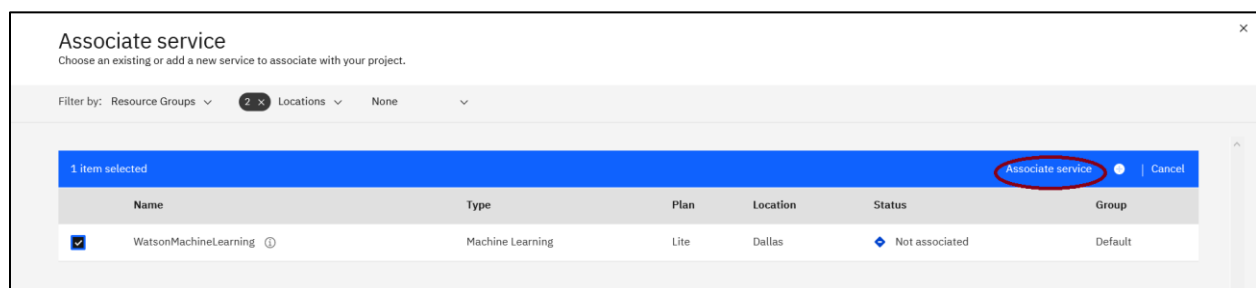
2. Scroll down to **Associated Services**, click on **Add service**, click on **Watson**.




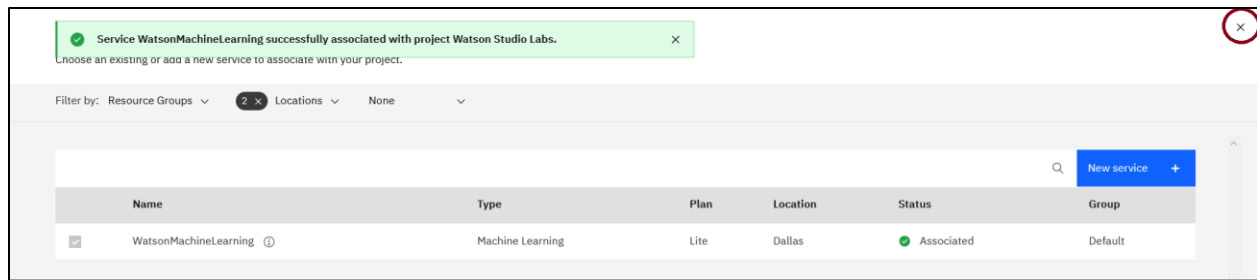
3. Newer Watson Studio accounts come with the WatsonMachineLearning instance already created. For those accounts the WatsonMachineLearning service will be displayed. Click on the checkbox next to WatsonMachineLearning. Otherwise skip to step 6.



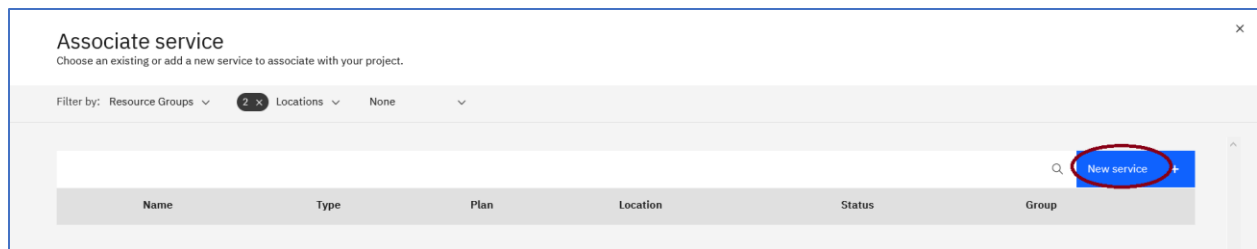
4. Click on **Associate service**.



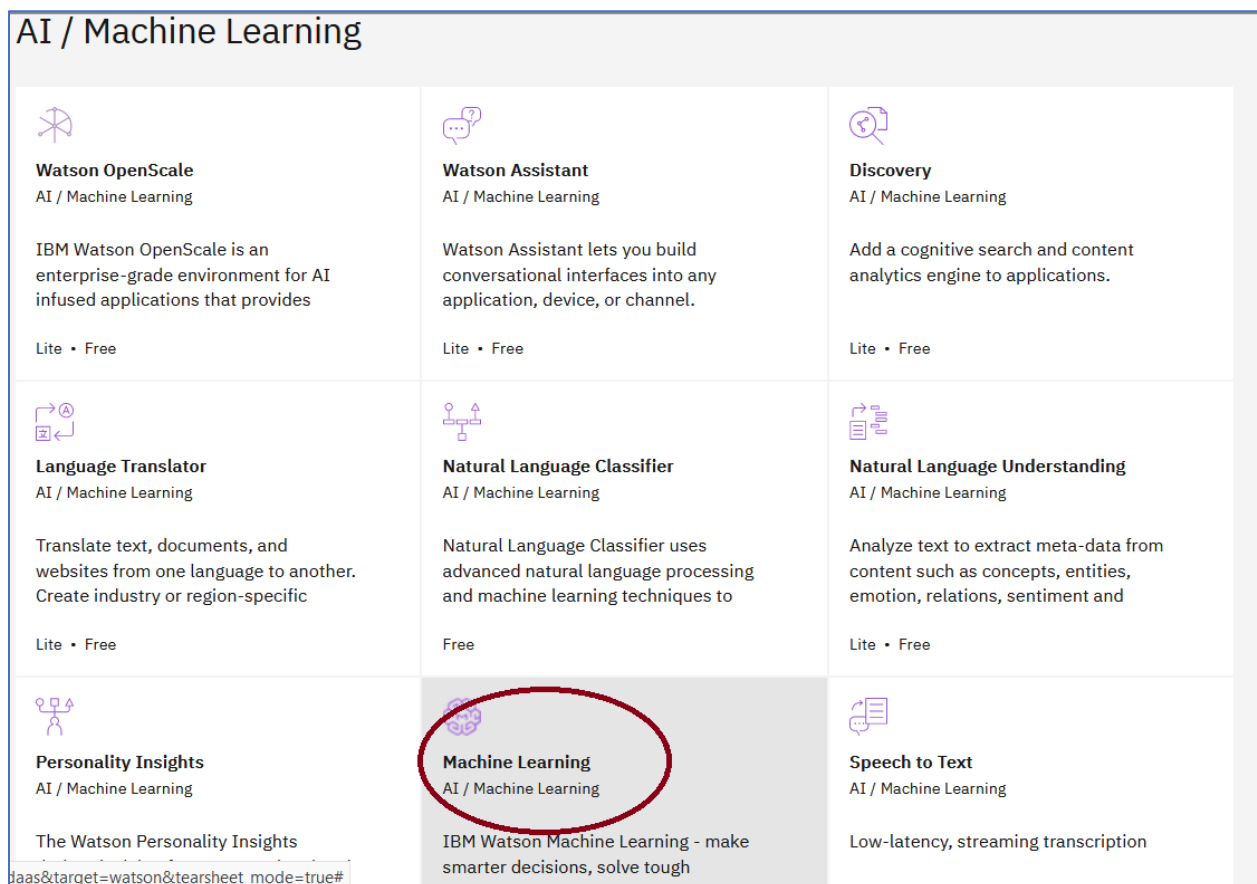
5. The WatsonMachineLearning service is now associated with the project. Click on the close icon.  Skip to the next section- **Create a Deployment Space**.



6. The following steps are to be followed if you don't have an existing WatsonMachineLearning service listed, click on **New service**.



7. Click on the **Machine Learning** tile.



8. Make sure the Lite Plan is selected. Scroll down and change the default name of the Machine Learning service to **WatsonMachineLearning**. Click **Create**.

Configure your resource

Service name:

Select a resource group:

Tags:

[View terms](#)

9. Click the check box next to WatsonMachineLearning.

Associate service

Choose an existing or add a new service to associate with your project.

Filter by: Resource Groups Locations

Name	Type	Plan	Location	Status	Group
<input type="checkbox"/> WatsonMachineLearning ⓘ	Machine Learning	Lite	Dallas	Not associated	Default

10. Click on **Associate service**.

Associate service

Choose an existing or add a new service to associate with your project.

Filter by: Resource Groups Locations

1 item selected

Name	Type	Plan	Location	Status	Group
<input checked="" type="checkbox"/> WatsonMachineLearning ⓘ	Machine Learning	Lite	Dallas	Not associated	Default

11. The WatsonMachineLearning service is now associated with the project.

Service WatsonMachineLearning successfully associated with project Watson Studio Labs.


Choose an existing or add a new service to associate with your project.

Filter by: Resource Groups Locations

Name	Type	Plan	Location	Status	Group
<input checked="" type="checkbox"/> WatsonMachineLearning ⓘ	Machine Learning	Lite	Dallas	Associated	Default

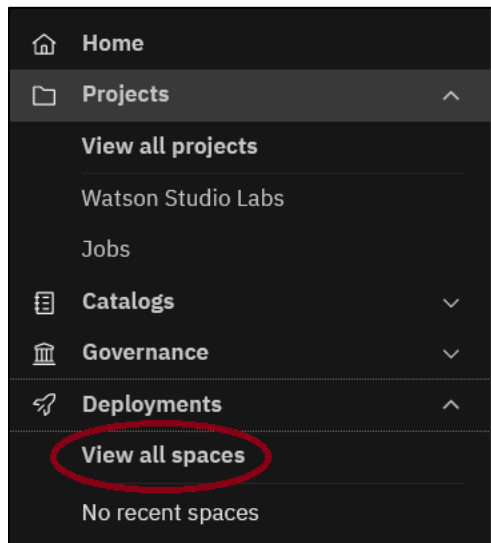
Create a Deployment Space

Deployment spaces are used to deploy models and manage deployments. A project is associated with one and only one deployment space. In this section, we will create a deployment space.

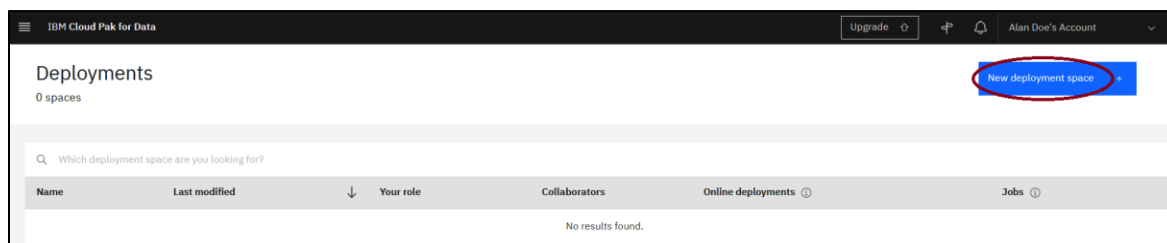
1. Click on the hamburger icon .



2. Click on **View all spaces** under **Deployments**



3. Click on **New deployment space**.



4. Enter **WatsonStudioLabs** for the **Name**, scroll down if necessary and click on **WatsonMachineLearning** for the **machine learning service** and click **Create**.

Define space details

Name

Watson Studio Labs

Description (Optional)

Deployment space description

Deployment space tags (optional)

Add a tag

Select storage service

Cloud Object Storage-xx

Select machine learning service (optional)

WatsonMachineLearning

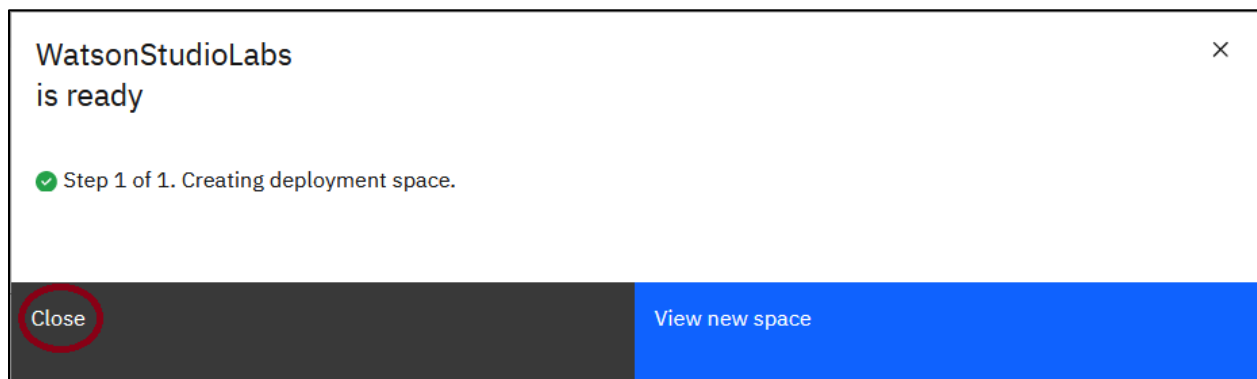
Upload space assets (optional)

Populate your space with assets exported from a space to a .zip file. You can add more assets after the space is created.

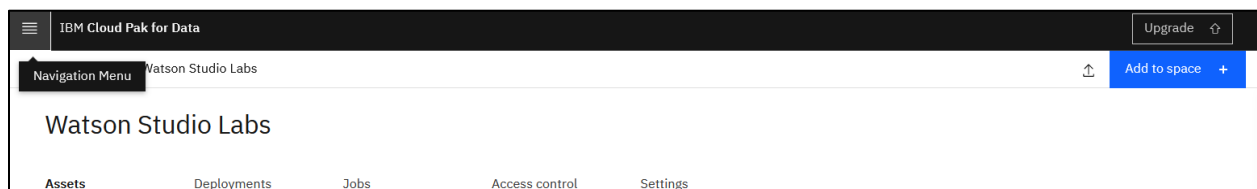
Drop .zip file here or browse your files to upload

Cancel
Create

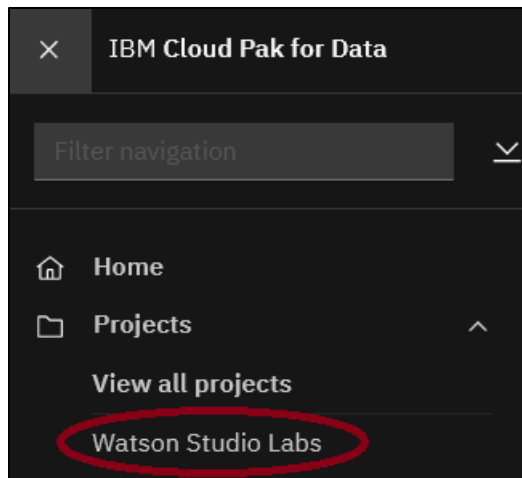
5. Click **Close**.



6. Return to the Watson Studio project by clicking on the hamburger icon




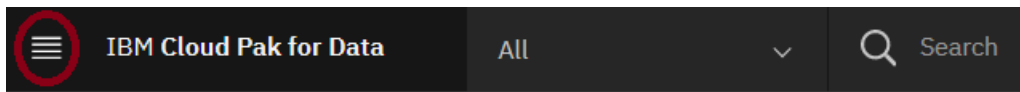
7. Click on **Watson Studio Labs** under **Projects**.



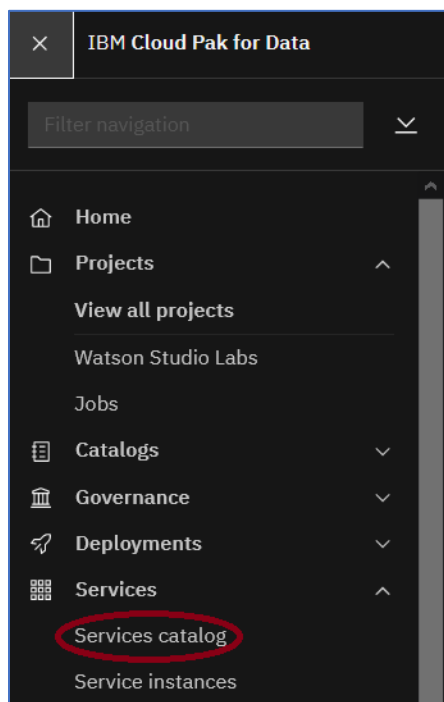
Provision Watson OpenScale

In this section, we will provision a Watson OpenScale service and run the AutoSetup as preparation for the Watson OpenScale lab. The AutoSetup takes about 7-10 minutes and it can run in the background so that it is completed by the time we start the OpenScale lab.

1. Click on the  icon.



2. Click on **Services** and then **Service Catalog**.



3. Click on **Watson OpenScale**


Services catalog


Find services


Category


- ☐ AI / Machine Learning
- ☐ Databases
- ☐ Mobile
- ☐ Analytics
- ☐ Integration
- ☐ Storage


AI / Machine Learning


**Watson OpenScale**
AI / Machine Learning
IBM Watson OpenScale is an enterprise-grade environment for AI infused applications that provides...
Lite • Free

**Watson Assistant**
AI / Machine Learning
Watson Assistant lets you build conversational interfaces into any application, device, or channel.
Lite • Free


**Watson Studio**
AI / Machine Learning
Embed AI and machine learning into your business. Create custom models using your own data.
Lite • Free

**Watson Knowledge Catalog**
AI / Machine Learning
Discover, catalog, and securely share enterprise data

**Watson Discovery**
AI / Machine Learning
Add a cognitive search and content analytics engine to applications

**Language Translator**
AI / Machine Learning
Translate text, documents, and websites from one language to another

4. Make sure the Lite plan is selected and click **Create**.

 **Watson OpenScale**

Author: IBM • Date of last update: Jan 7, 2021 • [Docs](#) • [API Docs](#)

Create About

Select a region

Select a region

Dallas

Pricing plan

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

Plan	Features	Pricing
Lite	Lite - Maximum 5 deployed models to be monitored Maximum 2 protected features per model and 50,000 payload rows (cumulative) across 5 deployed models, per month for Fairness monitoring Maximum 50,000 rows of input (cumulative) across 5 deployed models, per month for active De-Biasing Maximum 20 transactions explained per month through the Explainability feature Maximum 50,000 feedback records (cumulative) across 5 models, per month for Accuracy monitoring Internal Postgres db instance that supports the above capacity; Data cannot be migrated from this instance; If upgrading to Standard plan and continuity is required from Lite plan, please provision your own instance of paid Postgres db from IBM Cloud catalog	Free

Create

5. Click on the icon on the right side of the Watson OpenScale entry.

Service instances

Your existing service instances are listed below. You must [upgrade](#) from a Lite account to a paid account before upgrading individual services.

Filter by: Resource Groups 2 x Locations 1 x wsuser59000@gmail.com Service Type Service Plan

Find service instances Add service +

Name	Type	Plan	Location	Group
Cloud Object Storage-zj	Cloud Object Storage	Lite	Global	Default
WatsonMachineLearning	Machine Learning	Lite	Dallas	Default
KnowledgeCatalog	Watson Knowledge Catalog	Lite	Dallas	Default
Watson OpenScale-lc	Watson OpenScale	Lite	Dallas	Default
WatsonStudio	Watson Studio	Lite	Dallas	Default

6. Click **Launch**

Name	Type	Plan	Location	Group
Cloud Object Storage-zj	Cloud Object Storage	Lite	Global	Default
WatsonMachineLearning	Machine Learning	Lite	Dallas	Default
KnowledgeCatalog	Watson Knowledge Catalog	Lite	Dallas	Default
Watson OpenScale-lc	Watson OpenScale	Lite	Dallas	Default
WatsonStudio	Watson Studio	Lite	Dallas	Default

Upgrade service
Launch
Manage in IBM CL...

7. Click **Launch Application**

Resource list /

Watson OpenScale-lc Active cpdaas Details Actions...

Getting started

Manage

Plan

Watson OpenScale

Welcome to Watson OpenScale, let's get started.

Launch Application

8. Click **Auto setup**.



Welcome to Watson OpenScale

Watson OpenScale maintains the health of AI models in pre-production and production environments by measuring model quality, fairness, and drift in both data and accuracy. It provides AI model transparency by explaining model transactions.

To get up-and-running, we'll set up a machine learning provider, database, and sample model for you. The process will take about 10 minutes. Ready to go?

[Manual setup](#)

[Auto setup](#)

9. The panel below will be displayed.

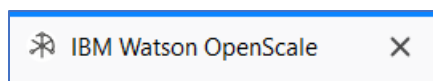


Hang tight!

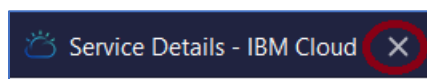
We're setting things up automatically. Follow the status messages below to review progress. This process will take about 10 minutes.

C [1/31] Initializing and setting up services

10. The Auto setup will run for approximately 7-10 minutes. Please make sure you **DON'T CLOSE** the **IBM Watson OpenScale** browser tab where the Auto setup is running.



11. You can close the Service Details – IBM Cloud



You have completed Lab-0!

- ✓ Created a project
- ✓ Created an object storage instance and associated it with the project
- ✓ Associated an existing Watson Machine Learning service instance with the project or created a new service instance and associated it with the project.

✓ Created a deployment space