

# Lab-1: Setup Environment

## Introduction

This lab will set up the Cloud Pak for Data environment for subsequent labs and introduce you to the Project features of Cloud Pak for Data. Cloud Pak for Data 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 to collaboratively work with data to build, train, deploy machine learning and deep learning models at scale to infuse AI into business to drive innovation. Cloud Pak for Data is designed to support the development and deployment of data and analytics assets for the enterprise.

## Objectives

The goal of this lab is to familiarize the user with the Project features of Cloud Pak for Data, and to set up the environment for subsequent labs. Projects are a core component of Cloud Pak for Data. 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.

You will complete these steps in this lab.

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. Add a collaborator to the project
5. Create a deployment space
6. Provision Watson OpenScale

## Create a Project

1. If you are not logged into Cloud Pak for Data, log into your Cloud Pak for Data account by typing in the url **dataplatfrom.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.

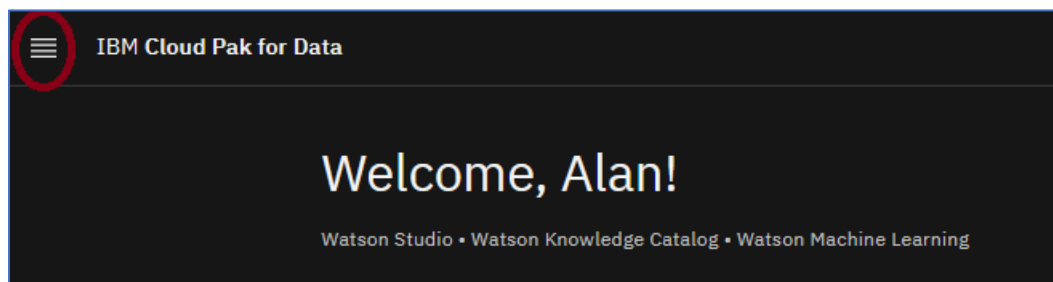
Need an account? [Sign up and try for free](#)

You will log into Dallas ▾

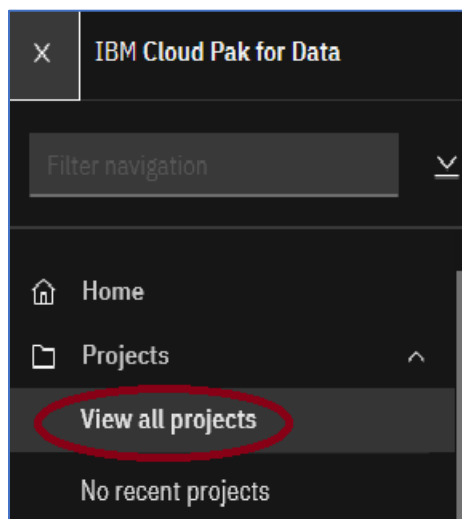
Username Forgot ID?

Password Forgot password?

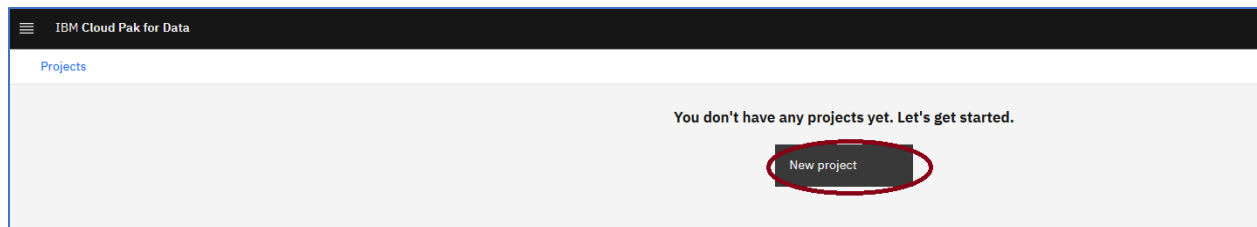
3. Click on the hamburger icon .



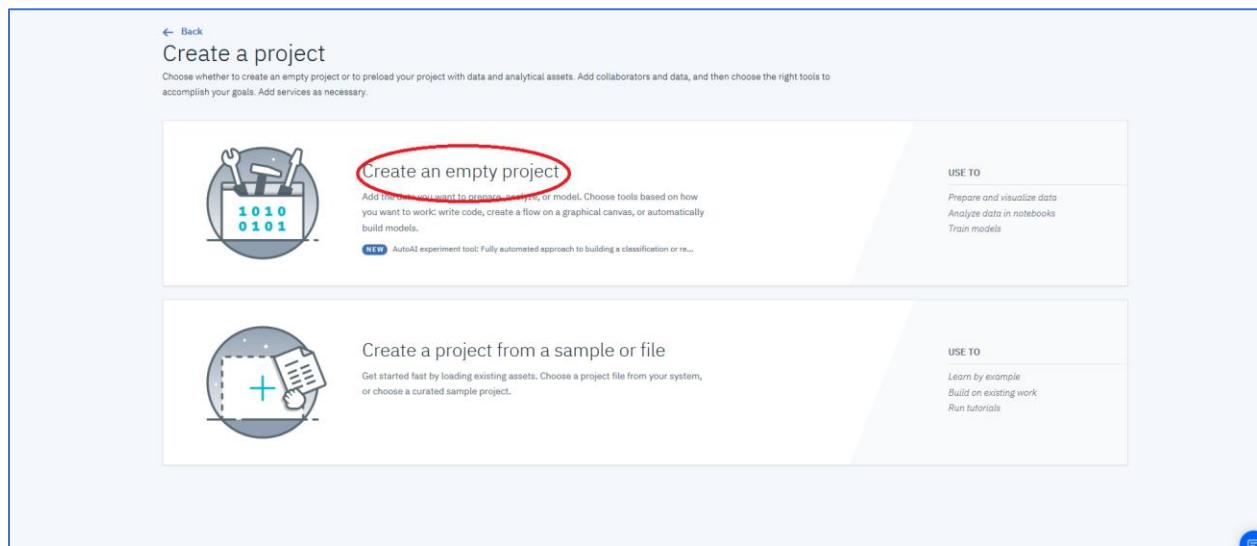
4. Click on **Projects**, and then click on **View All Projects**



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 click **Create**. Note, if you do not have object storage already provisioned, you will see an area marked **Define Storage** and this must be completed before you can click Create. If you need to define object storage, please continue, otherwise go to step 12.

8. In the **Define Storage** area click on **Add** to add an object storage instance.

## New project

### Define project details

Name

Watson Studio Labs

Description

Project description

### Define storage

1 Select storage service

Add

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

2 Refresh

### Choose project options

☐ Restrict who can be a collaborator ⓘ

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

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

### Cloud Object Storage

Region: Global

Plan: Lite

Service name: Cloud Object Storage-yp

Resource group: Default

Create

10. 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

### Define storage

1 Select storage service

Add

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

2 Refresh

### Choose project options

☐ Restrict who can be a collaborator ⓘ

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

## 11. 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

12. 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

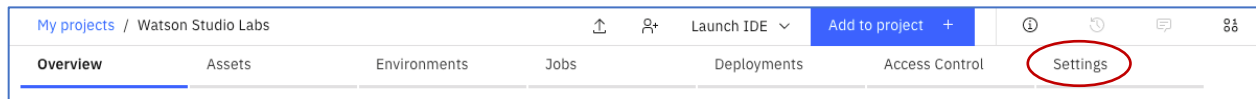
**Recent activity**

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

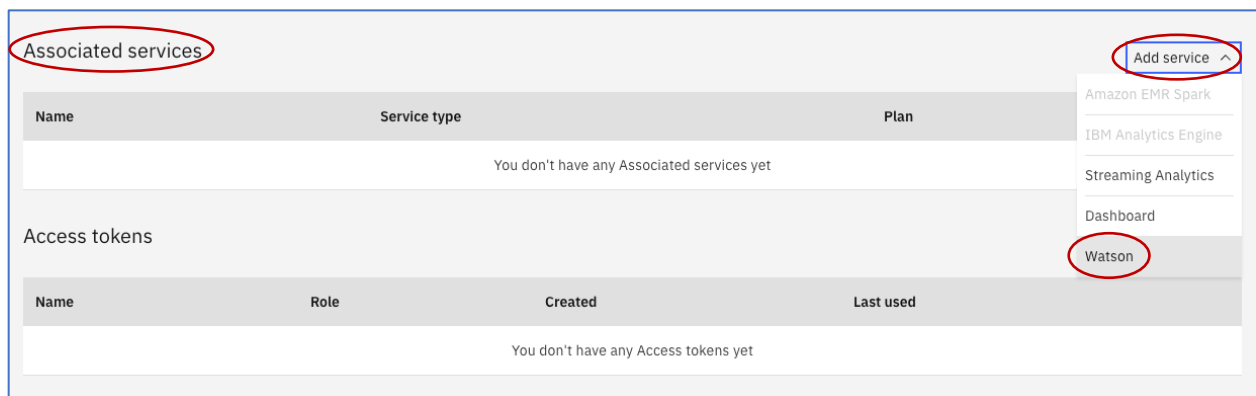
## Associate a Watson Machine Learning Service to the Project

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

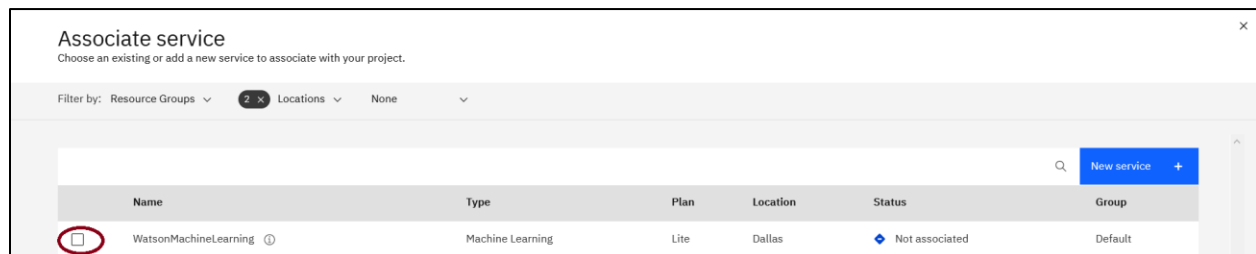
1. Click on **Settings** to navigate to the Project **Settings** page.



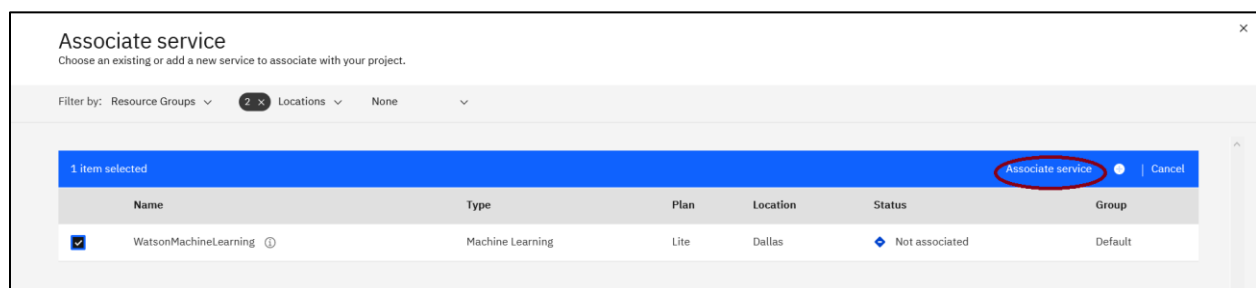
2. Scroll down to **Associated Services**, click on **Add service**, click on **Watson**.




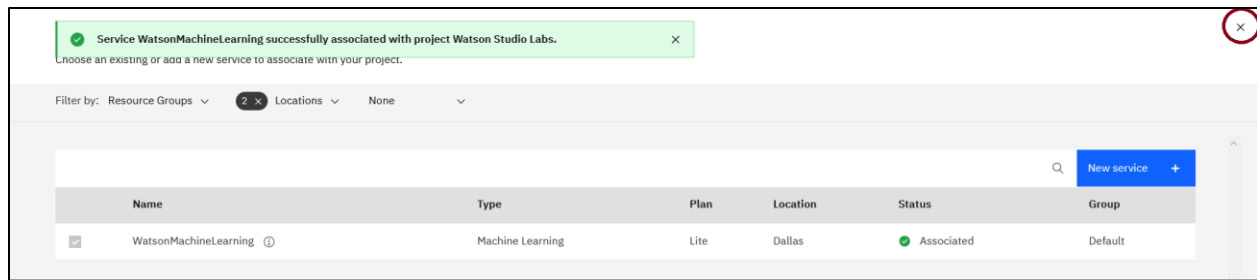
3. Newer Watson Studio accounts come with the WatsonMachineLearning instance already created. For those accounts the WatsonMachineLearning service will be displayed. Click on the checkbox next to WatsonMachineLearning. Otherwise skip to step 6.



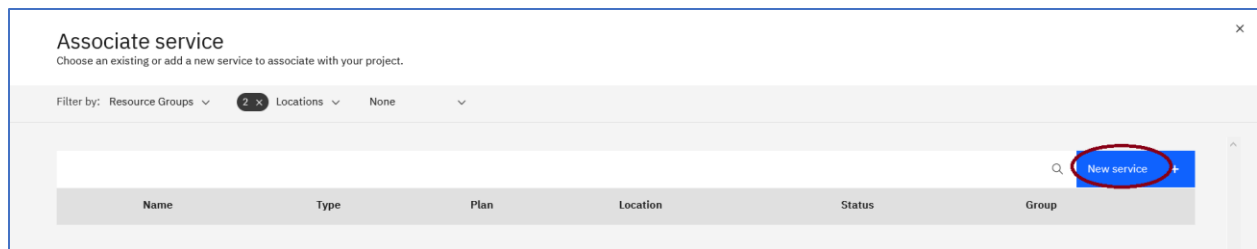
4. Click on **Associate service**.



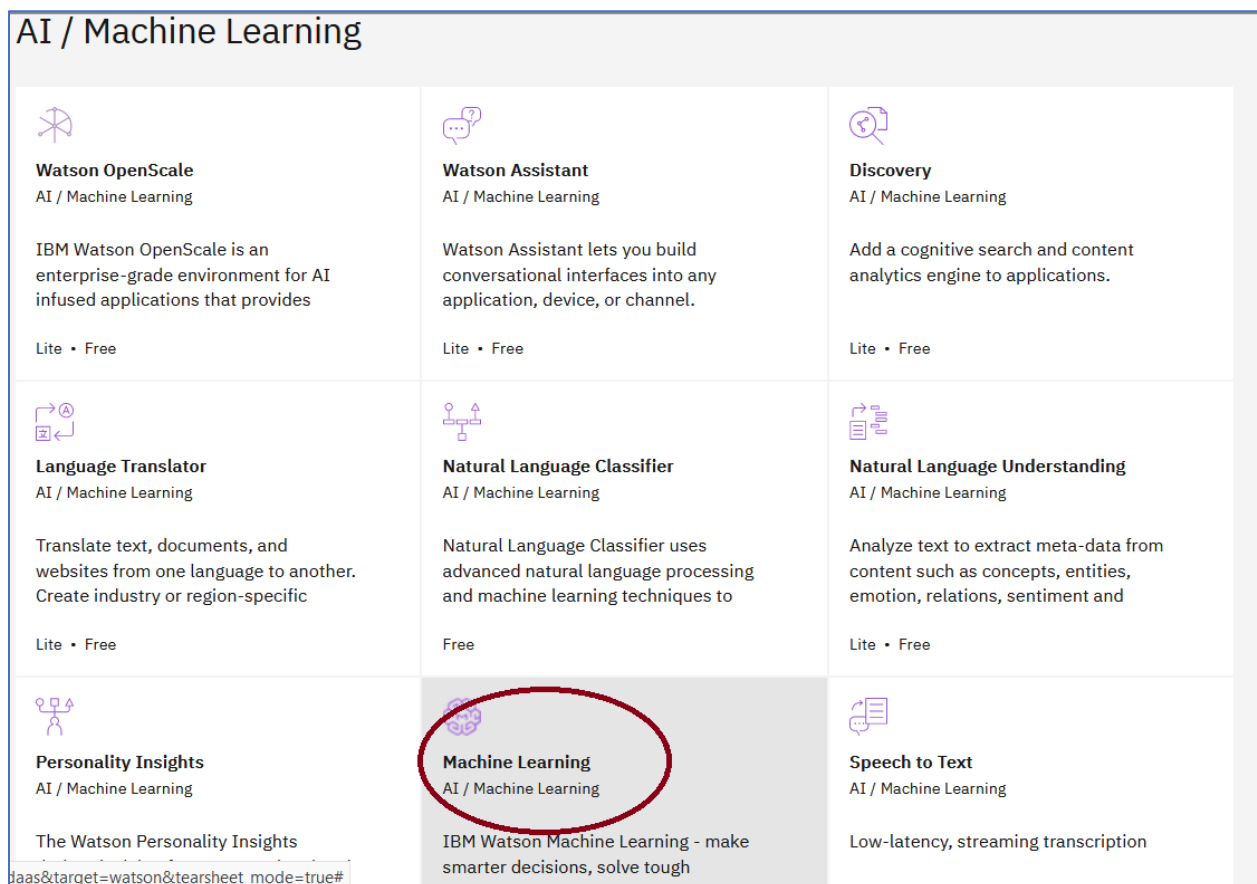
5. The WatsonMachineLearning service is now associated with the project. Click on the close icon.  Skip to the next section- **Add a Project Collaborator**.



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

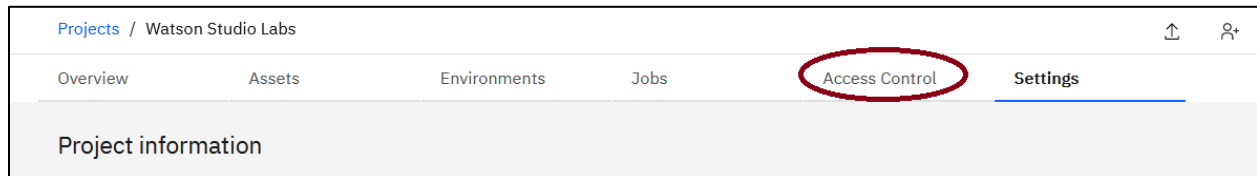


## Add a Project Collaborator

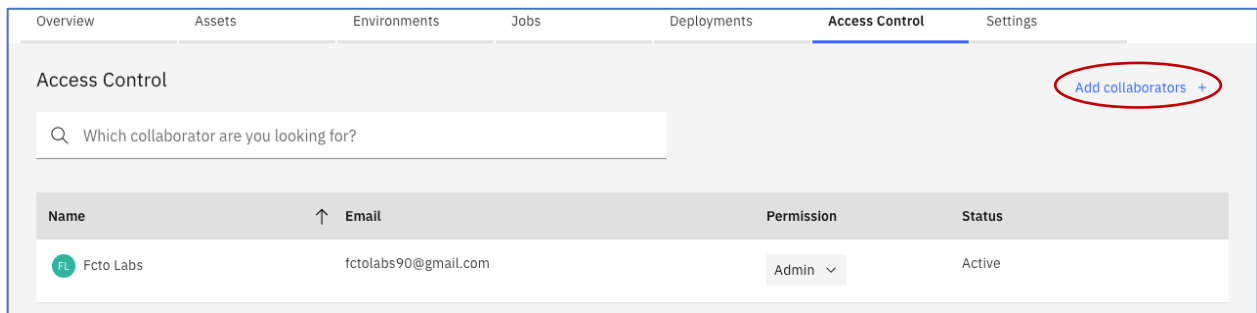
Colleagues can gain access to a project's data and analytic assets by being made a collaborator. Permissions are based on the assigned role. The roles are administrator, editor, and viewer.

You will add a collaborator with a role of **Viewer**.

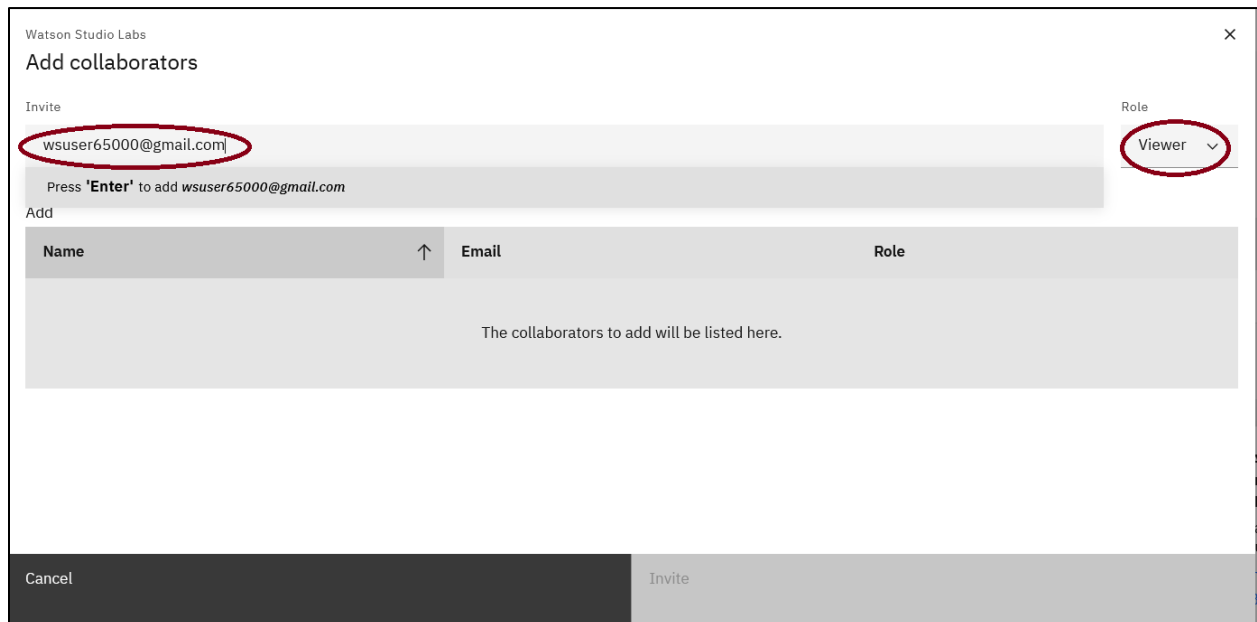
1. Click on the **Access Control** tab (you may need to scroll to the top)



2. Click on **Add collaborators**.



3. For **Invite**, enter [wsuser65000@gmail.com](mailto:wsuser65000@gmail.com), select **Viewer** for the **Role**, press the <Enter> key.



4. The collaborator is added to the list of Collaborators. Click on **Invite**.

Watson Studio Labs


## Add collaborators

Invite

Add more people...

Type email address

Add 1

Name	Email	Role
 Julian Doe	wsuser65000@gmail.com	Viewer <span>▼</span>


Cancel Invite

5. The collaborator is added.

Name	Email	Permission	Status
 Frank Doe	wsuser67000@gmail.com	Admin <span>▼</span>	Active
 Julian Doe	wsuser65000@gmail.com	Viewer <span>▼</span>	Active

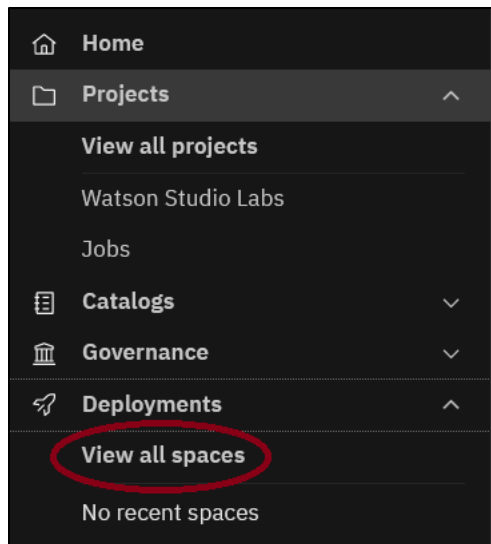
## Create a Deployment Space

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

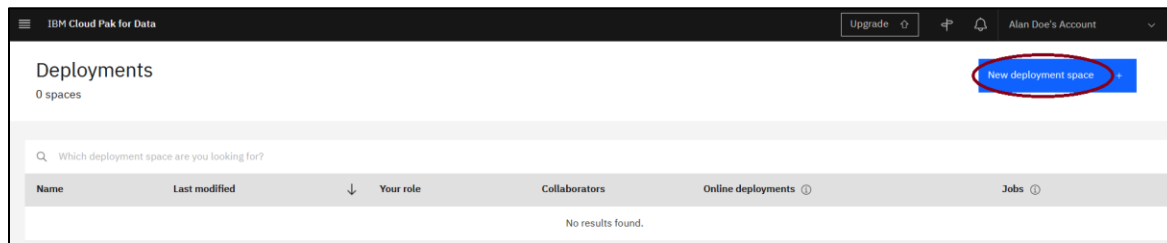
1. Click on the hamburger icon .



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



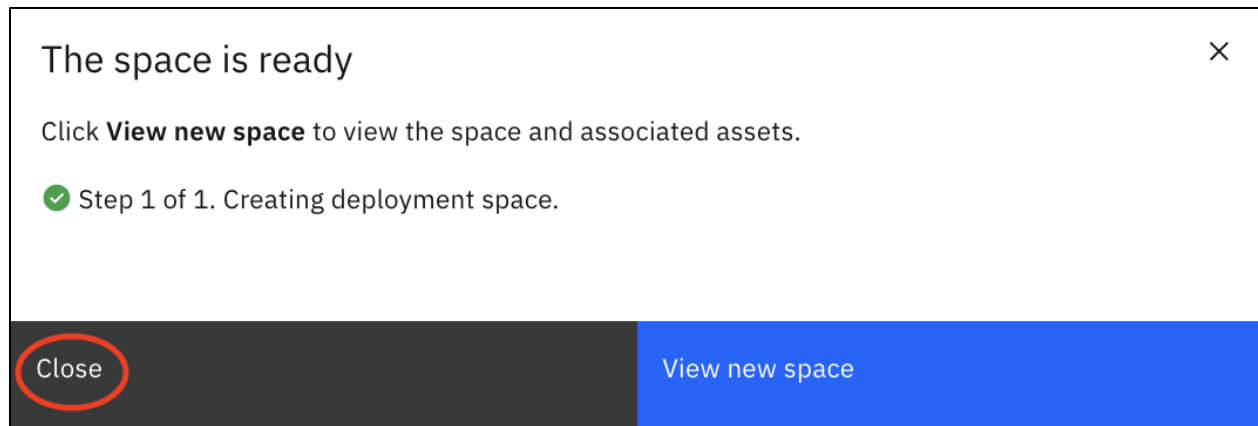
3. Click on **New deployment space**.



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


The screenshot shows the 'Define space details' form. The 'Name' field contains 'Watson Studio Labs'. The 'Description (Optional)' field is empty. The 'Deployment space tags (optional)' section has an 'Add a tag' button. The 'Select storage service' dropdown is set to 'Cloud Object Storage-xx'. The 'Select machine learning service (optional)' dropdown is set to 'WatsonMachineLearning'. The 'Upload space assets (optional)' section has a 'Drop .zip file here or browse your files to upload' button. At the bottom right, there are 'Cancel' and 'Create' buttons, with the 'Create' button circled in red.

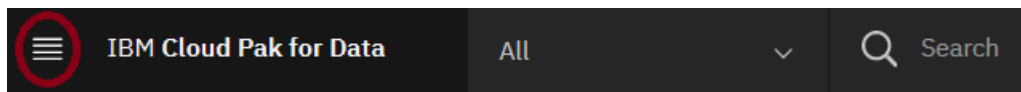
5. Click **Close**.



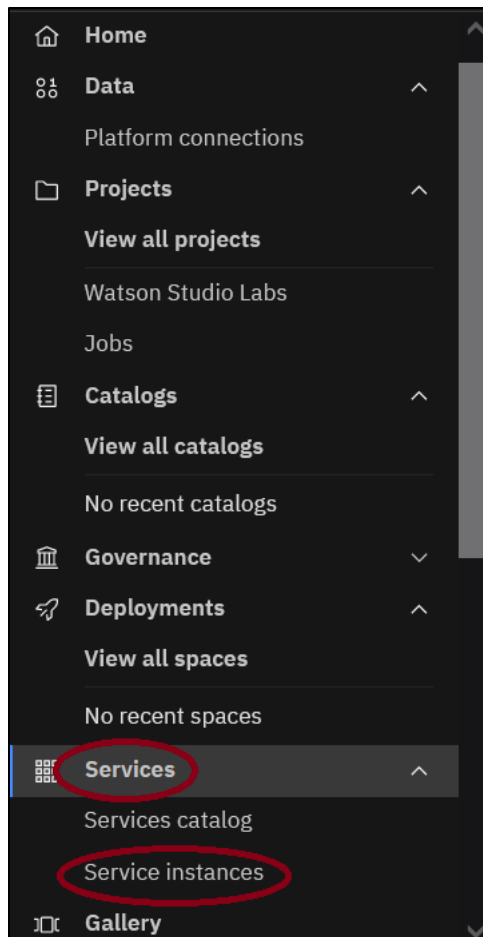
## Provision Watson OpenScale

Newer Cloud Pak for Data accounts come with Watson OpenScale provisioned. In this section, you will check if Watson OpenScale has been provisioned for your account. If not, you will provision a Watson OpenScale service for use in a later lab.

1. Click on the  icon.



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



3. Check if Watson OpenScale is in the list of services.


Service instances

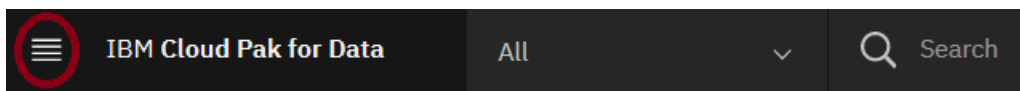
To upgrade a service plan, first [upgrade](#) your IBM Cloud account. Then choose **Upgrade service** or **Manage in IBM Cloud** from the menu in the service's row.

Filter by: Resource Groups 2 x Locations None Product Service plan

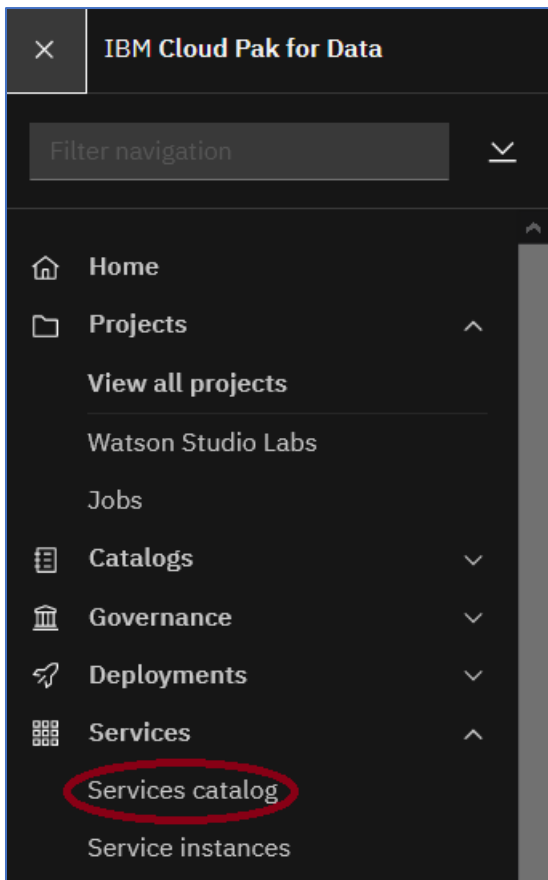
Find service instances Add service +

Name	Group	Location	Product	Plan	Status	
<a href="#">CloudObjectStorage</a>	Default	Global	Cloud Object Storage	Lite	Active	<a href="#">⋮</a>
<a href="#">WatsonMachineLearning</a>	Default	Dallas	Machine Learning	Lite	Active	<a href="#">⋮</a>
<a href="#">KnowledgeCatalog</a>	Default	Dallas	Watson Knowledge Catalog	Lite	Active	<a href="#">⋮</a>
<a href="#">WatsonOpenScale</a>	Default	Dallas	Watson OpenScale	Lite	Active	<a href="#">⋮</a>
<a href="#">WatsonStudio</a>	Default	Dallas	Watson Studio	Lite	Active	<a href="#">⋮</a>

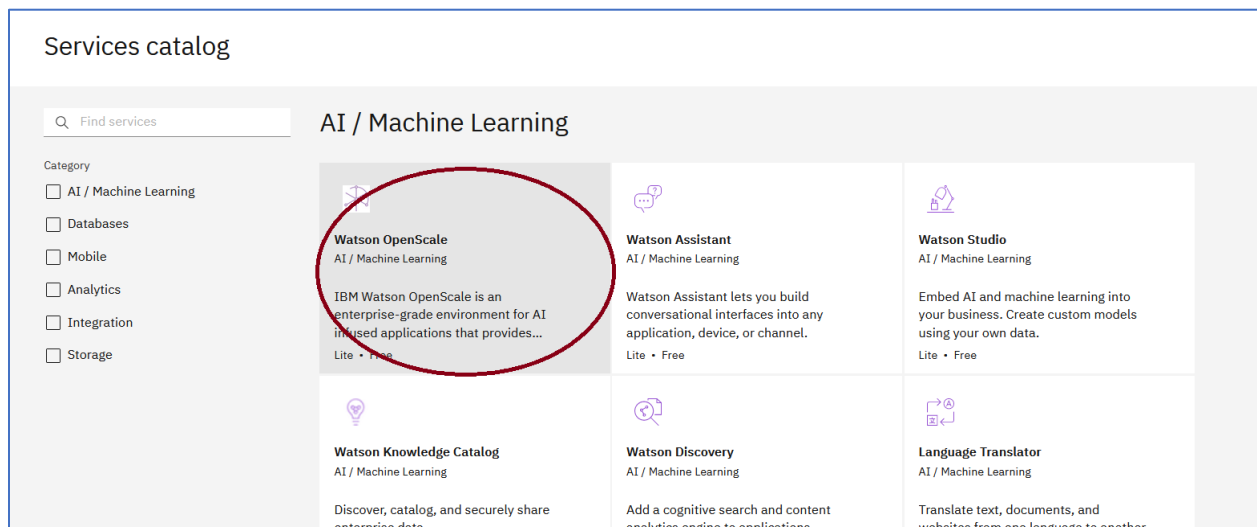
4. If Watson OpenScale is listed, skip to step 9. Otherwise, click on the  icon.



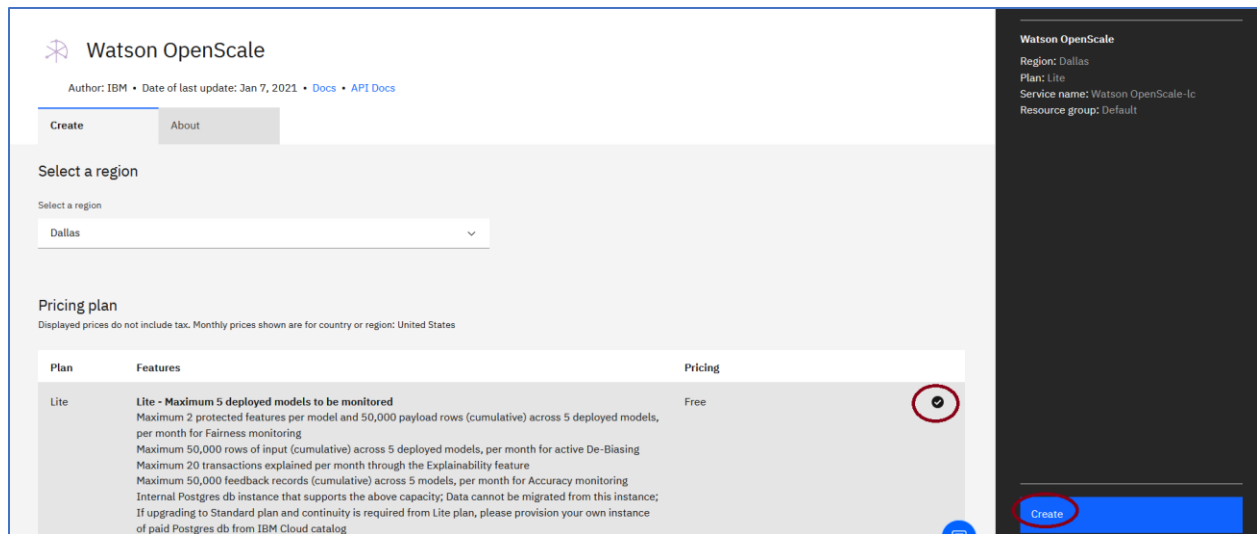
5. Click on **Services**, and then **Service catalog**.



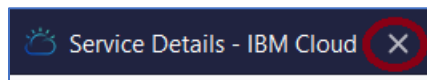
6. Click on **Watson OpenScale**



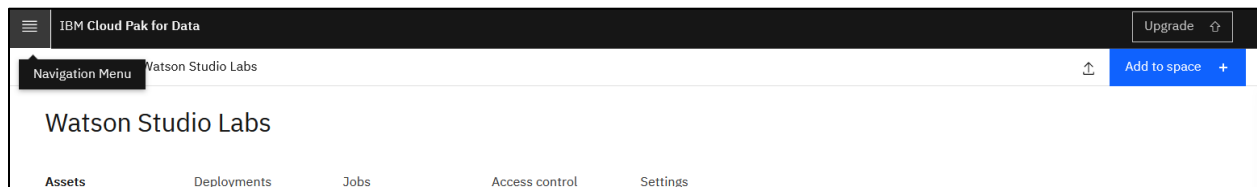
7. Make sure the Lite plan is selected and click **Create**.



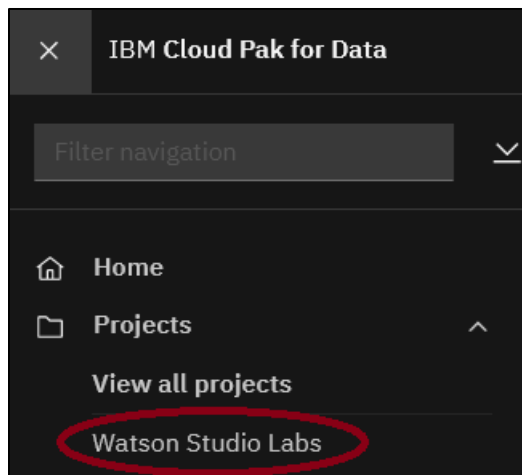
8. You can close the Service Details – IBM Cloud



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



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



**You have completed Lab-1!**

- ✓ Created a project
- ✓ Provisioned object storage instance if needed.

- ✓ Associated an existing Watson Machine Learning service instance with the project or created a new service instance and associated it with the project.
- ✓ Added a collaborator to the project
- ✓ Created a deployment space
- ✓ Provisioned Watson OpenScale if needed.