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 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

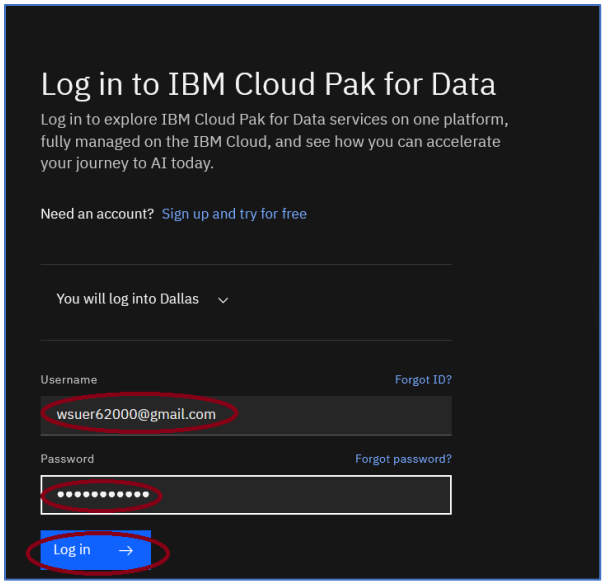
The goal of this lab is to familiarize the user with the Project features of Cloud Pak for Data, and to set up the environment for subsequent labs. Projects are a core component of Cloud Pak for Data. Projects enable you to organize your analytic and data assets in one place. Projects are also the home 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.

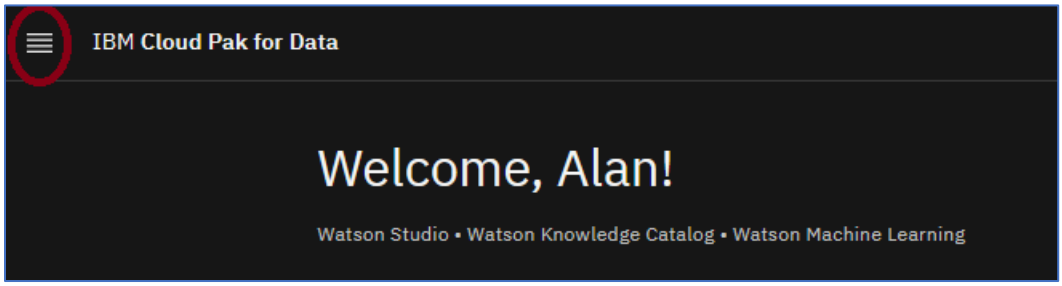
1. Create a project
2. Create an object storage instance and associate it with the project
3. Associate an existing Watson Machine Learning service instance with the project
4. Add a collaborator to the project
5. Create a deployment space
6. Provision Watson OpenScale

Create a Project

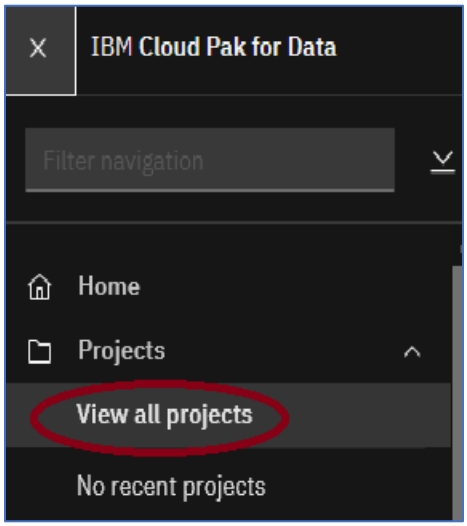
1. If you are not logged into Cloud Pak for Data, log into your Cloud Pak for Data account by typing in the url **dataplatform.cloud.ibm.com** in your Firefox or Chrome browser. Otherwise, skip to step 5.
2. Select the **region,** enter the **Username** and the **Password** and click **Log-In.**



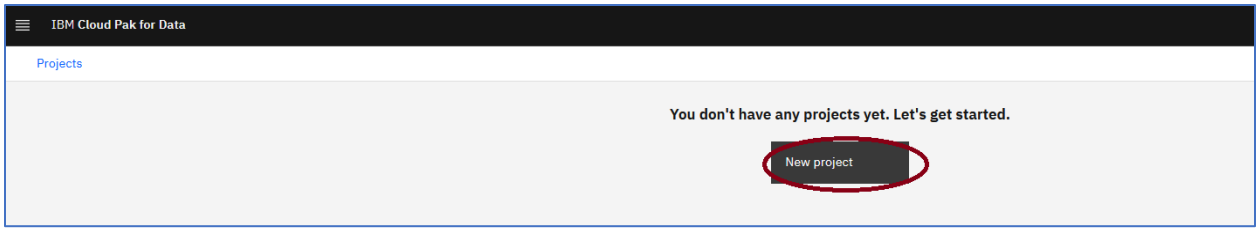
3. Click on the hamburger icon ☰.



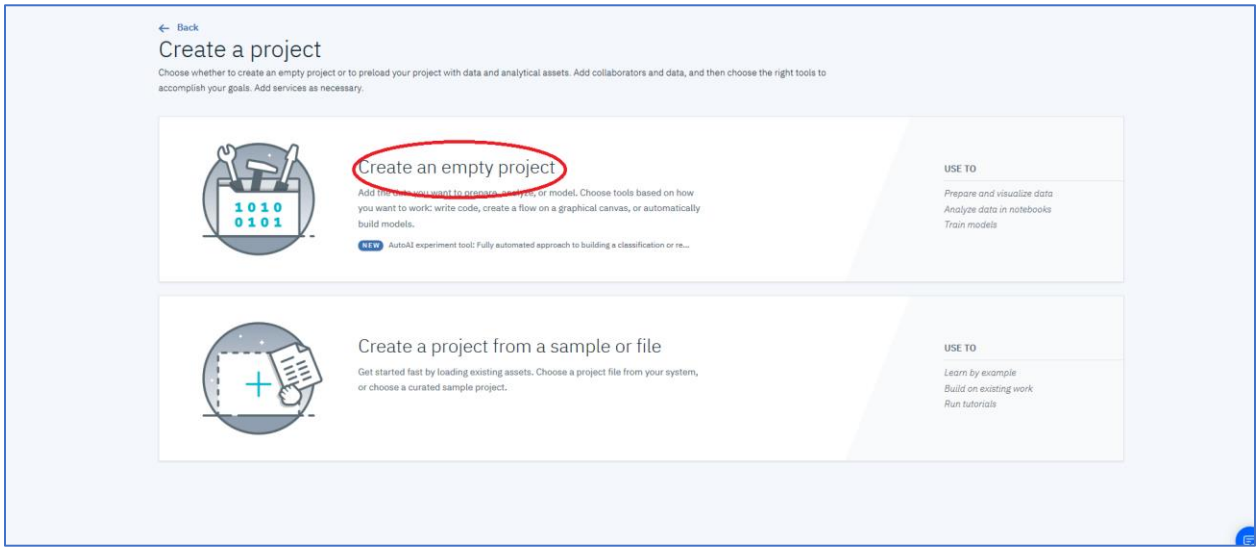
4. Click on **Projects**, and the click on **View All Projects**



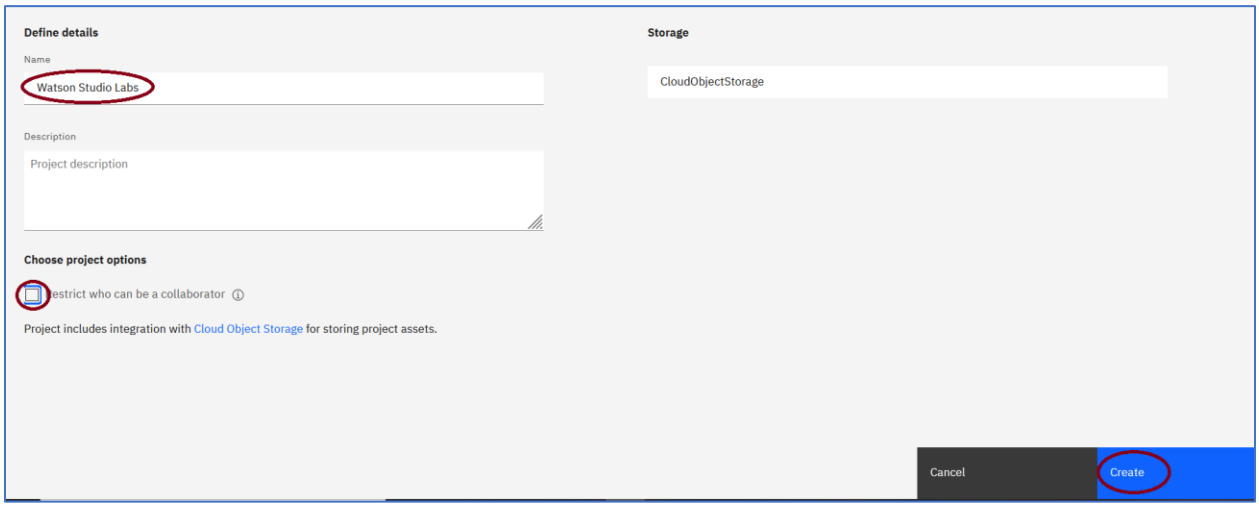
5. Click on **New Project**.



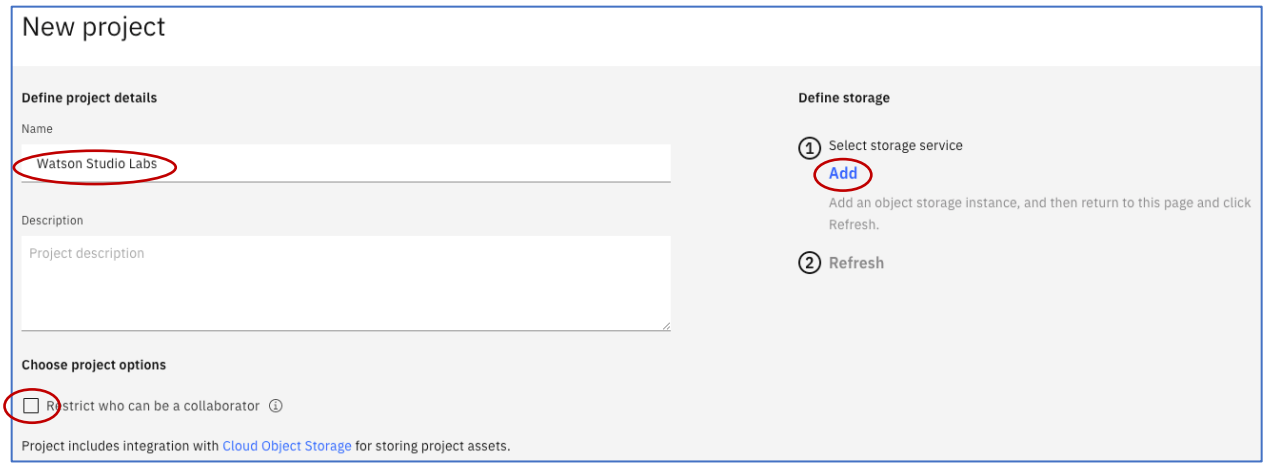
6. Click on **Create an empty project**.



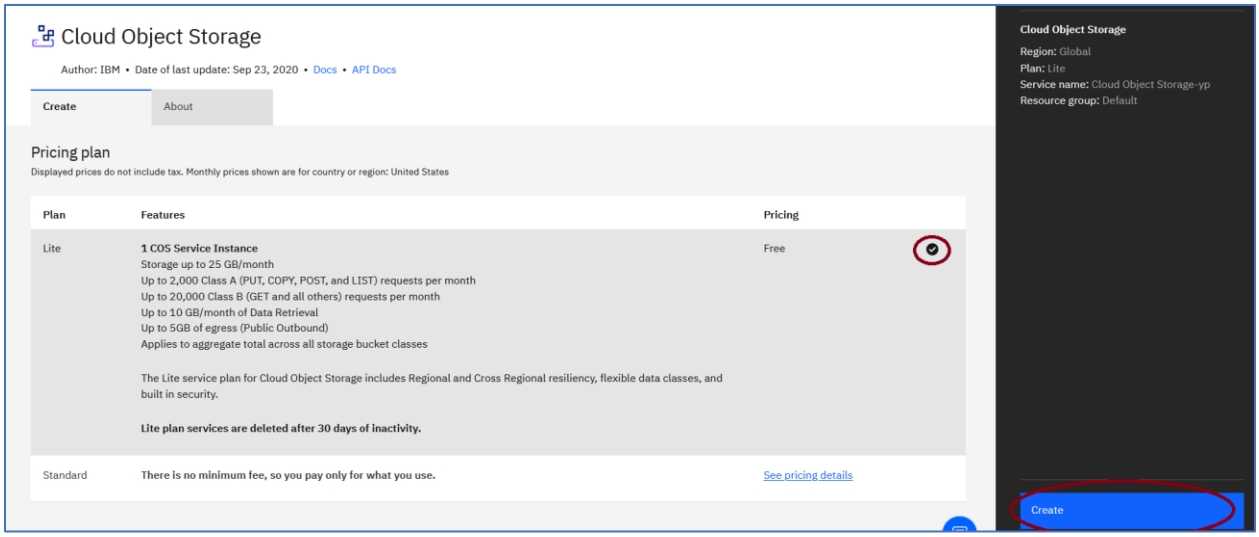
7. Enter "Watson Studio Labs" for the **Name,** optionally enter a **Description,** make sure to uncheck **Restrict who can be a collaborator** (if it's checked) and click **Create**. Note, if you do not have object storage already provisioned, you will see an area marked **Define Storage** and this must be completed before you can click Create. If you need to define object storage, please continue, otherwise go to step 12.



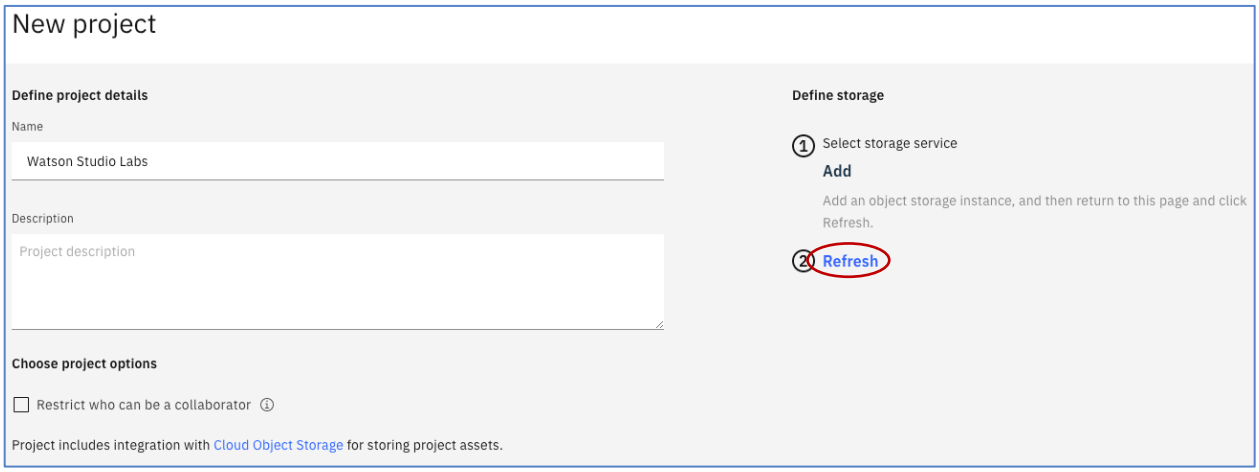
8. In the **Define Storage** area click on **Add** to add an object storage instance.



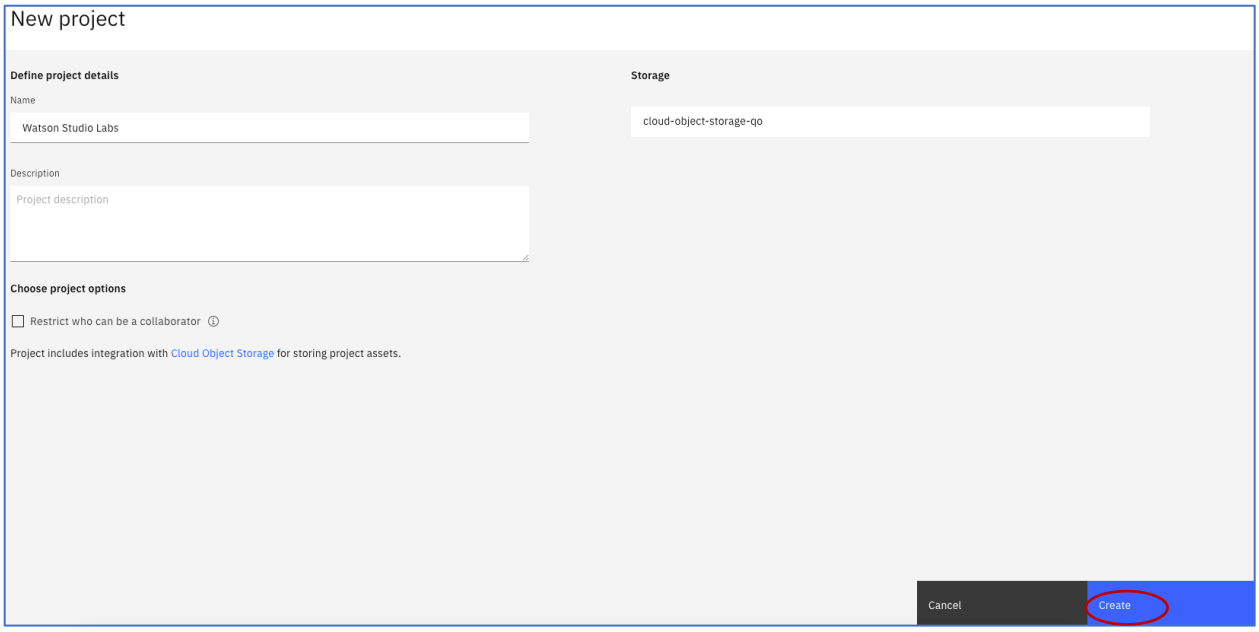
9. Make sure the **Lite** plan is selected**,** and then click on **Create**



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

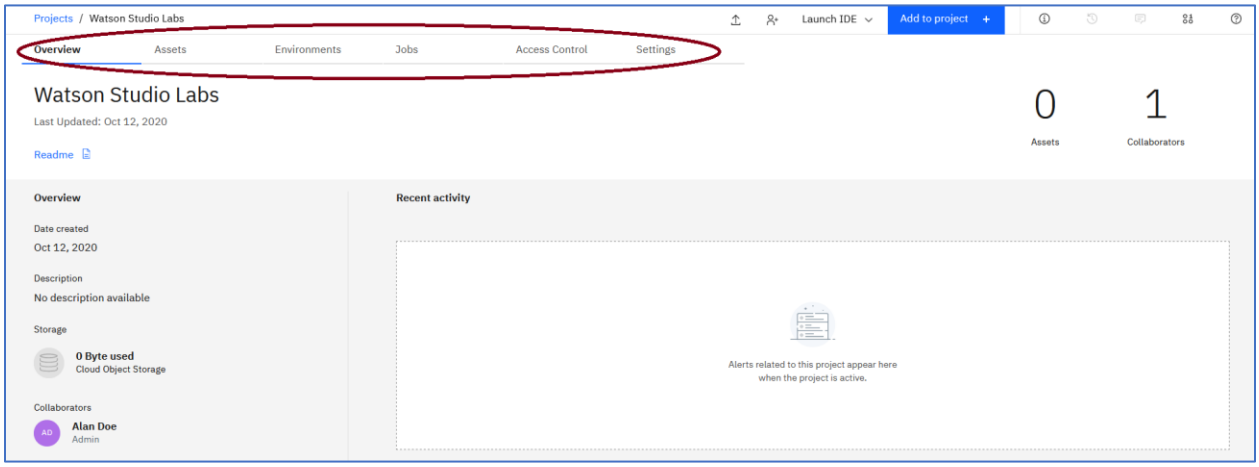


11. Click **Create**.



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.

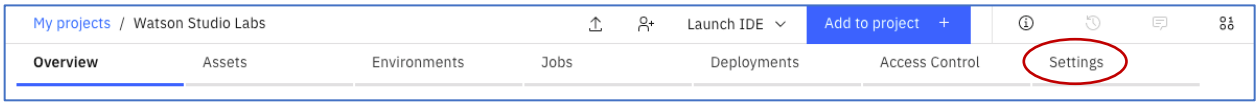
- **a. Assets Page –** Analytics and Data assets can be added to the project from this page.
- **b. Environments Page -** Provides information on the current notebook environments that are defined, lists the active notebook environments currently running, and enables users to create custom notebook environments.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



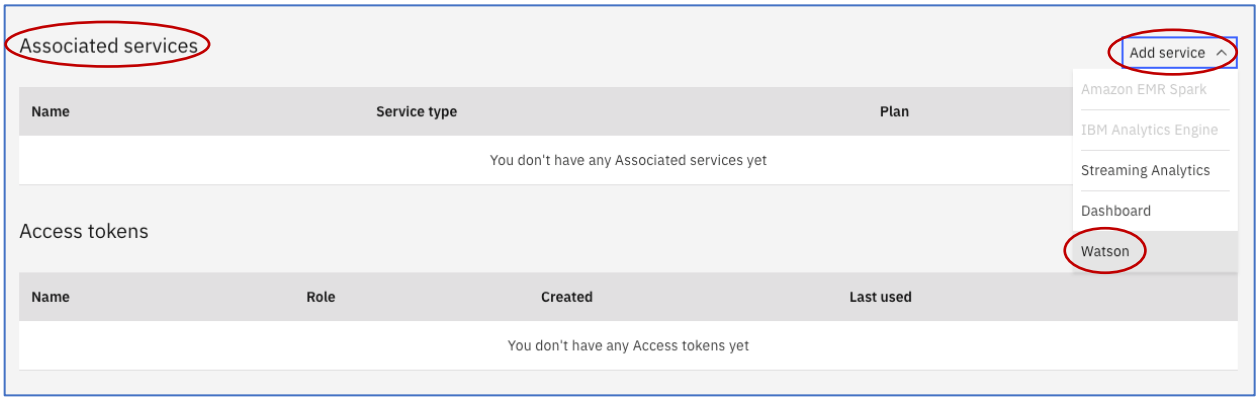
Associate a Watson Machine Learning Service to the Project

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.

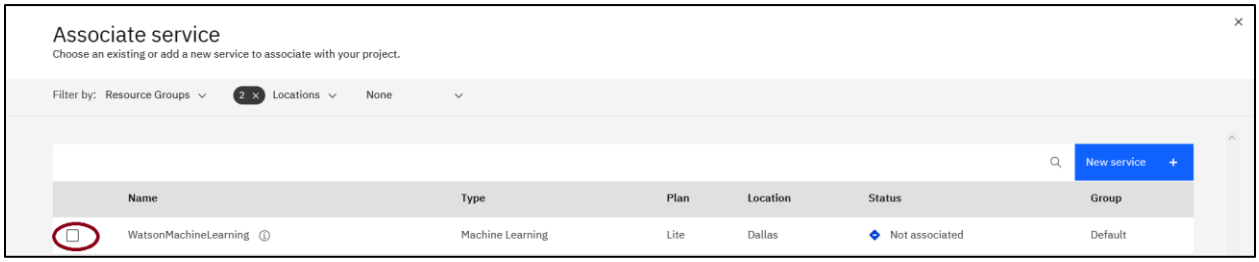
1. Click on **Settings** to navigate to the Project **Settings** page.



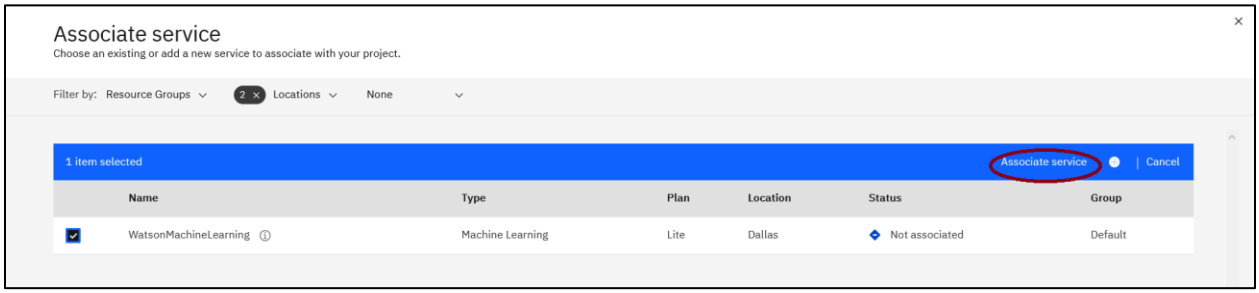
2. Scroll down to **Associated Services,** click on **Add service,** click on **Watson**.



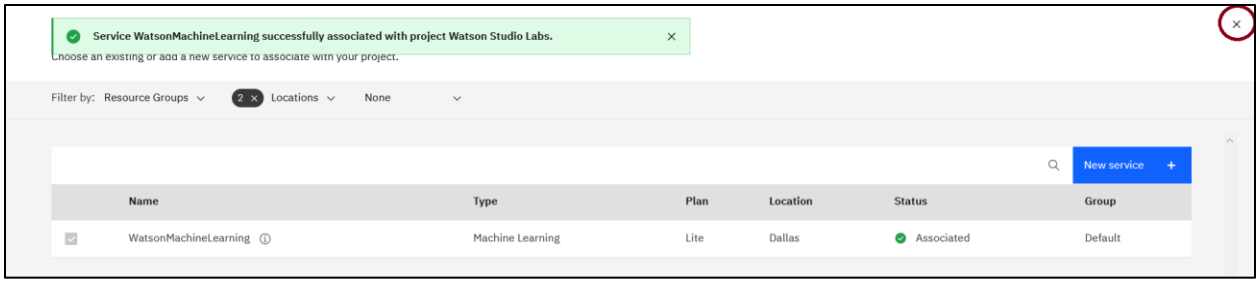
3. Newer Watson Studio accounts come with the WatsonMachineLearning instance already created. For those accounts the WatsonMachineLearning service will be displayed. Click on the checkbox next to WatsonMachineLearning. Otherwise skip to step 6.



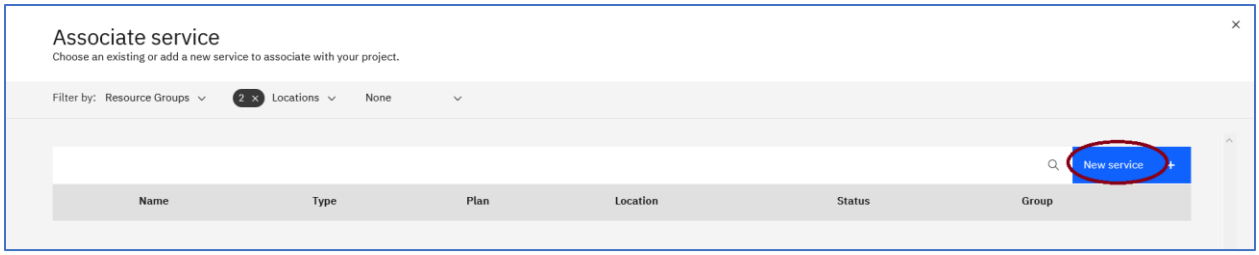
4. Click on **Associate service**.



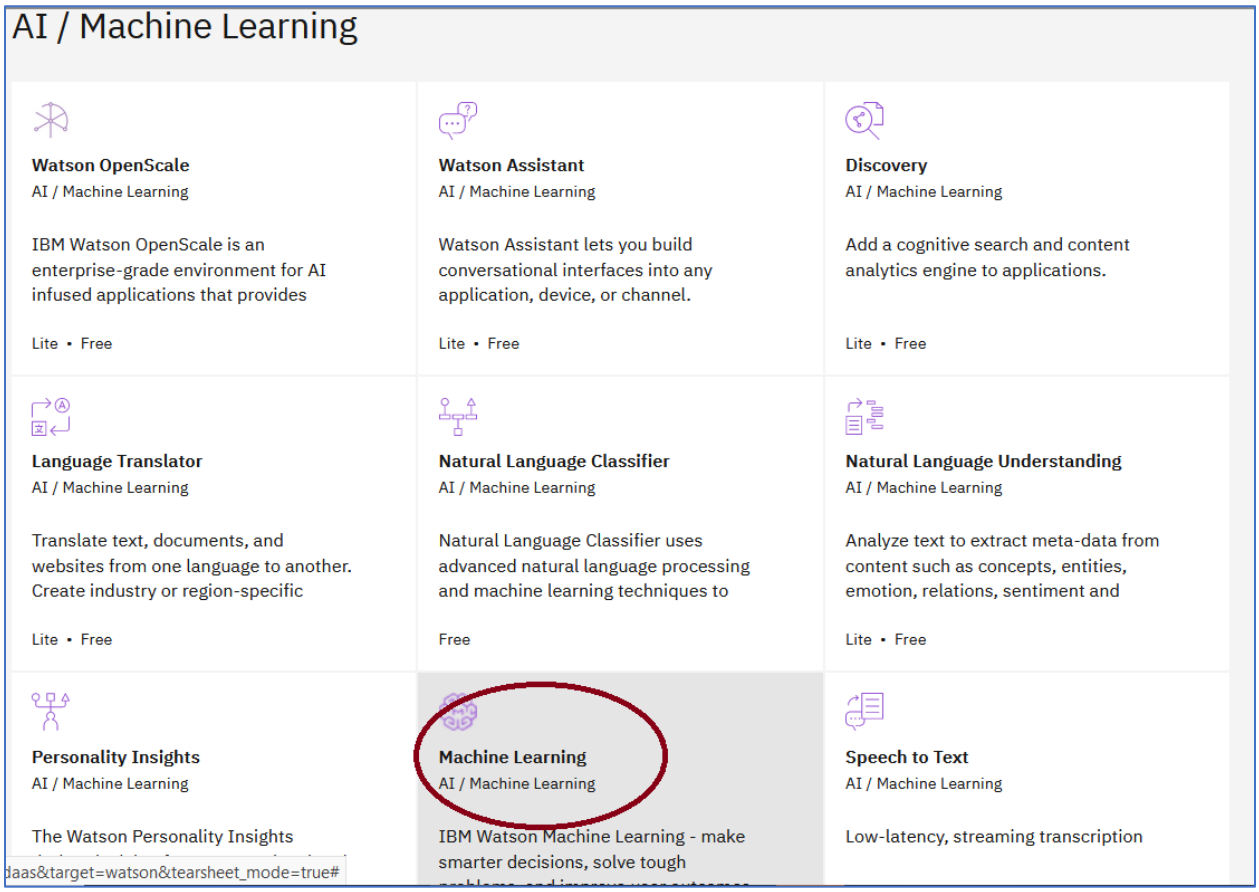
5. The WatsonMachineLearning service is now associated with the project. Click on the close icon ✕ Skip to the next section- **Add a Project Collaborator**.



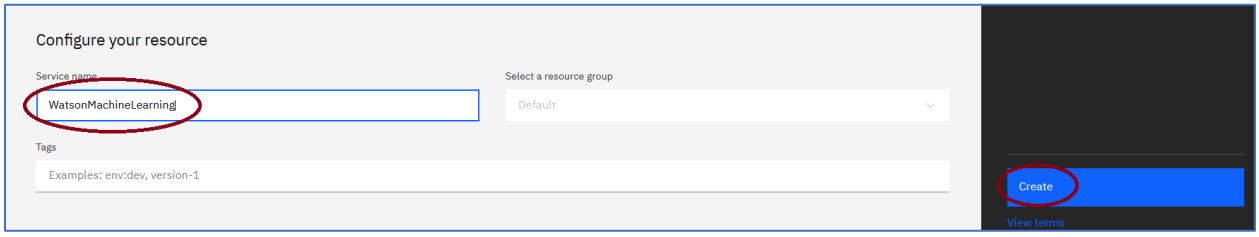
6. The following steps are to be followed if you don't have an existing WatsonMachineLearning service listed, click on **New service**.



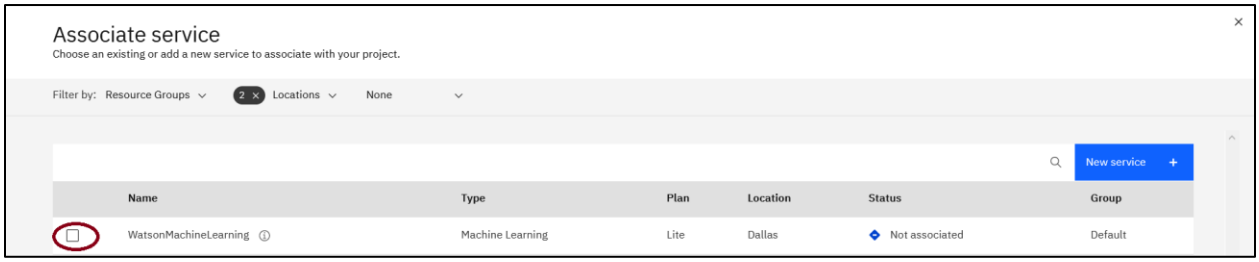
7. Click on the **Machine Learning** tile.



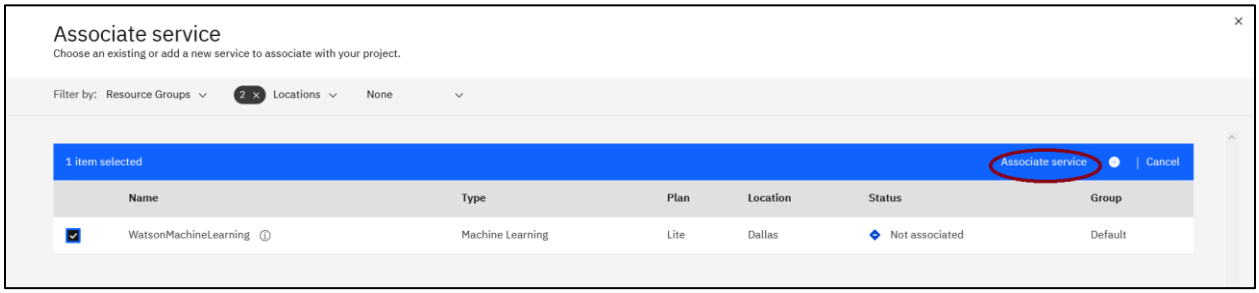
8. Make sure the Lite Plan is selected. Scroll down and change the default name of the Machine Learning service to **WatsonMachineLearning**. Click **Create**.



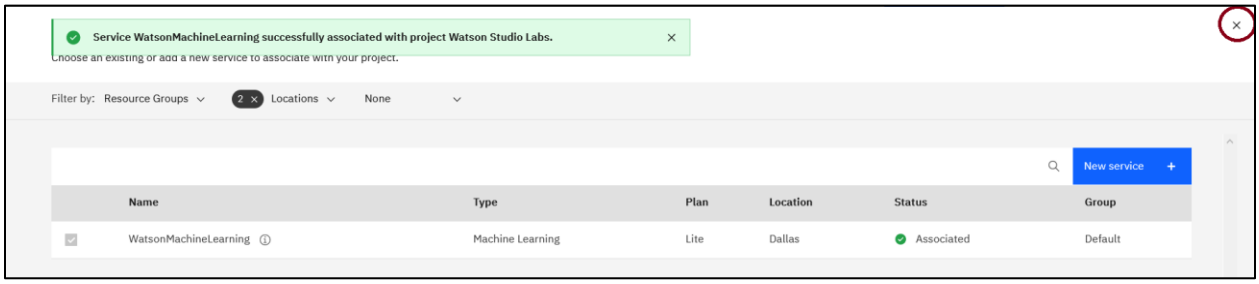
9. Click the check box next to WatsonMachineLearning.



10. Click on **Associate service**.



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



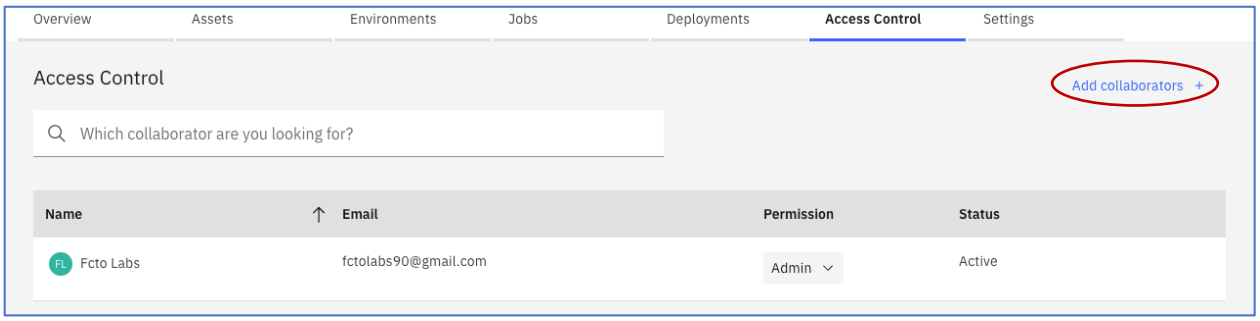
Add a Project Collaborator

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.

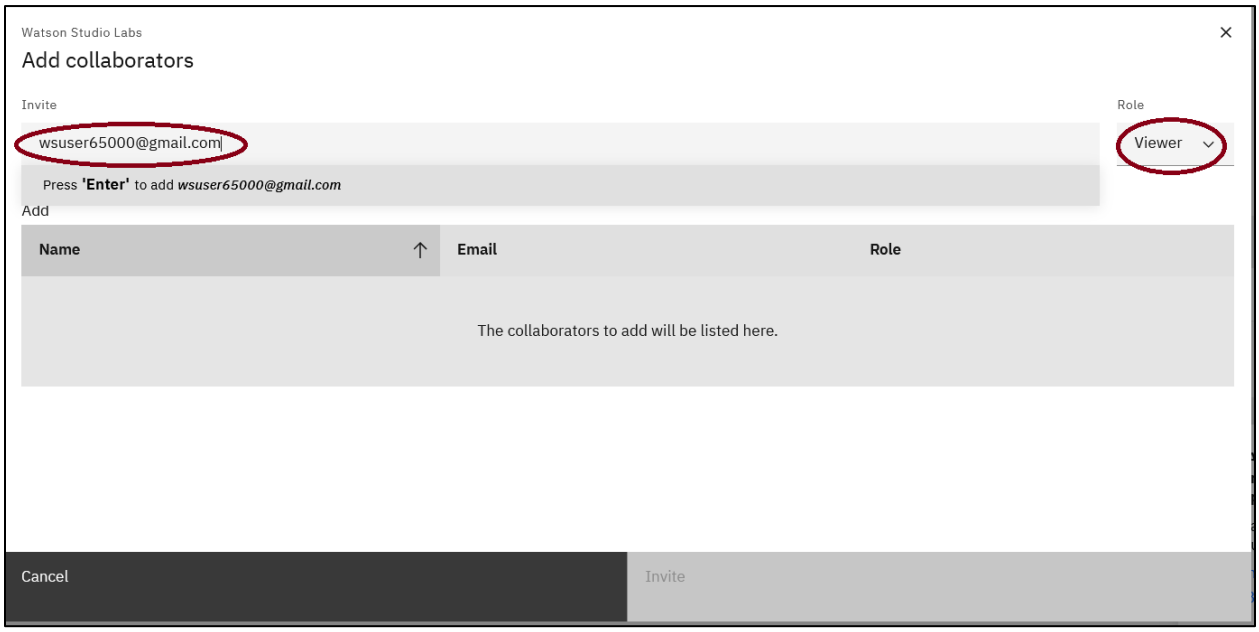
We will add a collaborator with a role of **Viewer.**

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

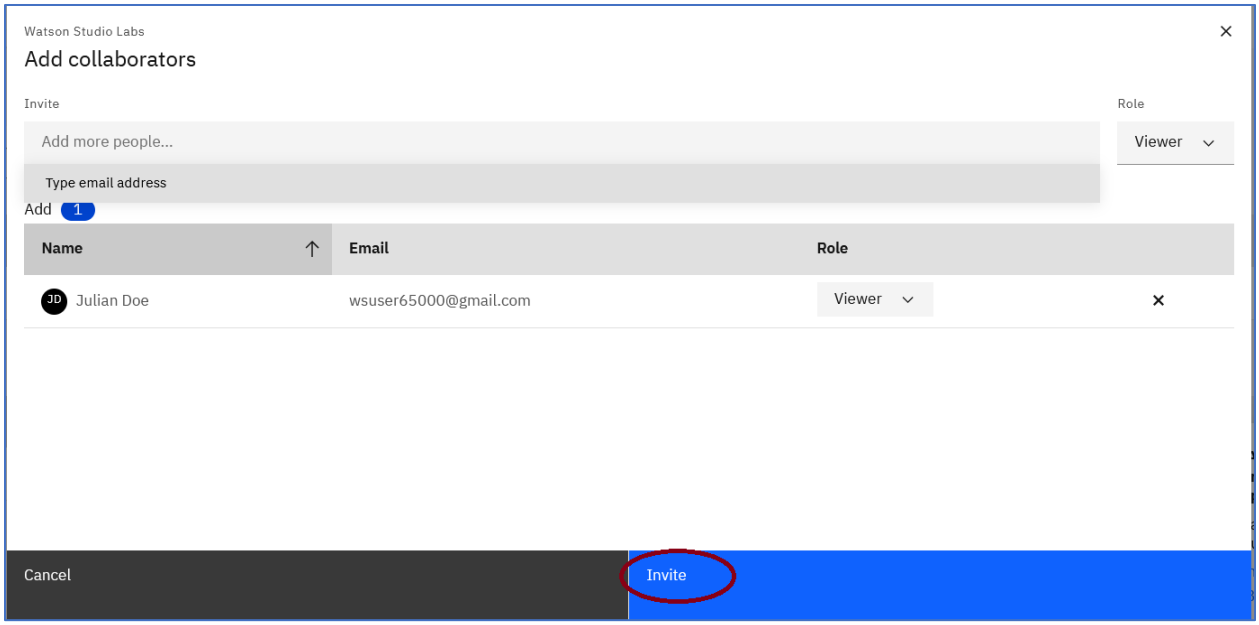
2. Click on **Add collaborators**.



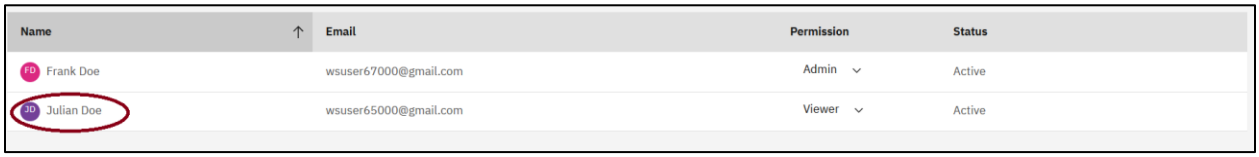
3. For **Invite**, enter **wsuser65000@gmail.com**, select **Viewer** for the **Role**, press the <Enter> key.



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



5. The collaborator is added.

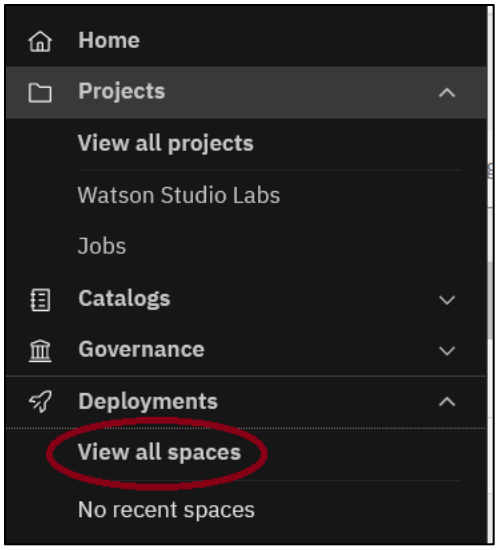


Create a Deployment Space

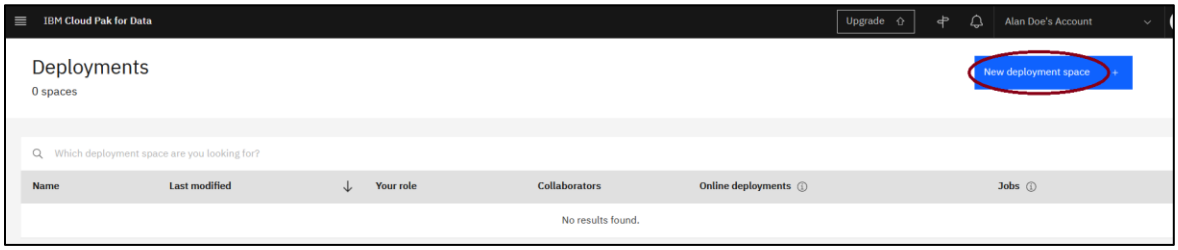
Deployment spaces are used to deploy models and manage deployments. A project is associated with one and only one deployment space. In this section, we will create a deployment space.

1. Click on the hamburger icon .

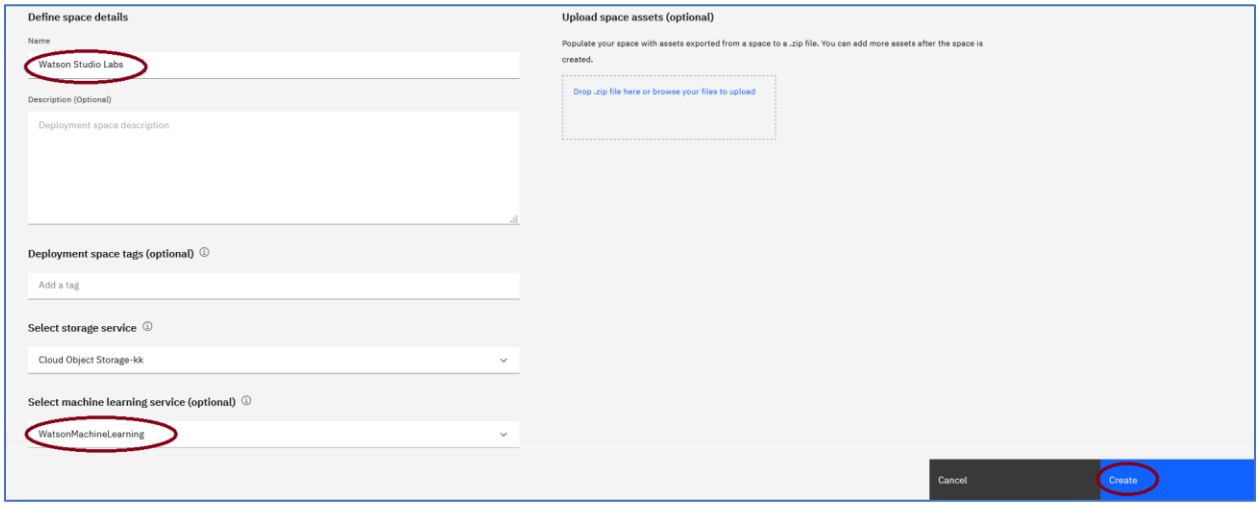
2. Click on **View all spaces** under **Deployments**



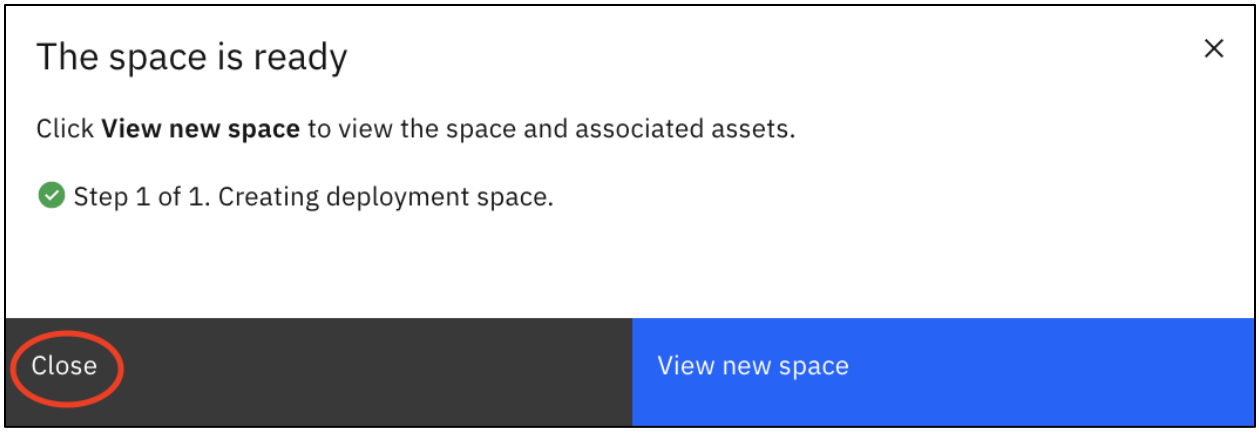
3. Click on **New deployment space**.



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



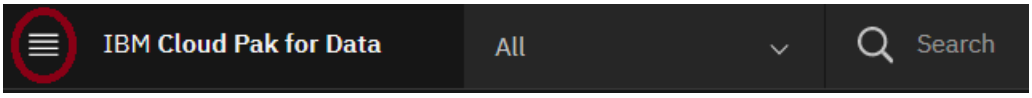
5. Click **Close.**



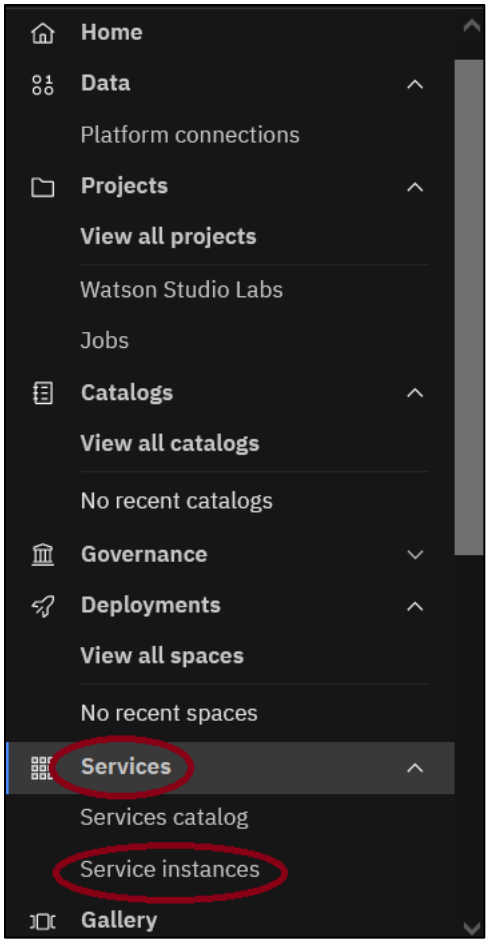
Provision Watson OpenScale

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

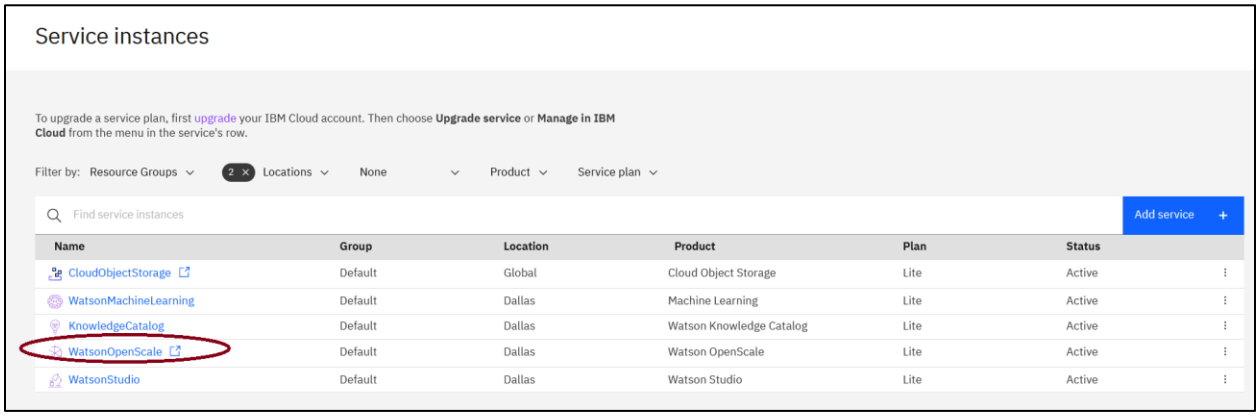
1. Click on the ☰ icon.



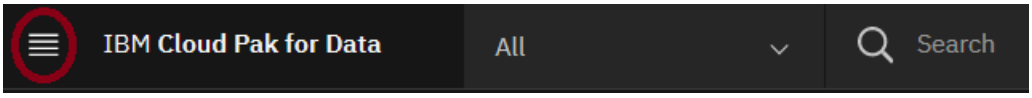
2. Click on **Services** and then **Service instances**.



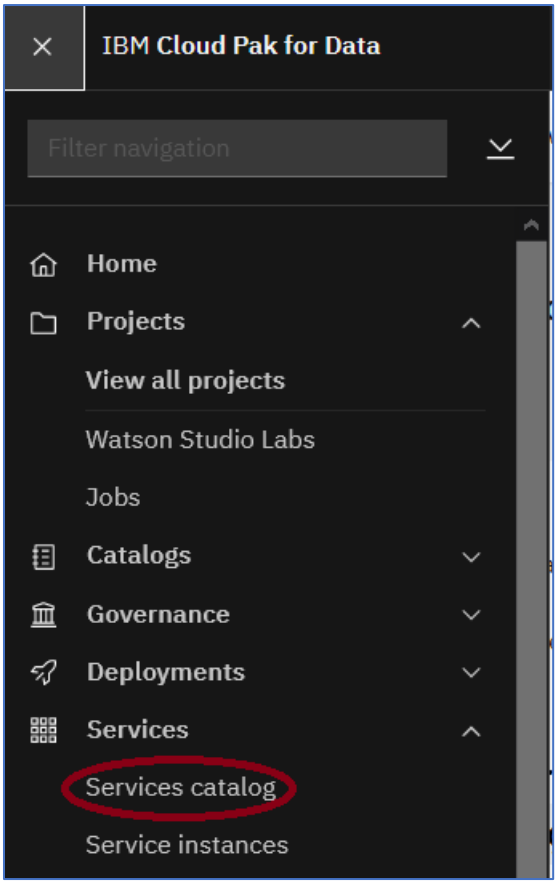
3. Check if Watson OpenScale is in the list of services.



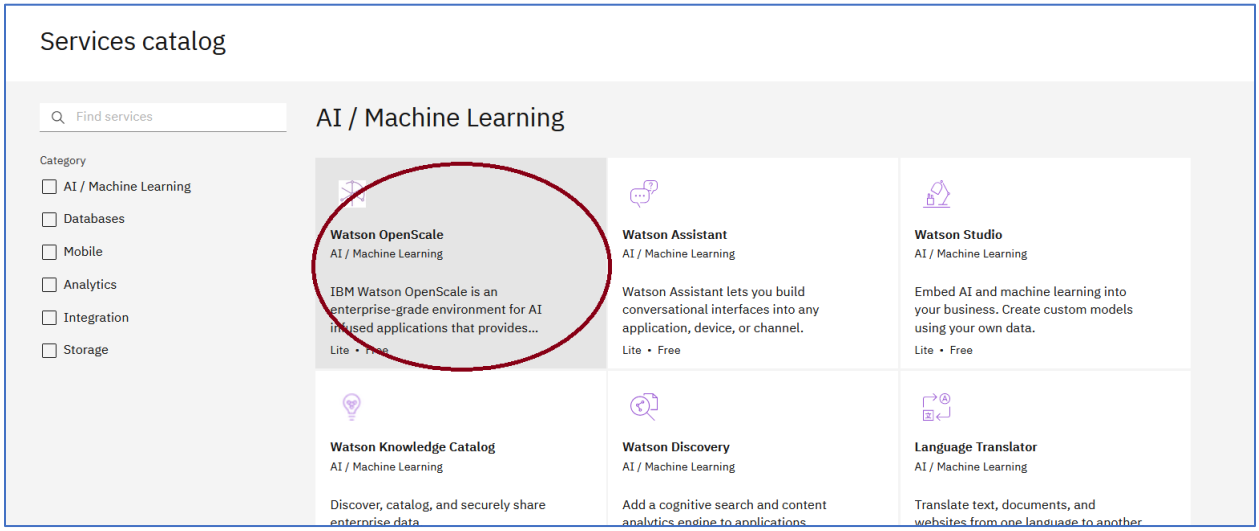
4. If Watson OpenScale is listed, skip to step 9. Otherwise, click on the ☰ icon.



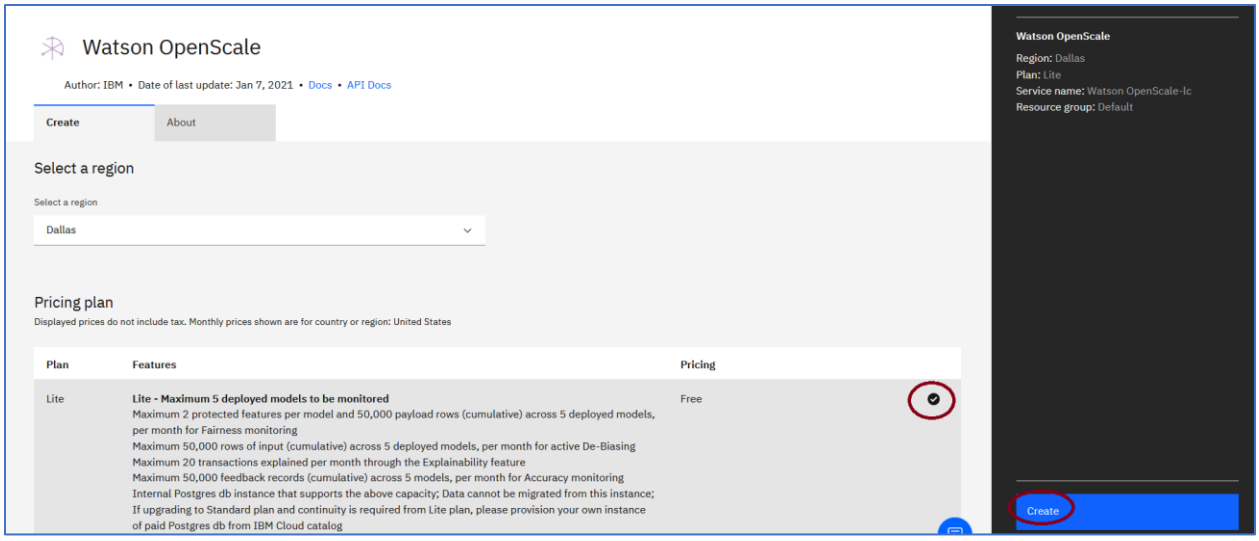
5. Click on **Services**, and then **Service catalog**.



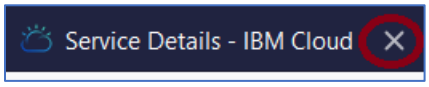
6. Click on **Watson OpenScale**



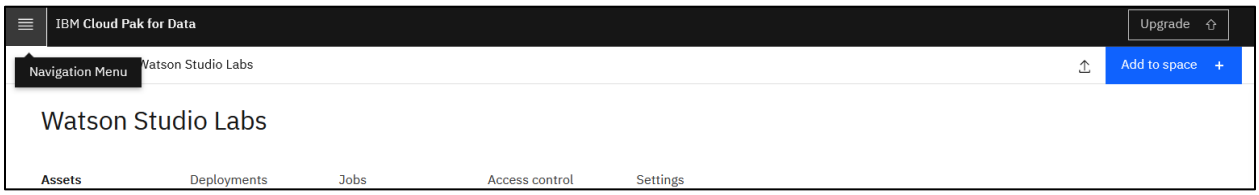
7. Make sure the Lite plan is selected and click **Create**.



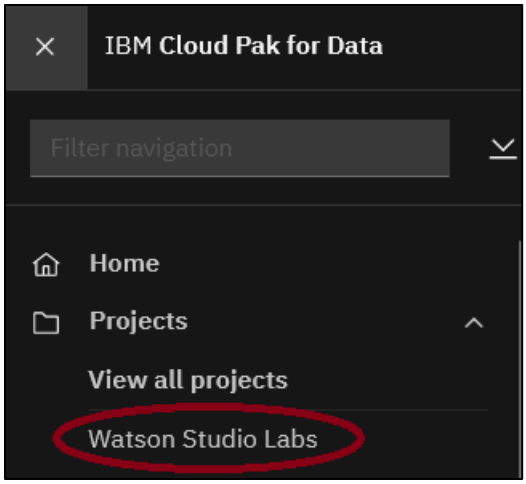
8. You can close the Service Details – IBM Cloud



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.