



Estimated time needed: 40 minutes

## In this lab you will explore Watson Studio

**Objectives** – After completing this lab, you will be able to:

- Use Watson Studio service
- Create project in Watson Studio
- Add an interactive python notebook to a project in Watson Studio

## Pre-requisite

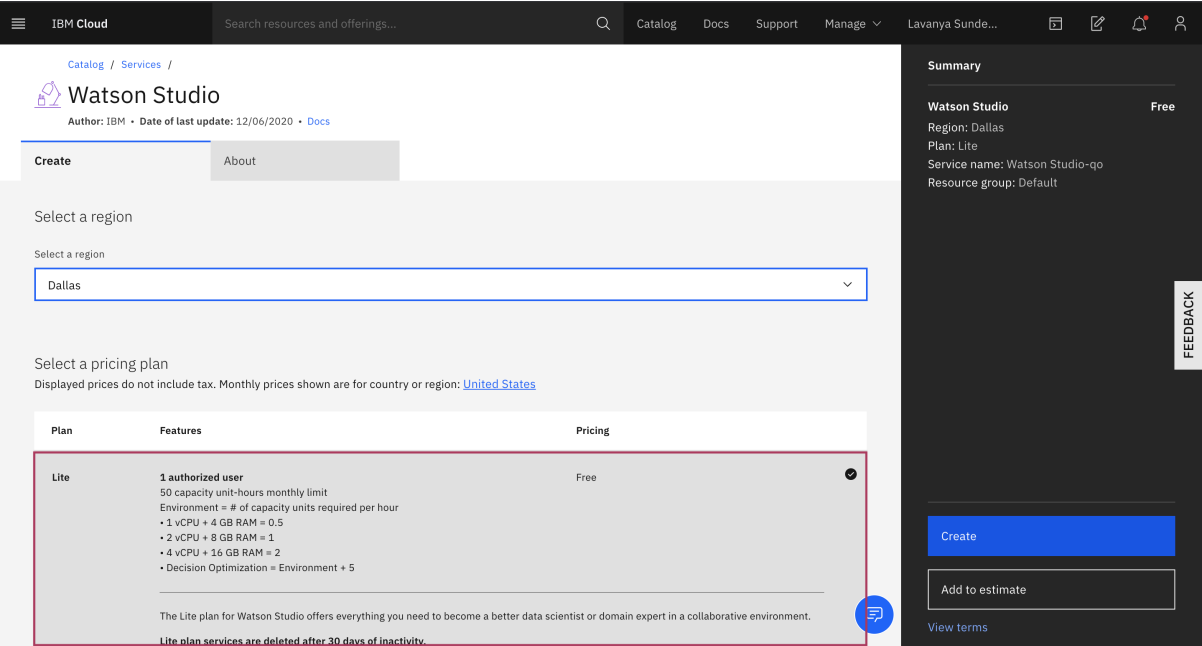
You need an IBM Cloud account to create a project in Watson Studio. If you don't have an account created already, click and open this [link](#) and follow the instructions, to create an IBM Cloud account.

## Exercise - Create a project on Watson Studio

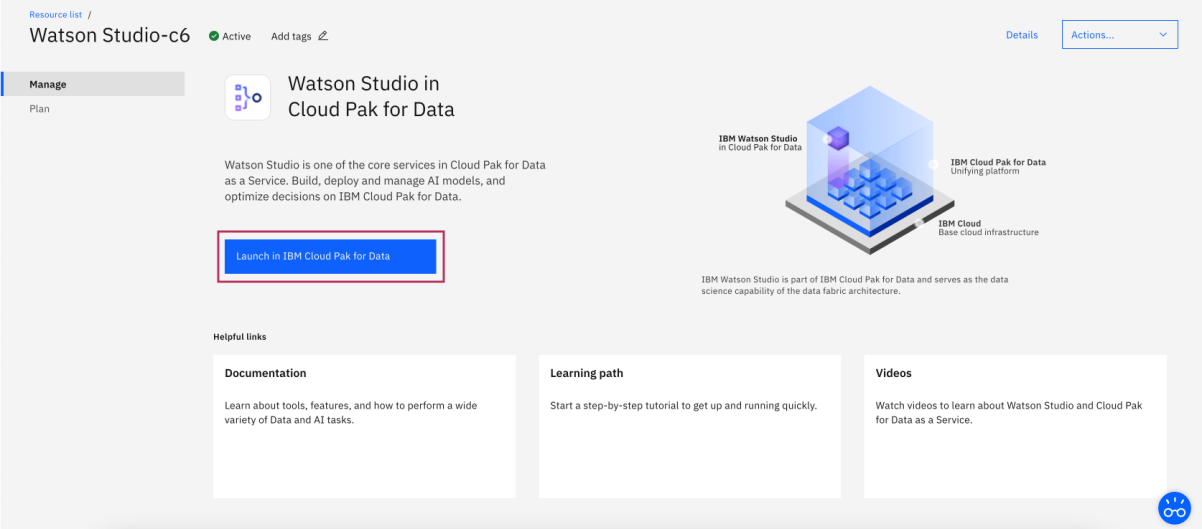
*If you have not created a Watson service before proceed with Task 1, otherwise go to Task 2*

### Task 1: For New Users (with no Watson service):

1. [Click here](#) to go to the IBM Cloud Watson Studio page. To create a Watson service, choose a plan you want to use, click **Create**. In the image below, the *Lite* plan has been chosen.



2. On the Watson Studio page, click on **Launch in IBM Cloud Pak for Data**.



### Task 2: For Existing Users (who already have Watson Service):

1. Go to the IBM Cloud Dashboard and click Services.



2. When you click on Services, all your existing services will be shown in the list. Click the Watson Studio service you created:

IBM Cloud

Search resources and offerings...

Catalog

Docs

Support

Manage

Lavanya Sunde...

Resource list

Create resource +

Name	Group	Location	Offering	Status	Tags
Filter by name or IP address... Filter by group or org... Filter... Filter... Filter... Filter...					
Devices (0)					
VPC Infrastructure (0)					
Clusters (0)					
Cloud Foundry apps (0)					
Cloud Foundry services (0)					
Services (5)					
Analytics Engine-Bh	Default	London	Analytics Engine	Active	
Discovery-h0	Default	Dallas	Discovery	Active	
Machine Learning-6r	Default	Dallas	Machine Learning	Active	
Visual Recognition-wm	Default	Dallas	Visual Recognition	Active	
Watson Studio-qo	Default	Dallas	Watson Studio	Active	
Storage (1)					
Network (0)					
Cloud Foundry enterprise environments (0)					

FEEDBACK

3. On the Watson Studio page, click on **Launch in IBM Cloud Pak for Data**.

Resource list /

Watson Studio-c6

Active

Add tags

Details

Actions...

Manage

Plan

Watson Studio in Cloud Pak for Data

Watson Studio is one of the core services in Cloud Pak for Data as a Service. Build, deploy and manage AI models, and optimize decisions on IBM Cloud Pak for Data.

Launch in IBM Cloud Pak for Data

IBM Watson Studio in Cloud Pak for Data

IBM Cloud Pak for Data Unifying platform

IBM Cloud Base cloud infrastructure

IBM Watson Studio is part of IBM Cloud Pak for Data and serves as the data science 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 and Cloud Pak for Data as a Service.

### Task 3: Creating a Project

1. Click on **Create a project**

IBM Cloud Pak for Data

Upgrade

Lavanya Sunderarajan's Ac...

15

Welcome Lavanya!

Watson Studio • Watson Machine Learning

Learn by example

Solve a specific business problem with a comprehensive tutorial in a sample project.

Take a guided tutorial

Start working

Create a project, add your team, and start preparing, analyzing, or modelling data.

Create a project

Add features

Create services with the tools, data, or other capabilities that you need.

Create a service

Quick navigation

Projects

Support

Documentation

FAQ

What's new

Give feedback

Relaunch tour panel

You can launch the tour panel any time from the Support menu

Overview

Recent projects

AssessTermDepositInterest

Jun 24, 2020 03:59 PM

foodClassGenI

Jun 23, 2020 04:44 PM

myclass1

Jun 23, 2020 04:13 PM

New in gallery

Notifications

No notifications

You will see your most recent notifications here.

Your services

Watson Studio-qo

Watson Studio

Today at 01:44 PM

Machine Learning-6r

Machine Learning

Jun 24, 2020 03:05 PM

Visual Recognition-wm

Visual Recognition

Jun 23, 2020 04:19 PM

cloud-object-storage-iv

Cloud Object Storage

Jun 23, 2020 04:12 PM

Discovery-h0

Discovery

May 29, 2020 10:17 AM

2. On the Create a project page, click **Create an empty project**

Back

Create a project

Choose whether to create an empty project or to preload your project with data and analytical assets. Add collaborators and data, and then choose the right tools to accomplish your goals. Add services as necessary.

Create an empty project

Add the data you want to prepare, analyze, or model. Choose tools based on how you want to work: write code, create a flow on a graphical canvas, or automatically build models.

AutoAI experiment tool: Fully automated approach to building a classification or reg...

USE TO

Prepare and visualize data

Analyze data in notebooks

Train models

Create a project from a sample or file

Get started fast by loading existing assets. Choose a project file from your system, or choose a curated sample project.

USE TO

Learn by example

Build on existing work

Run tutorials

3. Provide a **Project Name** and **Description**, as shown below:

New project

Define project details

Name

Python Basics for Data Science Project

Description

This is the Python Basics for Data Science Project.

Choose project options

☐

 Restrict who can be a collaborator ⓘ

Project will include 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

Cancel

Create

4. You must also create storage for the project. Click **Add**

New project

Define project details

Name

Project name

Description

Project description

Choose project options

☐

 Restrict who can be a collaborator ⓘ

Project will include 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

5. On the Cloud Object Storage page, scroll down and then click **Create**.

IBM Watson Studio

Upgrade ⓘ

🔔

IBM Watson Account

👤

Cloud Object Storage

Existing

New

Cloud Object Storage

IBM Cloud Object Storage is a highly scalable cloud storage service, designed for high durability, resiliency and security. Store, manage and access your data via our self-service portal and RESTful APIs. Connect applications directly to Cloud Object Storage use other IBM Cloud Services with your data.

Features

Storage for the IBM Cloud

IBM Cloud Object Storage provides unstructured data storage for cloud applications. Libraries and SDKs support a common set of S3 API functions for connecting new applications to scalable cloud storage and integrating your data into other services on the IBM Cloud Platform as well as IBM Watson services. IBM Cloud Object Storage is available with Regional, Cross Region and single site resiliency options worldwide.

Built-in Aspera high-speed transfer

With IBM Cloud Object Storage Aspera high-speed data transfer, you can improve data transfer performance by quickly transferring data over long distances, and under various network conditions. It is natively integrated into Cloud Object Storage and there is no additional cost for uploading data.

Storage Classes and Archive Policy

Choose storage classes based on your usage patterns for active, less-active, and cold workloads with Standard, Vault, and Cold Vault respectively. Use Flex class for dynamic data access with usage patterns that are hard to predict. For rarely used data that requires long-term retention, simply set an Archive policy with our existing storage-Class tiers allowing you to reduce costs even further with our lowest priced Archive storage.

Access and Key Management

IBM Identity and Access Management (IAM) policies allow for granular access control at the bucket level using role-based policies. Key Protect support allows customers to have their own managed encryption keys for higher level data security.

Pricing Plan: Monthly Process shown above reflect the: United States

PLAN	FEATURES	PRICING
<div><input checked="" type="radio"/> Lite</div>	<div><div>1 COS Service Instance</div><div>Storage up to 25 GB/mo.</div><div>Up to 20,000 GET requests/mo.</div><div>Up to 2,000 PUT requests/mo.</div><div>Up to Data Retrieval 10 GB/mo.</div><div>Up to 5GB Public Outbound</div><div>Applies to aggregate total across all storage bucket classes</div></div>	Free
<div><input type="radio"/> Standard</div>	<div><div>There is no minimum fee, so you pay only for what you use.</div></div>	Expand each section to view details

Cancel

Create

🔒

6. In the Confirm Creation box, click **Confirm**.

https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBMDeveloperSkillsNetwork-PY0101EN-SkillsNetwork/labs/Module 4/PY0101EN-4-Lab-Loading Data and Viewing Data.md.html?origin=www.coursera.org

3/6



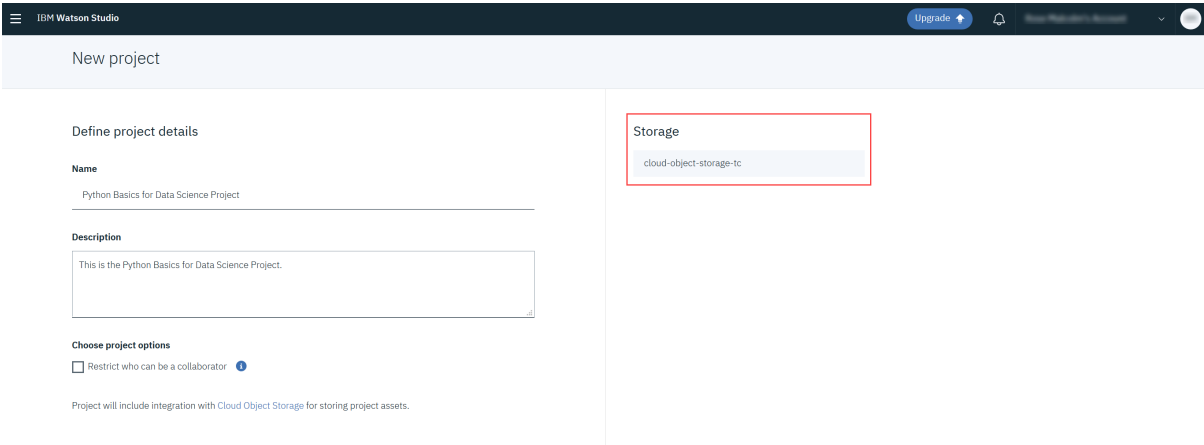
Lite 

Default 

cloud-object-storage-ai

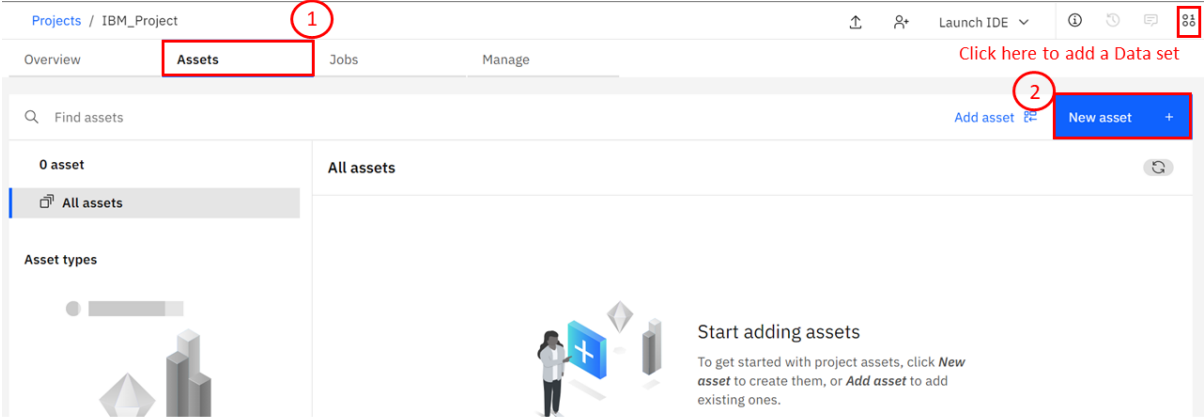


7. On the New project page, note that the storage has been added, and then click Create.

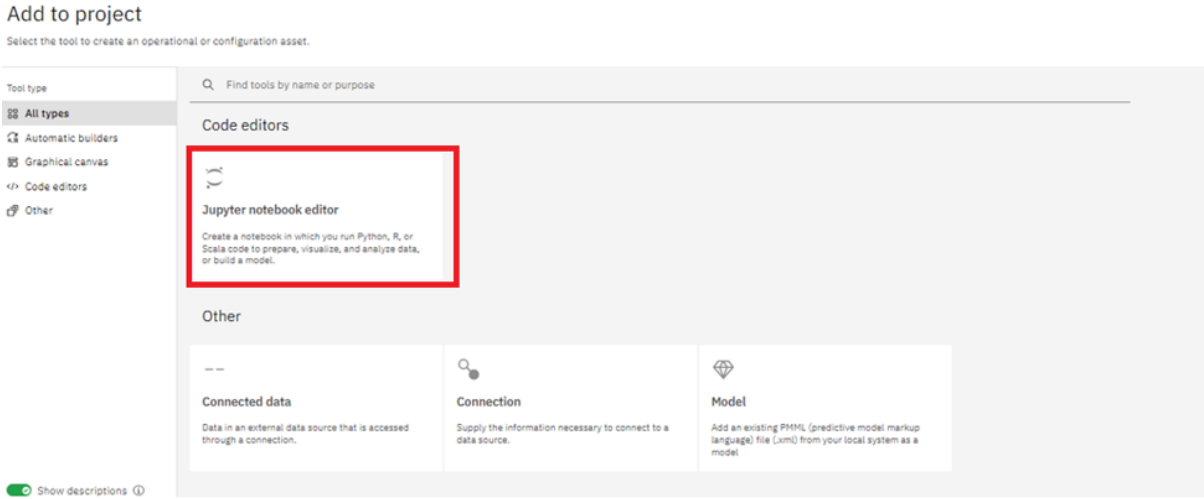


## Task4: Adding a Notebook to the Project:

1. You need to add a Notebook to your project. Click on **Assets > New asset.**



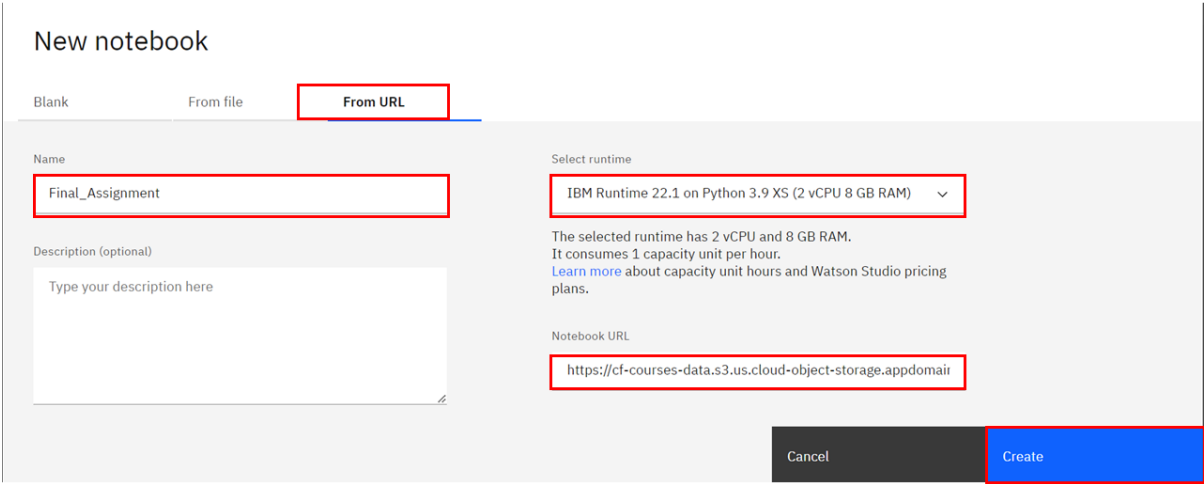
2. Scroll down and select **Jupyter Notebook Editor**:



3. On the New Notebook page, enter a name for the notebook, and then click **From URL**.

Copy this [link](#).

4. Paste it into the **Notebook URL** box, and then click **Create Notebook**.



You will see this Notebook:



### Introduction to Pandas in Python

Estaimted time needed: 15 minutes

#### Objectives

After compiling this lab you will be able to:

- Use Pandas to access and view data

#### Table of Contents

- [About the Dataset](#)
- [Introduction of Pandas](#)
- [Viewing Data and Accessing Data](#)
- [Quiz on DataFrame](#)

Estimated time needed: 15 min

# Author(s)

Joseph Santarcangelo

Other Contributor(s)

Lavanya

Changelog

Date	Version	Changed by	Change Description
2022-04-04	2.3	Malika	Updated screenshot
2022-02-22	2.2	Hema	Updated screenshots
2020-11-18	2.1	Malika Singla	Updated the screenshot
2020-08-25	2.0	Lavanya	Migrated Lab to Markdown and added to course repo in GitLab

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