



Effort: 20 min

In this lab, you will import a notebook in Watson Studio and perform the Classification

## Objectives

After completing this lab, you will be able to:

- Import a Notebook in Watson Studio
- Solve Classification Problem

## IBM Watson Setup

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

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

For this project, you will use your IBM Watson Studio account from the previous chapter.

Go to the IBM Cloud Watson Studio page:

[Click here](#)

You will see the screen in the figure below. Click the icon in the red box:

IBM Cloud

Search resources and offerings...

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Docs

Support

Manage

IBM Cloud Account

Watson Studio

LiteIBMServiceIAM-enabled

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Author: IBM • Date of last update: 07/18/2019

CreateAbout

Select a region

Dallas

Select a pricing plan

Monthly prices shown are for country or region: [United States](#)

| PLAN              | FEATURES   | PRICING  |
|-------------------|--|--|
| <div>✓</div> Lite | <b>1 authorized user</b><br>50 capacity unit-hours monthly limit<br>1 free small compute environment with 1 vCPU and 4 GB RAM (does not require capacity unit-hours)   | Free   |
| Standard v1       | <b>1 authorized user + unlimited viewer collaborators</b><br>50 capacity unit-hours included monthly (additional capacity available)<br>Unlimited elastic compute environments<br>Capacity Type: 1 vCPU and 4 GB RAM = 0.5 capacity units required per hour<br>Capacity Type: 2 vCPU and 8 GB RAM = 1 capacity units required per hour<br>Capacity Type: 3 vCPU and 12 GB RAM = 1.5 capacity units required per hour<br>Capacity Type: 4 vCPU and 16 GB RAM = 2 capacity units required per hour<br>Capacity Type: 8 vCPU and 32 GB RAM = 4 capacity units required per hour<br>Capacity Type: 16 vCPU and 64 GB RAM = 8 capacity units required per hour<br>Decision Optimization = (Capacity Type) + 20 capacity units required per hour   | \$99.00 USD/Instance<br>\$0.50 USD/Capacity Unit-Hour<br>\$99.00 USD/Authorized User |
| Enterprise v2     | <b>5 authorized users + unlimited viewer collaborators</b><br>5,000 capacity unit-hours included monthly (additional capacity available)<br>Unlimited elastic compute environments<br>Capacity Type: 1 vCPU and 4 GB RAM = 0.5 capacity units required per hour<br>Capacity Type: 2 vCPU and 8 GB RAM = 1 capacity units required per hour<br>Capacity Type: 3 vCPU and 12 GB RAM = 1.5 capacity units required per hour<br>Capacity Type: 4 vCPU and 16 GB RAM = 2 capacity units required per hour<br>Capacity Type: 8 vCPU and 32 GB RAM = 4 capacity units required per hour<br>Capacity Type: 16 vCPU and 64 GB RAM = 8 capacity units required per hour<br>Decision Optimization = (Capacity Type) + 20 capacity units required per hour<br>HIPAA readiness option available in Dallas<br>Multi-Tiered | Expand each section to view details  |

Summary

**Watson Studio**  
Region: Dallas  
Plan: Lite  
Service name: Watson Studio-jr  
Resource group: Default

Create

Add to estimate

[View terms](#)

FEEDBACK

Then click **Watson**, as shown below:

IBM Cloud

Search resources and offerings...

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Dashboard Resource List

Cloud Foundry Kubernetes OpenShift VPC Infrastructure Classic Infrastructure VMware

API Management Apple Development Blockchain DevOps Functions Integrate Managed Solutions Mobile Observability Schematics Security Watson Web Apps

IO Lite IBM Service IAM-enabled

update: 07/18/2019

Monthly prices shown are for country or region: United States

| PLAN          | FEATURES   | PRICING  |
|---------------|--|--|
| Lite          | <b>1 authorized user</b><br>50 capacity unit-hours monthly limit<br>1 free small compute environment with 1 vCPU and 4 GB RAM (does not require capacity unit-hours)   | Free   |
| Standard v1   | <b>1 authorized user + unlimited viewer collaborators</b><br>50 capacity unit-hours included monthly (additional capacity available)<br>Unlimited elastic compute environments<br>Capacity Type: 1 vCPU and 4 GB RAM = 0.5 capacity units required per hour<br>Capacity Type: 2 vCPU and 8 GB RAM = 1 capacity units required per hour<br>Capacity Type: 3 vCPU and 12 GB RAM = 1.5 capacity units required per hour<br>Capacity Type: 4 vCPU and 16 GB RAM = 2 capacity units required per hour<br>Capacity Type: 8 vCPU and 32 GB RAM = 4 capacity units required per hour<br>Capacity Type: 16 vCPU and 64 GB RAM = 8 capacity units required per hour<br>Decision Optimization = (Capacity Type) + 20 capacity units required per hour   | \$99.00 USD/Instance<br>\$0.50 USD/Capacity Unit-Hour<br>\$99.00 USD/Authorized User |
| Enterprise v2 | <b>5 authorized users + unlimited viewer collaborators</b><br>5,000 capacity unit-hours included monthly (additional capacity available)<br>Unlimited elastic compute environments<br>Capacity Type: 1 vCPU and 4 GB RAM = 0.5 capacity units required per hour<br>Capacity Type: 2 vCPU and 8 GB RAM = 1 capacity units required per hour<br>Capacity Type: 3 vCPU and 12 GB RAM = 1.5 capacity units required per hour<br>Capacity Type: 4 vCPU and 16 GB RAM = 2 capacity units required per hour<br>Capacity Type: 8 vCPU and 32 GB RAM = 4 capacity units required per hour<br>Capacity Type: 16 vCPU and 64 GB RAM = 8 capacity units required per hour<br>Decision Optimization = (Capacity Type) + 20 capacity units required per hour<br>HIPAA readiness option available in Dallas<br>Multi-Tiered | Expand each section to view details  |

Summary

**Watson Studio** Free  
Region: Dallas  
Plan: Lite  
Service name: Watson Studio-jr  
Resource group: Default

Create

Add to estimate

View terms

Then click **Browse Services**.

IBM Cloud

Search resources and offerings...

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Watson

Overview Starter Kits Watson Services Browse Services Existing Services Developer Resources Documentation SDKs Learning Resources Apps

# Build with Watson

The AI platform for business

**Build a chatbot**  
Create a chatbot to interact with your customers.  
Get Started

**Extract insights**  
Query the news to understand hot topics, sentiment and more.  
Get Started

**Convert audio into text**  
Convert speech in multiple languages into text.  
Get Started

[View all Starter Kits](#) [Browse all Watson services](#)

**Consult with IBM**  
Get the most out of your IBM Cloud account by working with our consultants. Learn how to develop for the cloud, leverage Watson APIs, rearchitected an existing application, or experience the design thinking process in action.

**IBM Watson Studio**  
Collaborate to find insights fast. Visualize and manipulate data with code, graphical tools, or APIs. Develop models and neural networks with powerful algorithms and popular frameworks.

Scroll down and select **Watson Studio - Lite**.

https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBMDDeveloperSkillsNetwork-ML0101EN-SkillsNetwork/labs/FinalModule\_Coursera/IBM\_Watson\_Setup.md.html?origin=www.coursera.org2/12

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Watson

Overview

Starter Kits

Watson Services

Browse Services

Existing Services

Developer Resources

Documentation

SDKs

Learning Resources

Apps

concepts,...

Speech to Text

Text to Speech

Natural Language Classifier

Personality Insights

Tone Analyzer

Language Translator

Watson Studio

Knowledge Studio

Feedback

Ask a Question

To create a Watson service using the Lite plan, click **Create**.

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Search resources and offerings...

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Watson Studio

Lite IBM Service IAM-enabled

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Author: IBM • Date of last update: 07/18/2019

Create About

Select a region

Dallas

Select a pricing plan

Monthly prices shown are for country or region: United States

| PLAN          | FEATURES  | PRICING  |
|---------------|---|--|
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| Enterprise v2 | 5 authorized users + unlimited viewer collaborators<br>5,000 capacity unit-hours included monthly (additional capacity available)<br>Unlimited elastic compute environments<br>Capacity Type: 1 vCPU and 4 GB RAM = 0.5 capacity units required per hour  | Expand each section to view details  |

Summary

Watson Studio Free

Region: Dallas

Plan: Lite

Service name: Watson Studio-0o

Resource group: Default

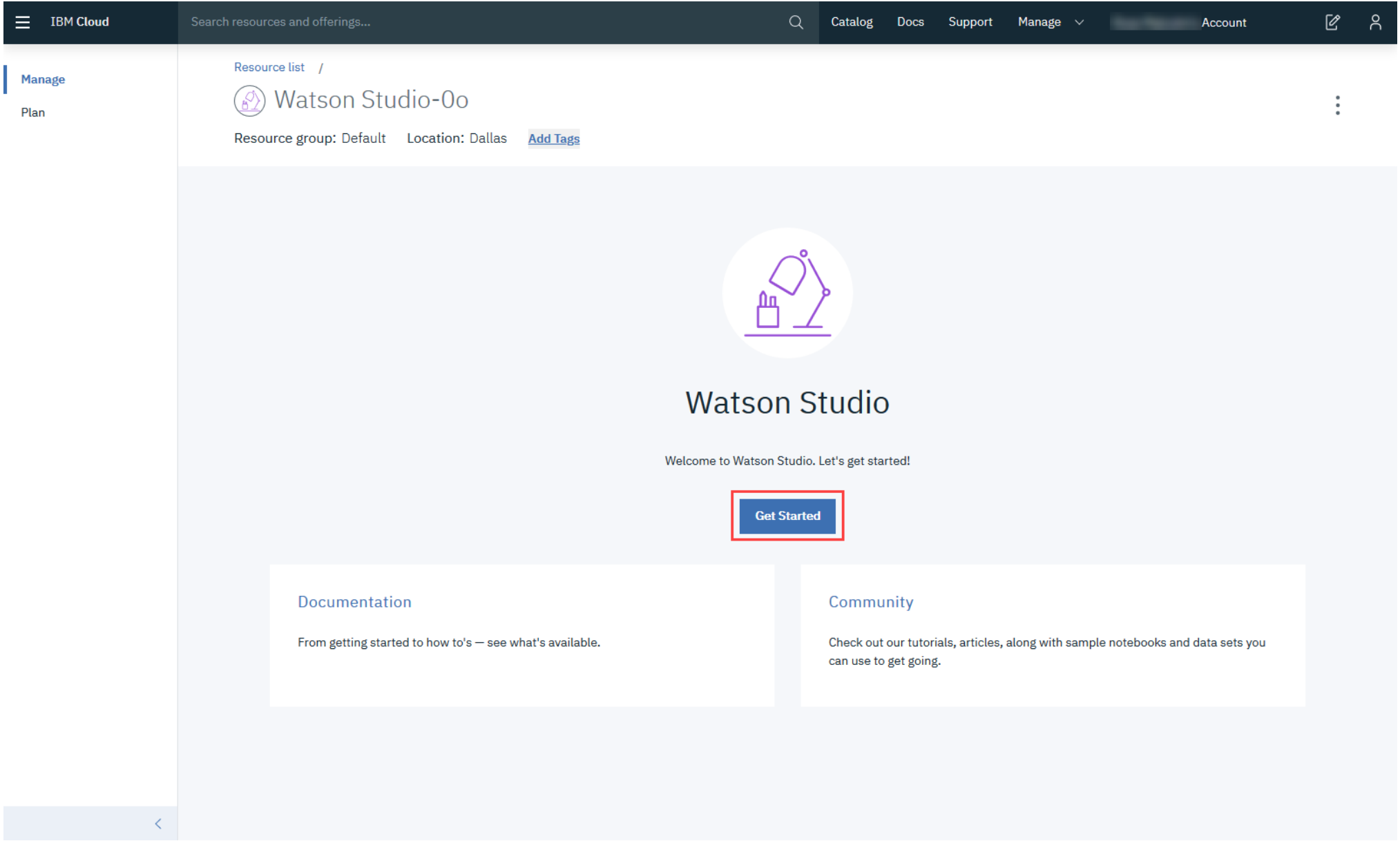
Create

Add to estimate

View terms

Feedback

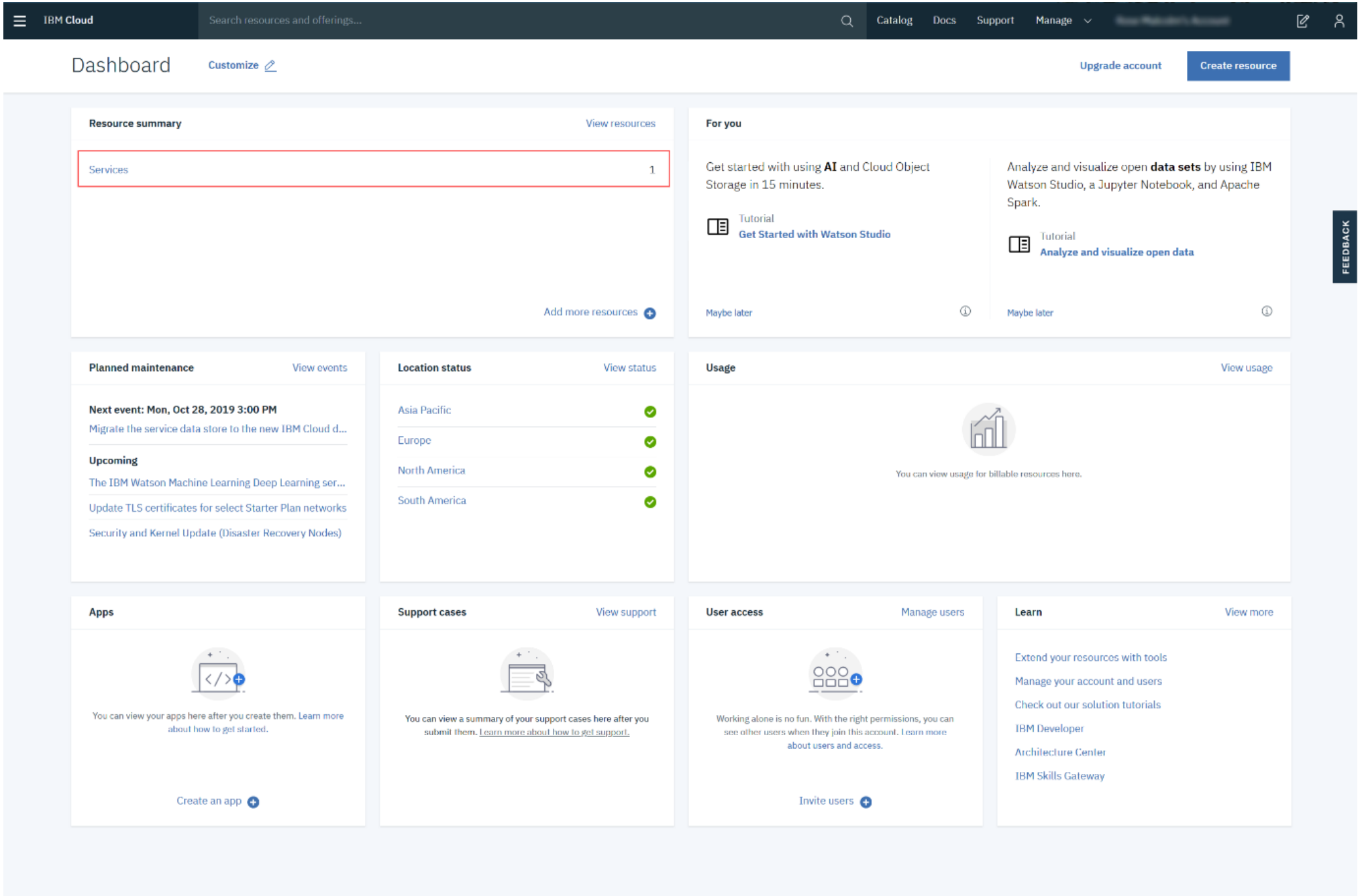
Now click **Get Started**.



After creating the service continue with **Step 2**.

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

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



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

Resource list

Create resource

Collapse all | Expand all

| 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 (1)                              |                             |             |               |             |             |
| 🔗 Watson Studio-0o                          | Default                     | Dallas      | Watson Studio | Provisioned | — ...       |
| > Storage (1)                               |                             |             |               |             |             |
| > Network (0)                               |                             |             |               |             |             |
| > Cloud Foundry Enterprise Environments (0) |                             |             |               |             |             |
| > Functions Namespaces (0)                  |                             |             |               |             |             |
| > Apps (0)                                  |                             |             |               |             |             |
| > Developer Tools (0)                       |                             |             |               |             |             |
|   |                             |             |               |             |             |

FEEDBACK

Then click **Get Started**.

☰ IBM Cloud

Search resources and offerings...

🔍

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🔗 👤 Account


Manage

Plan

Resource list /

🔗 Watson Studio-0o

Resource group: Default Location: Dallas [Add Tags](#)



# Watson Studio

Welcome to Watson Studio. Let's get started!

Get Started

Documentation

From getting started to how to's — see what's available.

Community

Check out our tutorials, articles, along with sample notebooks and data sets you can use to get going.

Step 3: Creating a Project

Now you have to Create a project.

Click on **Create a project**:

☰

IBM Cloud Pak for Data

# Welcome Malika!

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

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.

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

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

Provide a **Project Name** and **Description**, as shown below. Please make sure you have unchecked **Restrict who can be a collaborator**.



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

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

Cancel

Create

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

IBM Watson Studio

Upgrade🔼🔔👤

Cloud Object Storage

ExistingNew

### 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><div><div><div>● Lite</div></div></div></div>   | <div><div><b>1 COS Service Instance</b></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>The Lite service plan for Cloud Object Storage includes Regional and Cross Regional resiliency, flexible data classes, and built in security.</div> |  |  |
| <div><div><div><div>○ Standard</div></div></div></div>   | <div><div><b>There is no minimum fee, so you pay only for what you use.</b></div></div>  | <div>Expand each section to view details</div> |

Cancel

Create

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

https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBMDeveloperSkillsNetwork-ML0101EN-SkillsNetwork/labs/FinalModule\_Coursera/IBM\_Watson\_Setup.md.html?origin=www.coursera.org8/12



×

Confirm Creation

Plan

Lite

Resource group

Default

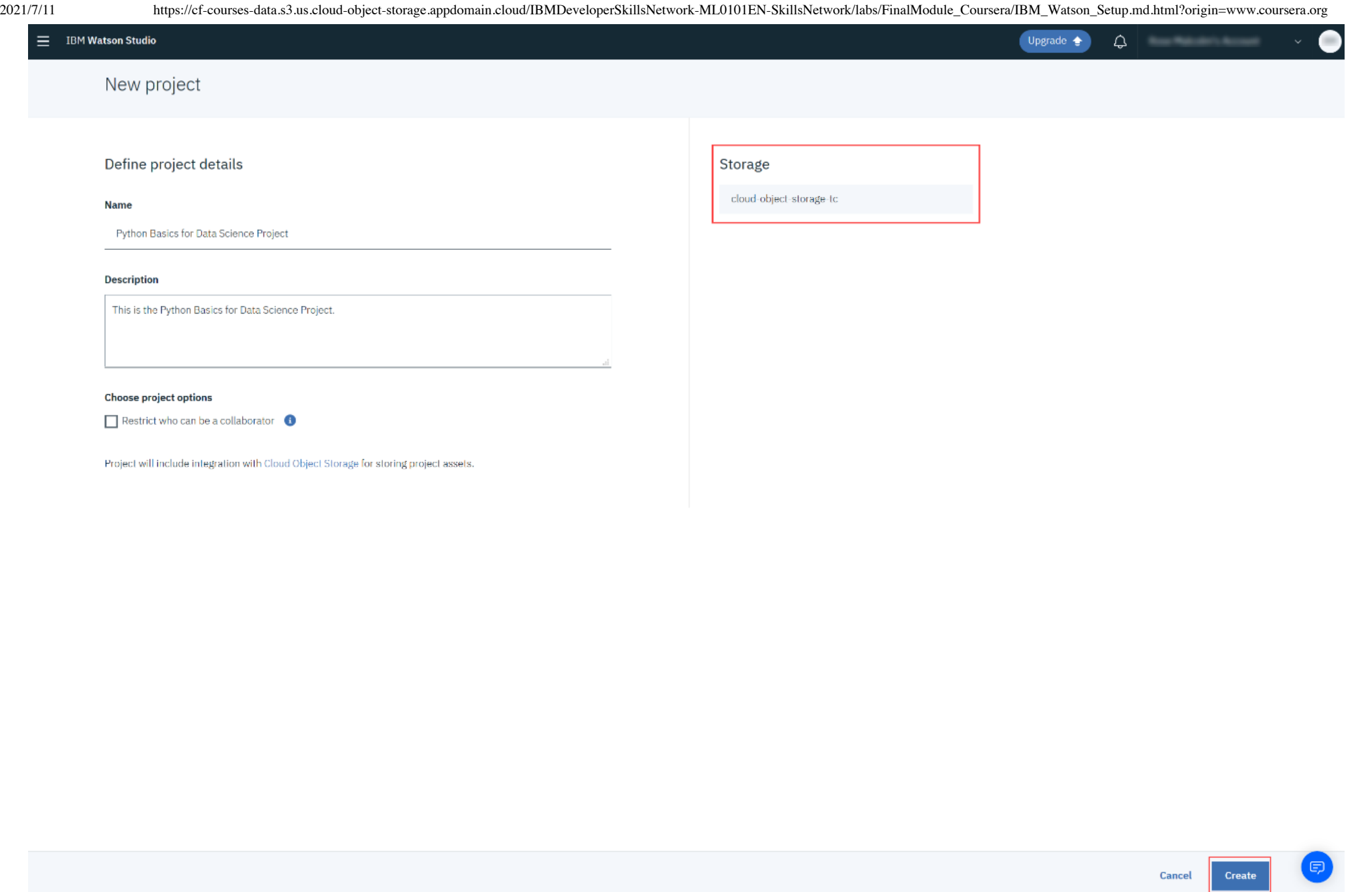
Service name

cloud-object-storage-ai

Cancel

Confirm

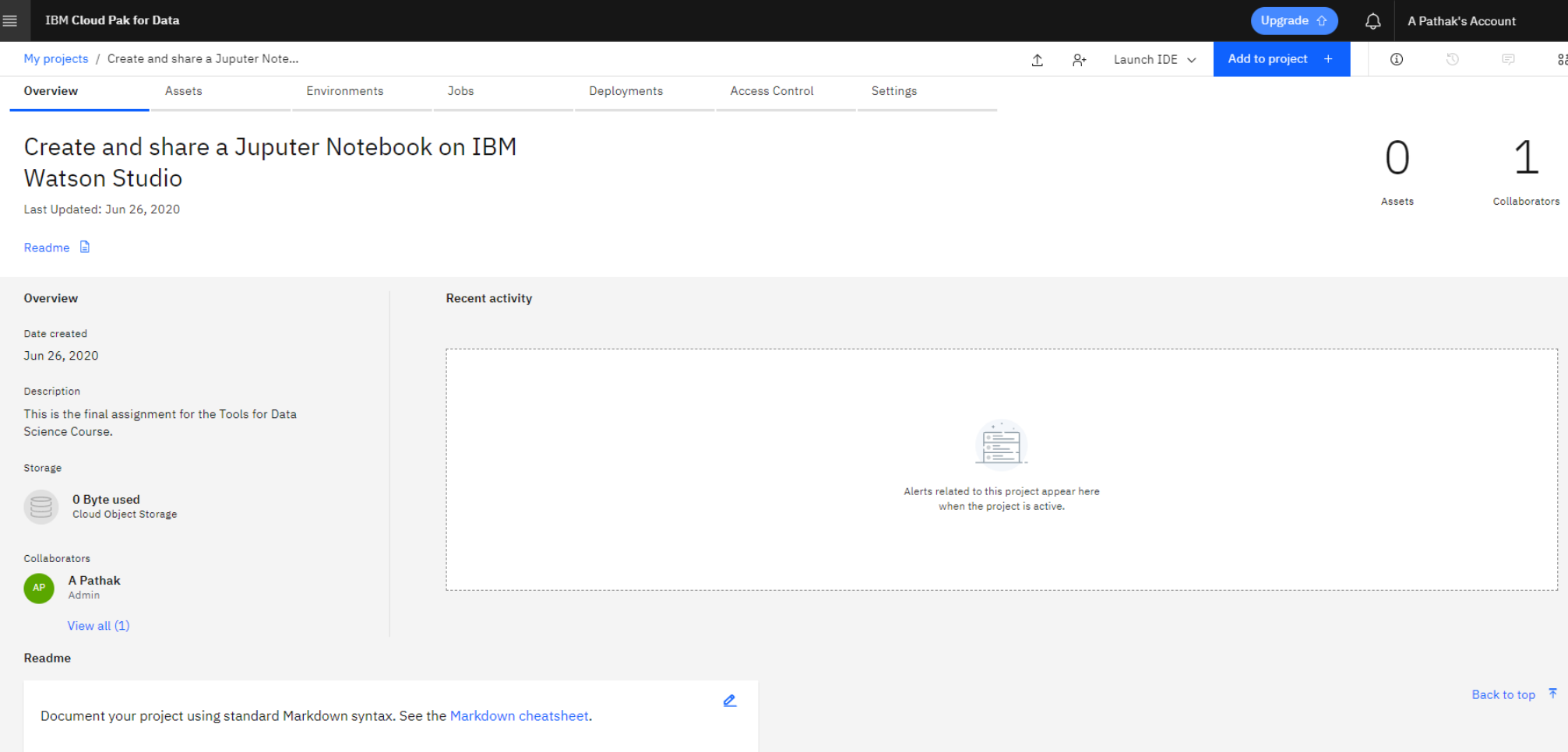
On the New project page, note that the storage has been added, and then click **Create**.



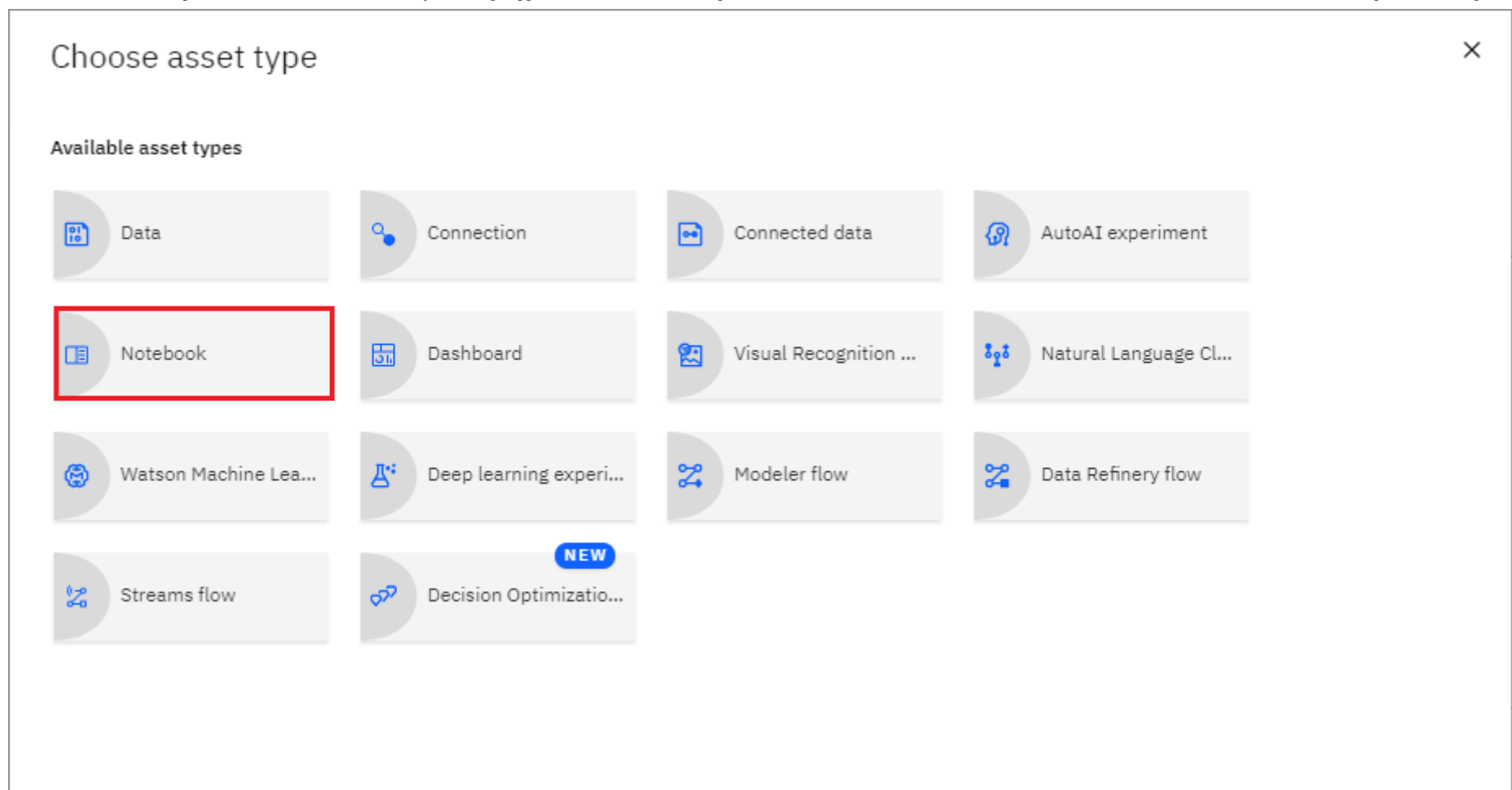
After creating the project continue with Step 3.

## Step 3: Adding a Notebook to the Project:

You need to add a Notebook to your project. Click **Add to project**.



In the list of asset types, click **Notebook**:

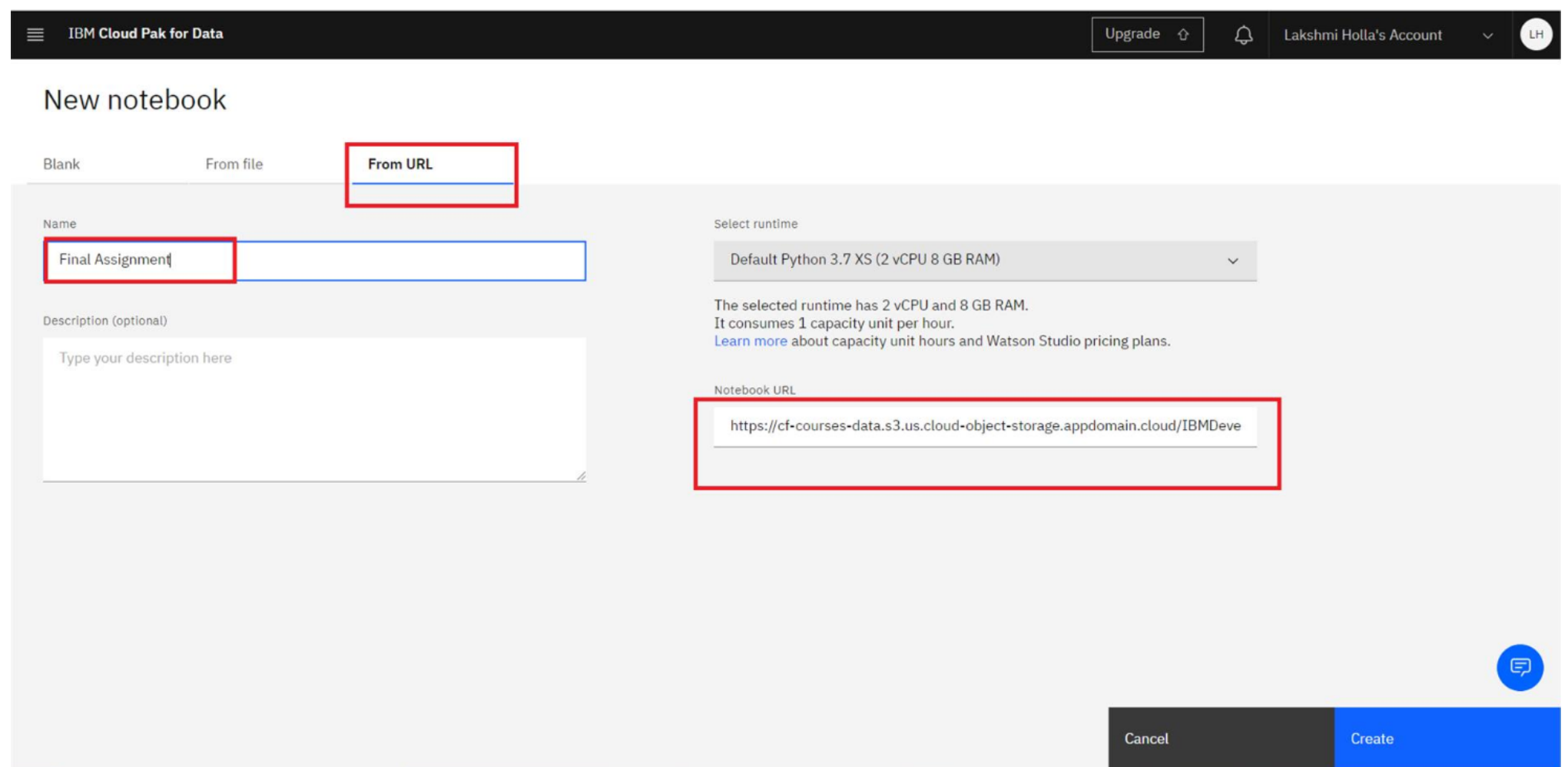


Note: Select the default Python as selected language.

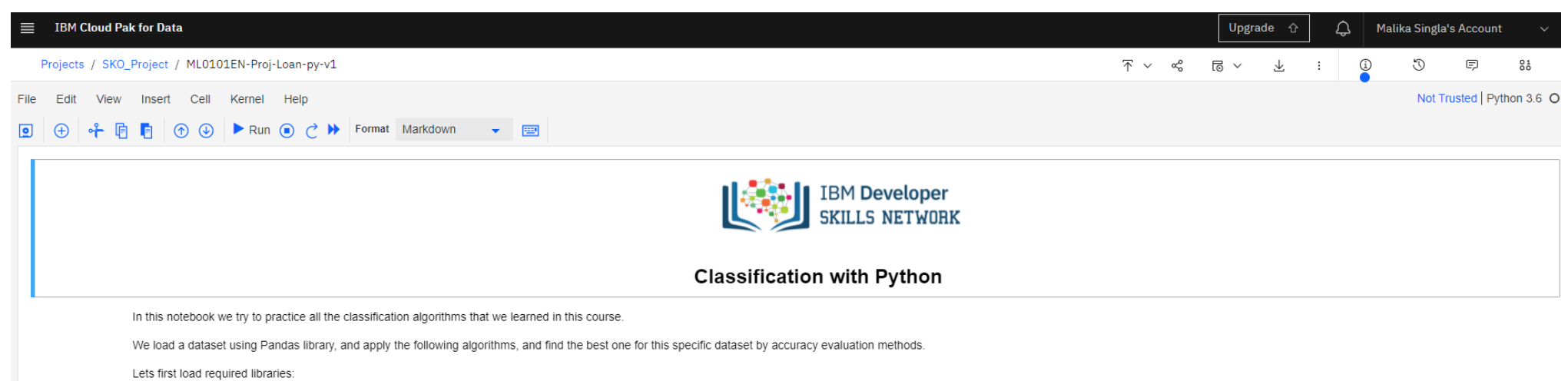
On the New Notebook page, enter a name for the notebook, and then click From URL.

Copy this link: [Click here](#)

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



You will see this Notebook:



# Author(s)

Joseph Santarcangelo

# Change log

| Date       | Version | Changed by    | Change Description     |
|------------|---------|---------------|------------------------|
| 2020-11-18 | 2.1     | Lakshmi Holla | Updated the screenshot |

|            |     |               |                        |
|------------|-----|---------------|------------------------|
| 2020-09-05 | 2.0 | Malika Singla | Updated the screenshot |
|------------|-----|---------------|------------------------|

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