

Lab: Creating a Watson Studio Project with Jupyter Notebook

[∞ coursera.org/learn/open-source-tools-for-data-science/supplement/oWP5u/lab-creating-a-watson-studio-project-with-jupyter-notebook](https://coursera.org/learn/open-source-tools-for-data-science/supplement/oWP5u/lab-creating-a-watson-studio-project-with-jupyter-notebook)

This tutorial walks you through setting up an account on the IBM Cloud and a project in Watson Studio such that you can use Jupyter Notebook for your work.

1. Please follow this link to create an [IBM Cloud Account](#). It's completely free, you don't need a credit card and the account never expires.

In case you are getting an error like below, please try with a different email address before you contact support. E.g. a non - gmail address.



Failure during registration

Try again in a few minutes. If you continue having problems, contact us at this link:

<https://watson.service-now.com/wcp>

2. Once you've completed registration and confirmed your email address, please open dataplatform.cloud.ibm.com and click **Log In**.

IBM Watson

[Log in](#)[Try it for Free](#)

Explore our apps

Use IBM Watson to collaborate and build smarter applications. Quickly visualize and discover insights from your data and collaborate across teams.



IBM Watson Studio

Democratize ML/DL to accelerate infusion of AI in your business.



IBM Watson Machine Learning

Make smarter decisions, solve tough problems, and improve user outcomes.



IBM Watson Knowledge Catalog

Securely discover, catalog, and govern enterprise data.



3. Now please click on **Create a project**.

The screenshot shows the IBM Watson Studio homepage. At the top, there's a dark header with the IBM Watson logo and navigation links like 'Gallery', 'Blog', 'Docs', 'Log In', and 'Sign Up'. Below the header is a large banner featuring a scenic mountain landscape with the text 'IBM Watson' and two buttons: 'Log in' and 'Try it for Free'. The 'Log in' button is highlighted with a red box. Underneath the banner, the text 'Explore our apps' is followed by a description: 'Use IBM Watson to collaborate and build smarter applications. Quickly visualize and discover insights from your data and collaborate across teams.' Below this, there are three cards: 'IBM Watson Studio' (with a paintbrush icon), 'IBM Watson Machine Learning' (with a hexagon icon), and 'IBM Watson Knowledge Catalog' (with a lightbulb icon). Each card has a brief description and a 'Get started' button. The main content area features a large blue background with white text: 'Welcome Vevew50608!' and 'Watson Studio • Watson Knowledge Catalog'. It also includes sections for 'Start by creating a project' (with a description and a 'Create a project' button) and 'Search a catalog' (with a description). A circular graphic on the right shows a computer monitor with a magnifying glass over a document, surrounded by network nodes.

4. Now please click **Create an empty project**.

IBM Watson Studio Upgrade Back Vevew50608 Vevew50608' ... vv

Create a project

Create an empty project, then add data and choose the right tools to accomplish your goals.



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 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

Waiting for dataplatform.cloud.ibm.com...

5. Under **Name**, please type "default", then please click on **Add** under **Define Storage**.

IBM Watson Studio Upgrade Back Vevew50608 Vevew50608' ... vv

New project

Define project details

Name
default

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 (circled)

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

② Refresh

Cancel Create 3/8

6. Once you see the screen below, please scroll down.

IBM Watson Studio

Upgrade Vewew50608 Vewew50608' ...

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.
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.	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.

Pricing Plan: Monthly Process shown above reflect the: [United States](#)
Transferring data from fast.appcues.com...

7. Please make sure the **Lite** plan is selected, then please click **Create**.

IBM Watson Studio

Upgrade Vewew50608 Vewew50608' ...

Pricing Plan: Monthly Process shown above reflect the: [United States](#)

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

The Lite service plan for Cloud Object Storage includes Regional and Cross Regional resiliency, flexible data classes, and built in security.

[Create](#)
[Cancel](#)

8. Please click **Confirm**.

9. Please click **Refresh**.

IBM Watson Studio Upgrade Bell Vevew50608 Vevew50608'... vv

New project

Define project details

Name
default

Description
Project description

Choose project options
 Restrict who can be a collaborator i

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 Chat

10. Please click **Create** to finalize project creation.

IBM Watson Studio Upgrade Bell Vevew50608 Vevew50608'... vv

New project

Define project details

Name
default

Description
Project description

Choose project options
 Restrict who can be a collaborator i

Project will include integration with Cloud Object Storage for storing project assets.

Storage
cloud-object-storage-lp

Cancel Create Chat

Congratulations, this concludes the first part of the tutorial. Please take a moment to follow through the next steps to learn how you can use Watson Studio Jupyter Notebooks.

1. Please click on **Add to project**.

The screenshot shows the 'My Projects / default' page in IBM Watson Studio. At the top right, there is a blue button labeled '+ Add to project' with a red box drawn around it. Below the header, there are tabs for 'Overview', 'Assets', 'Environments', 'Jobs', 'Deployments', 'Access Control', and 'Settings'. The 'Overview' tab is selected. On the left, there's a sidebar with sections for 'Date created' (18 Feb, 2020), 'Description' (No description available), 'Storage' (Cloud Object Storage, 0 Byte used), and 'Collaborators' (Vevew50608, Admin). The main area has a title 'Recent activity' and a note: 'Alerts related to this project will show here when the project is active.' A URL at the bottom left is: <https://dataplatform.cloud.ibm.com/projects/3328025e-33ef-4203-81a4-efb5bc8dc626?context=wdp#top>.

2. Here you can select an abundance of tools, but let's go for Jupyter Notebooks first. Please click **Notebook**.

The screenshot shows a modal dialog titled 'Choose asset type' in the center of the screen. The 'Notebook' option is highlighted with a red circle. Other options include Connection, Connected data, AutoAI experiment, Dashboard, Visual Recognition ..., Natural Language Cl..., Watson Machine Lea..., Deep learning experi..., Modeler flow, Data Refinery flow, Streams flow, and Decision Optimizatio... (NEW). A URL at the bottom left is: <https://dataplatform.cloud.ibm.com/projects/3328025e-33ef-4203-81a4-efb5bc8dc626?context=wdp#top>.

3. In order to not use up your monthly free compute credits just select the **Default Python 3.6 Free** runtime.

New notebook

Blank From file From URL

Name
Type notebook name here
40 characters remaining

Description (optional)
Type your description here
500 characters remaining

Select runtime

- Default Python 3.6 XS + DO (2 vCPU 8 GB RAM)
- Default R 3.4 XS (2 vCPU 8 GB RAM)
- ✓ Default Python 3.6 XS (2 vCPU 8 GB RAM)
- Default R 3.4 S (4 vCPU 16 GB RAM)
- Default R 3.6 S (4 vCPU 16 GB RAM)
- Default Python 2.6-S (4 vCPU 16 GB RAM)
- Default Python 3.6 Free (1 vCPU 4 GB RAM) (highlighted)
- Default Spark 2.4 & Scala 2.11 (Driver: 1 vCPU 4 GB RAM, 2 Executors: 1 vCPU 4 GB RAM)
- Default Spark 2.4 & Python 3.6 (Driver: 1 vCPU 4 GB RAM, 2 Executors: 1 vCPU 4 GB RAM)
- Default Spark Scala 2.11 (Driver: 1 vCPU 4 GB RAM, 2 Executors: 1 vCPU 4 GB RAM)
- Default Spark R 3.4 (Driver: 1 vCPU 4 GB RAM, 2 Executors: 1 vCPU 4 GB RAM)
- Default Spark Python 3.6 (Driver: 1 vCPU 4 GB RAM, 2 Executors: 1 vCPU 4 GB RAM)

Create notebook

4. Please click **Create notebook**.

New notebook

Blank From file From URL

Name
test
36 characters remaining

Description (optional)
Type your description here
500 characters remaining

Select runtime

Default Python 3.6 Free (1 vCPU 4 GB RAM)

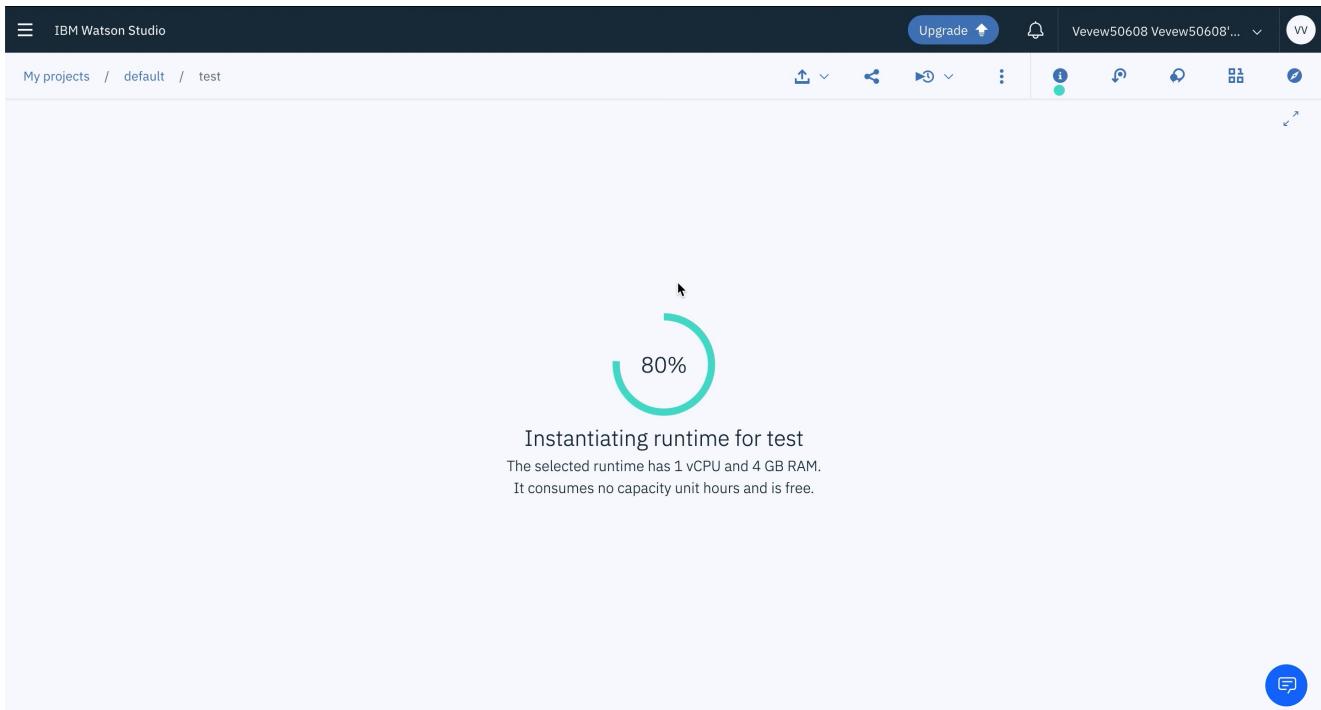
The selected runtime has 1 vCPU and 4 GB RAM.
It consumes no capacity unit hours and is free.
[Learn more](#) about capacity unit hours and Watson Studio pricing plans.

Language

Python 3.6

Create notebook

5. Just wait until the Notebook appears. In case you are interested. The Jupyter enterprise gateway has requested resources on the Kubernetes cluster IBM hosts for serving the Jupyter kernel backing your Notebook.



6. Now you're ready to code!

A screenshot of the Jupyter Notebook interface within IBM Watson Studio. The top navigation bar includes "File", "Edit", "View", "Insert", "Cell", "Kernel", and "Help". To the right, it shows "Not Trusted | Python 3.6". The main area contains two code cells. The first cell, labeled "In [1]:", contains the Python code "print(1+1)" and its output "2". The second cell, labeled "In []:", is currently empty and highlighted with a green border. A blue circular icon with a white speech bubble symbol is located in the bottom right corner of the notebook area.

This concludes this tutorial.