Environment Setup Instructions

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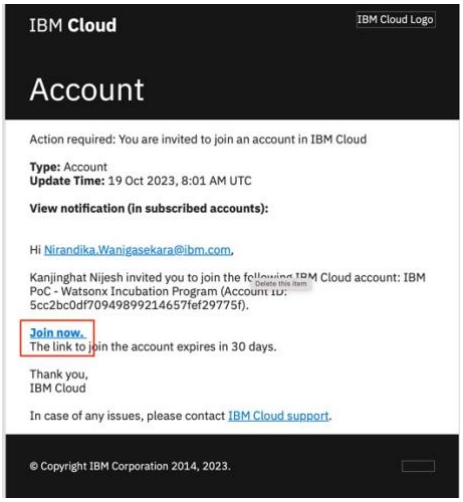
2 Introduction

Complete the steps in this guide to ensure your desktop environment has all the required tools/libraries installed and ensure you have the necessary IBM Cloud access.

3 Steps to Complete

3.1 Accept the IBM Cloud Invitation

Accept the invitation from the IBM Cloud: 2719271-IBM PoC-Watsonx Incubation Program



3.2 Obtain your IBM Cloud API key

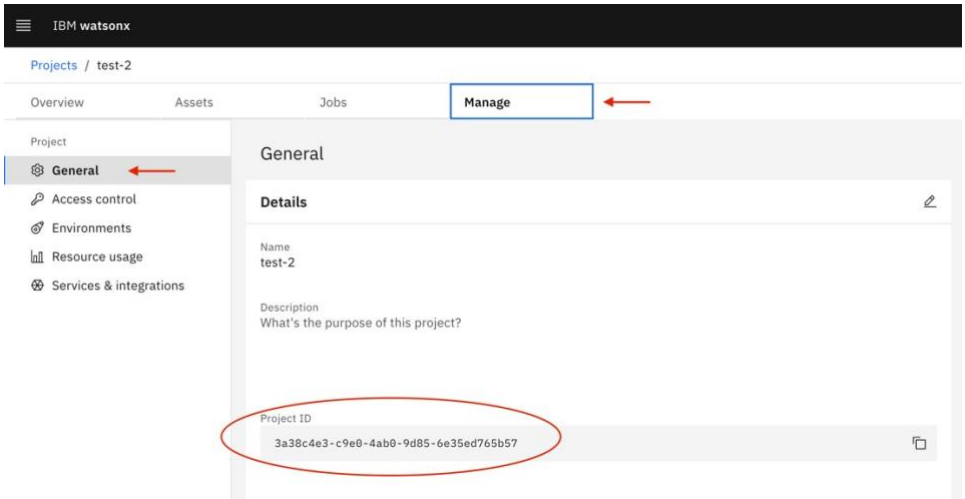
You will need your IBM Cloud API key for this lab. If you have an existing API key please us it or follow these instructions to generate a new one in the IBM cloud. You will need this API key for next steps.

3.3 Connect to your watsonx.ai instance.

Ensure that you can log into to watsonx.ai.

3.4 Locate the Watsonx.ai Project Id.

Ensure you are logged into to watsonx.ai.
Select the project under your organization name.
Select the "Manage" tab from your Project's main page.
You will see your Project ID under the "General" tab as shown below.



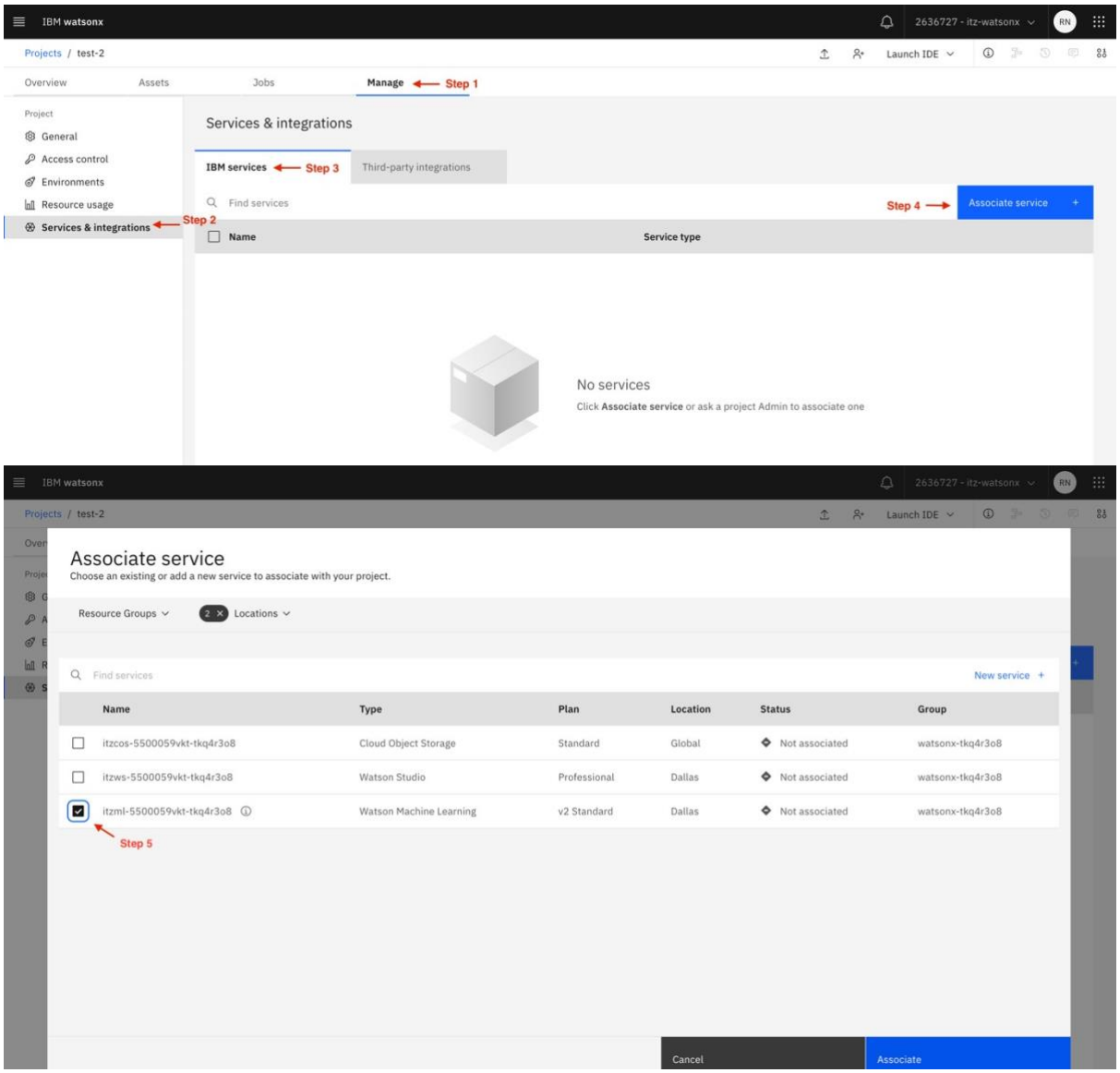
3.5 Associate your project with a WML instance (optional)

A watsonx.ai project must always be associated with an instance of Watson Machine Learning (WML) before you can use the Prompt Lab or interact with the WML Python SDK.

As you are in an instructor-led workshop and the project was created for you, then no further action is required (i.e., an instance of WML should already be associated with the project)

If the WML instance is not associated for some reason complete the following steps :

1. Within your newly created watsonx.ai project, click the Manage tab
2. Select Services & integrations from the side navigation menu
3. Select the IBM Services tab
4. Select Associate service +
5. Choose a WML instance and select Associate



3.6 Clone the workshop Git repo

If you're a Github pro then you can directly clone this watsonx.ai workshop repo.

Otherwise, we recommend downloading and installing the Github Desktop and then cloning this watsonx.ai workshop repo. Here are instructions on how to clone a repository using Github Desktop.

3.7 Install/Update (optional – only for Mac Users)

Xcode is a collection of developer tools that we will need in this. Access the App Store and search for "xcode." Click the "Get" button or the Cloud icon to install the latest version.

3.8 Install Visual Studio Code (VS Code)

We recommend installing VS Code for this workshop so we are on a common platform for this workshop.

3.9 Update credentials in .env file

Python provides support for .env files through a library called dotenv that we will use in this workshop to pass the credentials.
Create a new file in lab 0, and name the file ".env". If you have created the file, but are having trouble viewing it, learn how to view hidden files on a Mac or how to view hidden files on Windows.

Open the .env file, add the following content:

```
API_KEY=<your-ibm-cloud-api-key>
IBM_CLOUD_URL=https://us-south.ml.cloud.ibm.com
PROJECT_ID=<your-project-id>
```

Use the IBM_CLOUD_URL given above. The API_KEY and PROJECT_ID need to be filled in by you.

1. Add your IBM Cloud API key from Step 1.2.2 in API_KEY
2. Add your project ID from Step 1.2.4 in PROJECT_ID

Save your changes and close the file.

3.10 Create a virtual python environment and install all required libraries.

Install all the python libraries using this requirements_venv.txt.

You can use your favourite python package manager and create a virtual environment called genai and install all the python using this requirements_venv.txt. For windows users, it is recommended to use conda.

```
conda create --name genai python=3.11 conda activate
genai
python -m pip install -r requirements_venv.txt
```

Optionally, if you want to use a virtual environment using `venv`, follow the steps below.

1. Upgrade to Python v3.11 to avoid any conflicts: Minimum python version needed for our workshop is 3.11. Upgrade your python version to Python 3.11

2. Create your Python virtual environment:

    a. Create a folder <my-folder>
    b. Open a terminal/console window and enter the commands below to create a Python environment called `genai`.

    ```
    cd <directory to store your Python environment>
    python -m venv genai
    ```

    c. Download requirements_venv.txt
    d. Move the requirements_venv.txt file to the folder <my-folder>
    e. Activate your Python virtual environment with these commands:
    Mac-

    ```
    source genai/bin/activate python -m pip
    install -r requirements_venv.txt
    ```

    Windows-

    ```
    .\genai\bin\activate
    python -m pip install -r requirements_venv.txt
    ```

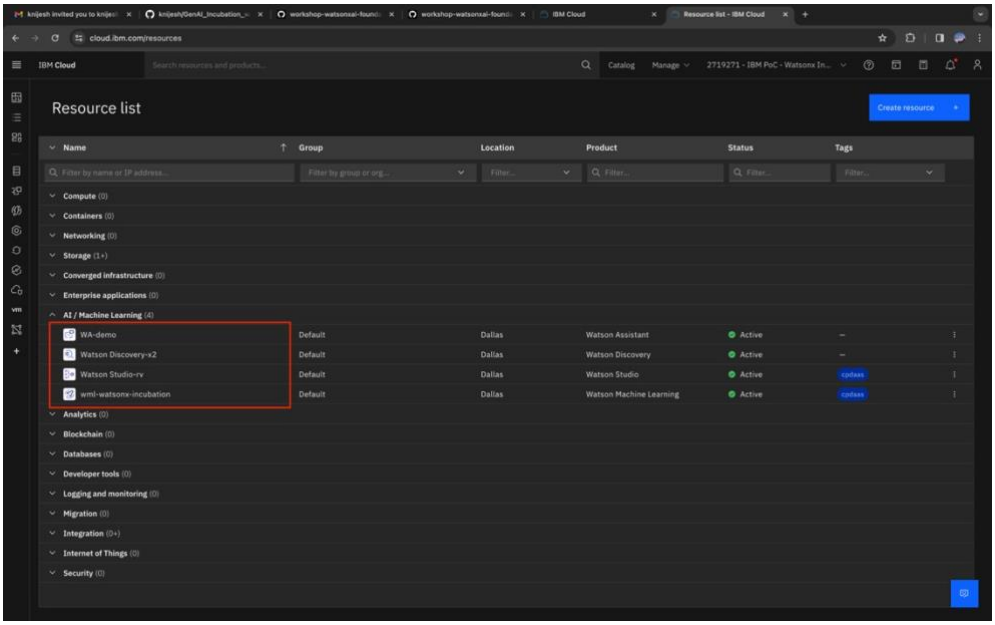
    f. Validate that the start of the prompt line in your terminal/console window changed to genai.

    ```
    (base) anthonystevens@anthonys-mbp Python.venv % python -m venv genai
    (base) anthonystevens@anthonys-mbp Python.venv % source genai/bin/activate
    (genai) (base) anthonystevens@anthonys-mbp Python.venv %
    ```

3.11 Ensure you have access to all the IBM Cloud services.

Login in to ibm cloud account IBM Cloud: 2719271-IBM PoC-Watsonx Incubation Program. Ensure you can see the following services for

1. Watson Assistant
2. Watson Discovery
3. Watson Studio
4. Watson Machine Learning


cloud.ibm.com/resources
IBM Cloud
Catalog
Manage
Resource list
Create resource
Name
Group
Location
Product
Status
Tags
Compute (0)
Containers (0)
Networking (0)
Storage (1+)
Converged infrastructure (0)
Enterprise applications (0)
AI / Machine Learning (4)
WA-demo
Default
Dallas
Watson Assistant
Active
Watson Discovery-v2
Default
Dallas
Watson Discovery
Active
Watson Studio-rv
Default
Dallas
Watson Studio
Active
wml-watsonx-incubation
Default
Dallas
Watson Machine Learning
Active
Analytics (0)
Blockchain (0)
Databases (0)
Developer tools (0)
Logging and monitoring (0)
Migration (0)
Integration (0+)
Internet of Things (0)
Security (0)