



Data Science and MLOps

Level 4 Installation and Provisioning

Environment Setup Guide



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Worldwide Technology Enablement

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Introduction

This document provides information on how to set up the environment required to complete the various labs and exercises in the Installation and Provisioning section of the watsonx.ai: Data Science and MLOps Level 4 course. These labs are useful for understanding and implementing various capabilities in client solutions, or can be used to provide introductory “how-to” scenarios for clients.

The environment used is provisioned and hosted through IBM TechZone. Different environments are used for different labs. In general, the reservation process is similar for all images; however, each images support different services and labs, and the access method may also vary.

The following table shows a mapping between the labs and the required images in TechZone.

Lab	Image(s) Required
watsonx.ai: Data Science and MLOps Level 4 Installation and Provisioning Hands-on Lab: https://ibm.seismic.com/Link/Content/DCMJpHHQqVHJmGhQWcQp4HH6gpDd	Environment Name: watsonx.ai and watsonx.data Level 4 Install Environment Image Link: https://techzone.ibm.com/collection/data-and-ai-technology-sales-enablement/journey-watsonx-technical-enablement

This document provides the steps to take to provision an environment in IBM TechZone for the Installation and Provisioning section of the watsonx.ai: Data Science and MLOps Level 4 course.

Disclaimer

IBM watsonx.ai is being developed and released in an agile manner. In addition to adding new capabilities, the web interface is likely to change over time. Therefore, the screenshots that are used in this lab might not always look exactly like what you see. You might encounter changes in the user interface, such as the location of buttons, text in various fields, or the addition of tabs/buttons.

This should not affect how the labs work, but have patience and explore.

Raise questions on the #data-ai-demo-feedback Slack channel (IBMer only). IBM partners can request help at the Partner Plus Support (<https://www.ibm.com/partnerplus/support>) website.

Note: Safari is not a supported browser. Use Chrome, Edge, or Firefox. (The watsonx.ai: Data Science and MLOps Installation and Provisioning Level 4 Lab Hands-on Lab was tested using Chrome.)

Getting Help

This section provides information about getting help with your lab environment.

If you have any difficulties provisioning your environment, view the IBM Technology Zone Help page (<https://techzone.ibm.com/help>). If you have an issue with the site, you can open a support case (https://ibmsf.force.com/ibminternalproducts/s/createrecord/NewCase?language=en_US).

Alternatively, you can send an email to techzone.help@ibm.com. This contact information is also provided in the emails that you receive from IBM Technology Zone.

If you require assistance in interpreting any of the steps in watsonx.ai: Data Science and MLOps Level 3 Lab, post your questions to the [#data-ai-demo-feedback](#) Slack channel (IBMer only). Business Partners can request help at the [Partner Plus Support](#) website.

Assistance with the watsonx.ai product itself is available in the [#watsonx-ai-feedback](#) (IBMer only) and the [#watsonx-ai-enablement](#) Slack channels (IBMer only). Additionally, refer to the Documentation for IBM watsonx as a Service (<https://dataplatform.cloud.ibm.com/docs/content/wsj/getting-started/welcome-main.html?context=wx&audience=wdp>) as needed.

Prerequisites and Getting Started

You must use a TechZone account to complete this lab, or you might run into issues such as missing services or out of tokens issues. When you use TechZone, you will not (and should not) need to subscribe to any additional services, such as the free Lite Watson Machine Learning service.

In fact, if you add the Lite version of the Watson Machine Learning service by mistake, you will be using that service, instead of the one associated with the TechZone account, and you will likely encounter an “out of token” message.

The detailed setup instructions, including the TechZone Image to use for this lab, are as follows:

- Create IBMid
- Create an IBM Cloud Account
- Reserve an environment in IBM Technology Zone
- Create an API Key

Create your IBMid

Before you can provision an environment on IBM Technology Zone, you must have an IBM account and a corresponding IBMid. You can create an IBMid for free if you do not have one.

1. In your web browser, go to the IBM account page (<https://www.ibm.com/account/us-en/>).
2. Click **Log in to My IBM** (A).

3. The Log in to IBM page is displayed. Click **Create an IBMid** (A).

4. On the Create an IBMid page, enter the following information:

- Your email address (A)
- A password for your IBMid account (B)
- First name (C)
- Last name (D)
- Your Country or Region of residence (E)
- The name of your company (F)
- Click **Next** (G) to continue

The screenshot shows the 'Create an IBMid' form on the IBM website. The form is titled 'Create an IBMid' and includes a link to 'Log in'. The fields are organized into two columns under the heading 'Account information'. The fields are labeled as follows:

- A**: Business email (input field containing 'itzuser@email.com')
- B**: Password (input field showing masked text)
- C**: First name (input field containing 'ITZuser')
- D**: Last name (input field containing 'TechZone')
- E**: Country or region of residence (dropdown menu set to 'United States of America')
- F**: Company (input field containing 'International Business Machines C...')
- G**: Next (blue button)

Below the form, there is a 'Verify email' section with a 'Submit' button.

5. You are then prompted to verify your email and complete your account creation. Enter the code that was emailed to you in **Verification token** (A), and then click **Submit** (B).

IBM

Welcome to IBM

Create an account to access trials, demos and services.

Create an IBMid

Already have an IBM account? [Log in](#)

Account information

Verify email

We emailed a 7 digit code to itzuser@email.com
This code will expire in 30 minutes.

Verification token

3540633

Didn't receive the email? Check your spam filter for an email from ibmacct@iam.ibm.com.

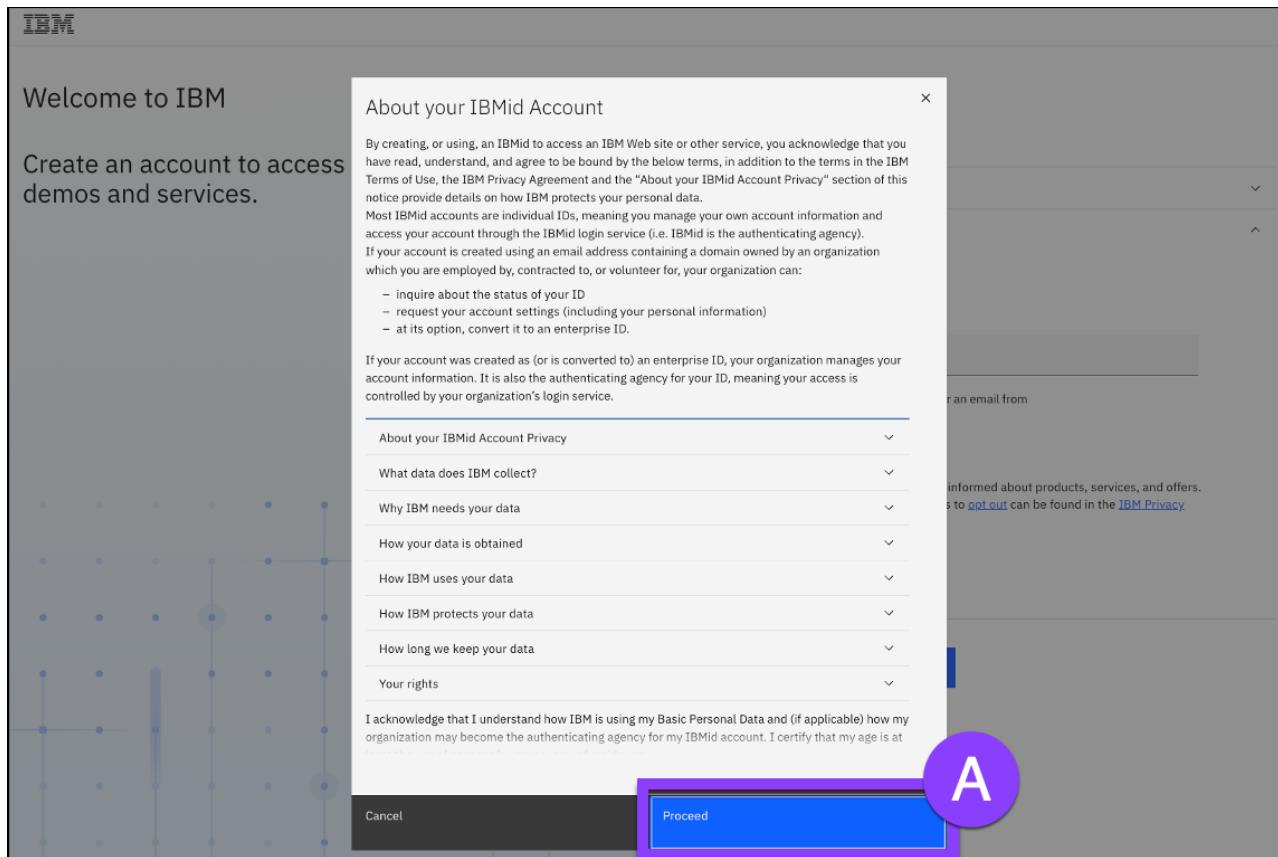
You can resend the verification token in **40** seconds

By providing my contact details, I acknowledge that IBM will keep me informed about products, services, and offers. More information on how IBM uses data can be found in the [IBM Privacy Statement](#).

I accept the product [Terms and Conditions](#).

Submit

6. The About your IBMid Account page is shown. Click **Proceed** (A).



7. After a few minutes, you should receive an email confirming that your IBMid has been activated.

Note: The first time that you log in using your IBMid you will be sent another code to verify your login.

Get an IBM Cloud Account

If you have an IBM Cloud account, you can skip this step. If you do not have an IBM Cloud account, go to IBM Cloud to create one (<https://cloud.ibm.com/registration>). After you complete the registration, you will be sent an email to activate your account. This can take a few hours to process. After you receive the confirmation email, follow the instructions that are provided in the email to activate your account.

You will use IBM Technology Zone (<https://techzone.ibm.com/>) to complete the exercises in this lab. The detailed setup instructions are available in this document. Ensure that you have completed any prerequisites. For example, some labs require you to complete the process to access watsonx.ai before you can proceed with any of the lab exercises.

Reserve an environment in IBM Technology Zone

This lab requires the use of an environment that is provisioned through IBM Technology Zone.

If you are using the lab with a client, ensure that you reserve enough time to set up the environment as some labs have some amount of setup. As well, reserve the lab far enough in advance so that you can choose the best time for your client.

1. Log in to IBM Technology Zone (<https://techzone.ibm.com>). You will see the landing page, which should look like the following image.

Welcome to Technology Zone, Payal.Patel

Technology Zone is the single destination for our go-to-market teams and IBM business partners ecosystem to access on-demand and live environments to learn, build, show, and share the value of IBM solutions. Additionally, they can extend our certified base images and further customize them for test, education, demonstration, and pilot activities.

Learn more on the TechZone Hub → Search environments and collections

Certified Base Images

These images are 'TechZone Certified' and represent the best starting point for building new content, showing clients how easy it is to deploy IBM Technology from scratch, or testing custom configurations. TechZone Certified environments have been tested, secured, are fully supported by the TechZone team, and regularly maintained to ensure reliability and stability.

[Explore collection →](#)

2. Copy and paste the following HTTP address in the browser's search field (A) (do not use the magnifying glass icon) and press Enter to be taken to the Data and AI Technology Sales Enablement Collection on TechZone.

<https://techzone.ibm.com/collection/data-and-ai-technology-sales-enablement/journey-watsonx-technical-enablement>

Welcome to Technology Zone, Payal.Patel

Technology Zone is the single destination for our go-to-market teams and IBM business partners ecosystem to access on-demand and live environments to learn, build, show, and share the value of IBM solutions. Additionally, they can extend our certified base images and further customize them for test, education, demonstration, and pilot activities.

Learn more on the TechZone Hub → Search environments and collections

Certified Base Images

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[Explore collection →](#)

[Cookie Preferences](#)

3. Your browser will open to the watsonx Technical Enablement page. On the left side, the **watsonx Technical Enablement** section should be highlighted. If not, select it (A).

The screenshot shows the "Data and AI Technology Sales Enablement" page. On the left sidebar, under "Watsonx Technical Enablement", there is a purple circle labeled "A". The main content area displays a journey titled "Watsonx Technical Enablement" with a rating of 4 stars. It features a central graphic with icons for training, AI, and governance. Below the graphic, a text box states: "This journey contains the environments that support the Level 3 and 4 learning plan hands-on labs related to IBM watsonx solutions." Four environment cards are listed:

- Environment - IBM Cloud InstructLab opensource CLI v0.21.0**: Updated May 27, 2025. Description: This is the InstructLab opensource CLI that can be used to experiment and learn about synth data for model tuning. **Note:** This environment should not be used for customer demos or POCs.
- Environment - IBM Cloud watsonx.ai for custom models with Student Id**: Updated May 27, 2025. Description: This environment gives access to a TechZone IBM Cloud account with watsonx AI with a shared WML standard plan for custom model imports. Only use this environment if you require to show integration with InstructLab. Be aware that you will not be able to...
- Environment - IBM Cloud watsonx.ai and watsonx.governance with Student Id**: Updated May 27, 2025. Description: This environment gives access to a TechZone IBM Cloud account with the following services: Cloud Object Storage, Db2 (Lite), watsonx.ai Runtime, watsonx.ai Studio, and watsonx.governance. **Note:** This reservation creates Student ID credentials and **do...
- Environment - IBM Cloud watsonx.ai and watsonx.governance SaaS**: Updated May 27, 2025. Description: Dedicated instance of watsonx.ai, watsonx.governance, WKC, COS, and optional DB2. Be sure to accept the IBM Cloud invitation to the correct itz-watsonx-n account on your first reservation of this. Consecutive reservations won't require you to accept the ...

4. Scroll down until you find the **watsonx.ai and watsonx.data Level 4 Install** tile (A). Click **IBM Cloud Environment** (B) in the **watsonx.ai and watsonx.governance with Student Id** tile.

The screenshot shows the same "Data and AI Technology Sales Enablement" page. The "Watsonx Technical Enablement" section is highlighted with a purple circle labeled "A". A specific tile, "Environment - IBM Cloud watsonx.ai and watsonx.data Level 4 Install", is also highlighted with a purple box and labeled "A". Below this tile, another purple circle labeled "B" points to the "IBM Cloud environment" button. The tile has a "Certified" and "Pre-warmed" badge. The description for this tile states: "Environment that supports the watsonx.ai, watsonx.data and watsonx.ai Data Science and ML/OPS installation component of the Level 4 for Practitioners courses on YourLearning. This environment is provisioned from a pool of prewarmed environments..."

5. You will now be on the reservation site for a watsonx.ai environment. Select **Reserve a environment** (A).

The screenshot shows the 'Create a reservation' interface. At the top, there are navigation links for 'IBM Technology Zone', 'My TechZone', and 'Support'. On the right, there are search, notification, and user profile icons. The main title is 'Create a reservation' under 'Data and AI Technology Sales Enablement' for 'watsonx.ai and watsonx.data Level 4 Install'. Below the title, there are four steps: 'Select a environment/infrastructure' (active), 'Select a reservation type', 'Fill out your reservation', and 'Complete'. Under 'Single environment reservation options', there is a radio button labeled 'Reserve a environment' (highlighted with a purple box and labeled 'A'). At the bottom right, there is a checkbox for 'I agree to IBM Technology Zone's [Terms & Conditions](#) and [End User Security Policies](#)' and a 'Submit' button.

6. On the reservation form, complete the following fields:
- Leave the **Name** (A) of the reservation as is, or change to your preferred name.
 - Select the **Education** tile (B).
 - For the **Purpose description** (C), enter watsonx.ai Data Science and MLOps Installation Level 4 Lab.
 - Select your **Preferred Geography** (D). In the following example, **AMERICAS** is chosen.

The screenshot shows the 'Create a reservation' page on the IBM Technology Zone. At the top, there's a navigation bar with 'IBM Technology Zone', 'My TechZone', and 'Support'. Below the title 'Create a reservation' and subtitle 'Data and AI Technology Sales Enablement', there are four tabs: 'Select a environment/infrastructure' (radio button selected), 'Select a reservation type' (radio button selected), 'Fill out your reservation' (radio button selected), and 'Complete' (radio button unselected). The 'Name' field (A) contains 'watsonx.ai and watsonx.data Level 4 Install'. Below it is a note: 'Name this reservation. This will help identify it in your reservation list.' The 'Purpose' section (B) includes three options: 'Demo' (selected), 'Education', and 'Lab Development'. The 'Demo' option is described as 'Deliver a client specific demonstration based on discovery with the client and aligns to the identified architecture. Automatically captures a "Technical Sales Activity in IBM Sales Cloud on the Opportunity code provided.'. The 'Education' option is described as 'Gaining experience with specific technology, product, or solution.' The 'Lab Development' option is described as 'Build and configure environments to support the creation and testing of labs for the TechChange event. Intended for lab developers during the development phase before final student delivery.' The 'Test' section is collapsed. A note at the bottom of the purpose section says: 'Please ensure to select the correct purpose as this can NOT be updated or changed after this reservation has been created. Review the [Reservation Duration Policy](#) to understand default durations allowed for specific infrastructures based on purpose.' The 'Sales Opportunity number' field is empty. The 'Purpose description' field (C) contains 'watsonx.ai Data Science and MLOps Installation Level 4 Lab'. Below it is a note: 'Providing an [IBM Sales Cloud opportunity number](#), or a [Project Work ID](#) will allow you to extend your reservation date.' The 'Preferred Geography' field (D) contains 'any - AMERICAS - any region - any datacenter'. At the bottom right, there's a checkbox for 'I agree to IBM Technology Zone's [Terms & Conditions](#) and [End User Security Policies](#)' and a 'Submit' button.

7. Scroll down on the reservation form, and complete the following fields:

- a. Specify the **End date and time** (A). By default, the end date is 2 days from the current date when you reserve watsonx.ai and watsonx.governance with Student Id. You can extend it up to a maximum of 6 days.

Note: This limit may vary among different TechZone images.

- b. You can optionally provide some additional notes if you choose (B).
- c. On the lower right side, accept the **Terms and Conditions**, then click **Submit** (C).

Please ensure to select the correct purpose as this can **NOT** be updated or changed after this reservation has been created. Review the [Reservation Duration Policy](#) to understand default durations allowed for specific infrastructures based on purpose.

Sales Opportunity number
Enter opportunity number
Providing an [IBM Sales Cloud opportunity number, or a Project Work ID](#) will allow you to extend your reservation date.

Purpose description
watsonx.ai Data Science and MLOps Installation Level 4 Lab

What are you doing? Why do you need this? What are you trying to accomplish?

Preferred Geography
any - AMERICAS - any region - any datacenter

Start date and time
Select a date
07/17/2025 09:40 AM America/New_York

End date and time
Select a date
01/13/2026 08:40 AM America/New_York

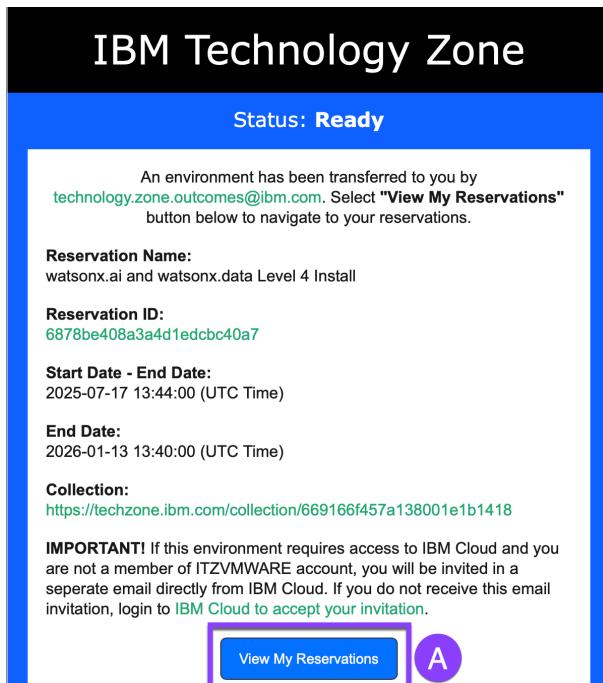
Reservation policy: Recommended 6 months, but can be reserved up to 6 months on this reservation form. Extend later for null increments up to null total. Max time 6 months total.

Notes
Enter any notes you would like to attach to this reservation

I agree to IBM Technology Zone's [Terms & Conditions](#) and [End User Security Policies](#)

Submit

- 8. You will get an email sent to your IBMid email address informing you that your reservation is being provisioned (this should happen within 10 - 15 minutes). After the watsonx.ai provisioning is completed, you will receive a second email indicating that it is ready for use. This email looks like the following example. Click **View My Reservations** (A).



9. The **My reservations** page opens. Select the correct reservation tile (you might have more than one). In the following example, it is the **watsonx.ai and watsonx.data Level 4 Install** tile. Click it to open the detailed reservation information page (A).

Note: If you have any difficulties provisioning your environment, view the IBM Technology Zone Help page (<https://techzone.ibm.com/help>). If you have an issue with the site, you can open a support case (https://ibmsf.force.com/ibminternalproducts/s/createrecord/NewCase?language=en_US). Alternatively, you can send an email to techzone.help@ibm.com. This contact information is also provided in the emails that you receive from IBM Technology Zone.

Bastion server and Red Hat OpenShift cluster login credentials

In the watsonx.ai Data Science and MLOps Installation and Provisioning Level 4 Hands-on Lab, you will perform installation steps from the Bastion server provided in this environment and from the Red Hat OpenShift Web Console. The instructions in your TechZone reservation include Reservation Details similar to the following image. The Reservation Details provide the necessary information to log in to the Bastion server, and to log in to the Red Hat OpenShift Web Console.

The screenshot shows a 'Reservation Details' page with the following sections:

- Bastion Server Login Credentials:**
 - API URL: <https://api.6878be408a3a4d1edcbc40a7.am1.techzone.ibm.com:6443>
 - Bastion Password: G6AudWm5
 - Bastion SSH connection: ssh itzuser@api.6878be408a3a4d1edcbc40a7.am1.techzone.ibm.com -p 40222
 - Bastion Username: itzuser
- OpenShift Web Console Login Credentials:**
 - Cluster Admin Username: kubeadmin
 - Cluster Admin Password: aCTR-2oiYY-vqvjX-AfBoe
 - OCP Console: <https://console-openshift-console.apps.6878be408a3a4d1edcbc40a7.am1.techzone.ibm.com>
 - OCP Version: 4.16
 - Public Load Balancer IP (for node port access 30000-32767): 169.63.78.77
 - vCenter: itzna-vc.na.cloud.techzone.ibm.com

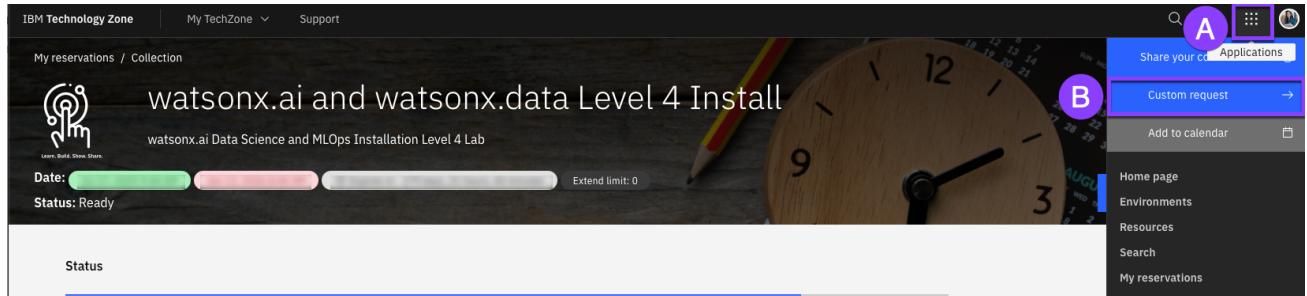
At the bottom, there is a blue button labeled "Download kubeconfig" with a downward arrow icon.

GPU Availability (optional for this lab)

This lab uses a TechZone image and typically no GPU is made available for the cluster. Because of that when you eventually deploy watsonx.ai there are certain features not available (for example, prompt tuning and Custom Foundation Models). In the watsonx.ai Data Science and MLOps Installation and Provisioning Level 4 Hands-on Lab, you install watsonx.ai without GPUs. Complete the following instructions if you are trying to install in an environment with GPUs.

You can reserve a TechZone environment with GPU. Complete the following steps to create a custom request for GPUs in TechZone.

- Once you have selected the TechZone image, click the Applications icon (A). Click **Custom request** (B) on the slide-out panel.



- Follow the instructions to reserve.

Note: You need an opportunity number to request GPUs for your environment.

If you can secure GPU, then there are additional steps not covered in the watsonx.ai Data Science and MLOps Installation and Provisioning Level 4 Hands-on Lab.

