

IBM watsonx.ai

Proof of Experience
environment setup
for watsonx.ai,
Watson Discovery,
and watsonx Assistant

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1. Proof of Experience (PoX) with watsonx.ai

Watsonx.ai is IBM's generative AI and data platform. In a Proof of Experience (PoX) engagement a client is expecting sellers to demonstrate what watsonx.ai (and generative AI) can do to solve their business requirements. While a PoX is not always necessary, there will be times when a client needs to experience it; after all, seeing is believing.

A watsonx.ai PoX can involve various cloud services, depending on what a sales team is trying to prove to the client. There are lots of combinations and variations. This document describes how to set up some of the most common environments. Specifically:

- IBM watsonx.ai (using the IBM Technology Sales TechZone pattern)
- IBM watsonx.ai + Watson Discovery + watsonx Assistant (using the IBM Technology Sales TechZone pattern)
- REST API access for when a client wants to use their own applications (this path does not require a TechZone pattern)

For the most part, sellers will use TechZone for a PoX. There are different types of reservations you can select in TechZone, and your choice will depend on what is required for the PoX. Options include:

- **Practice/Self-Education** - Select this mode when you are personally trying to get familiar with the various watsonx services and want hands-on work from a lab, or when you are learning on your own. In this mode, the **watsonx.ai** environment is reserved for 2 days. You can extend this reservation in 2-day increments, twice, for a total of 6 days which should be sufficient for practice and learning purposes.
- **Client Demo** - You can use this mode for a simple client-facing demo. However, this is a pre-built, standardized configuration with minimal configuration. For this lab, it is recommended that you use the **Practice/Self-Education** mode instead of this mode.
- **Proof-of-Technology** - Use this when doing a PoX. You can reserve this for longer periods of time (throughout the PoX) so you can have ample time to set up, test, adjust, and rework the PoX, all without worrying that you will lose everything when the reservation time limit runs out.

1.1 Disclaimer

IBM watsonx.ai is being developed and released in an agile manner. In addition to adding new capabilities, its web interface is likely to change over time. Therefore, the screenshots used in this lab may not always look exactly like what you see. You can expect to encounter some of the following:

- Additional foundation models in the library list.
- Changes in the user interface (location of buttons, text for various fields, etc.)
- Additional tabs or buttons (especially when the Tuning Studio is rolled out)

These should not affect how this lab works, but have patience and explore.

There are three changes, however, that can affect your results:

- Foundation models can be very sensitive to input. If you enter slightly different text than what the exercise is using (even if it is just one single word), the outcome can be very different.
- Models in Watsonx.ai are constantly being re-instructed or tuned. If a model is updated, then some of the results may vary.
- The sample prompts may change (more can be added, or updated with new text). Since prompt examples are used heavily in this lab, this can affect what you might see in the model's output. To mitigate this, the expected prompt example text is provided in gray text boxes in this lab. If you select a prompt example and the prompt text is different, you might want to copy the text from the gray box and paste it into the prompt to get similar results as the lab.

Please raise any questions on the [#data-ai-demo-feedback](#) Slack channel (IBMer only). IBM partners can request help at the [Partner Plus Support](#) website.

1.2 Prerequisite

You will need an **IBM Cloud** account to gain access to the TechZone account that hosts the various Watson and watsonx services. Depending on your account status, follow the steps below before proceeding to section 2 to request a reservation.

Obtain 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, [Click this link](#) to create one. After registration, you will be sent an email to activate your account. This can take a few hours to process. Once you receive the confirmation email, follow the instructions provided in the email to activate your account.

2. Selecting your TechZone pattern

The instructions in this section describe what you see when you reserve a watsonx.ai TechZone environment for the first time. Some steps will be skipped if you extend your reservation, or if you reserve again.

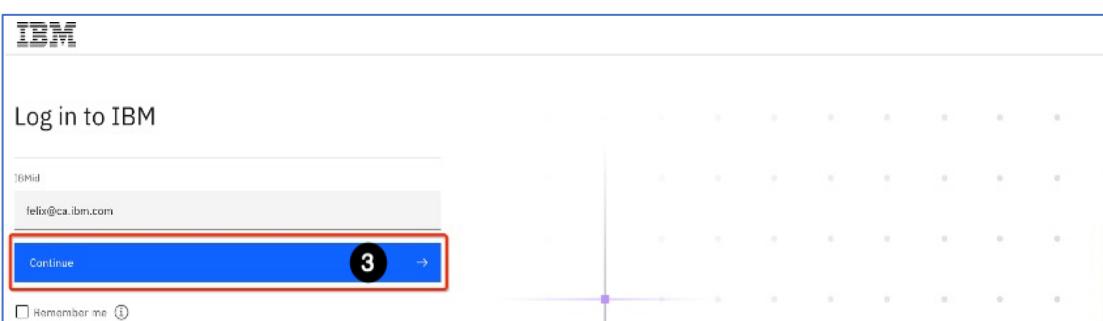
1. Go to the [IBM TechZone](#) website.

Note: Safari is not a supported browser, you should use Chrome, Edge, or Firefox (this lab was tested using Chrome).

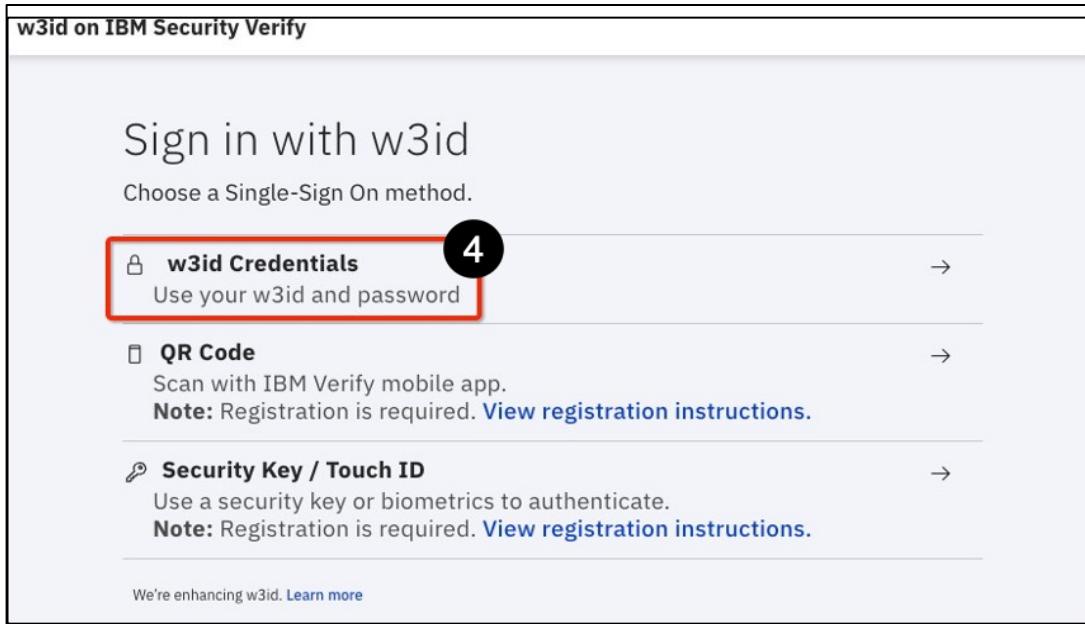
2. If you already have an IBMid, skip this section and go to Section 2.1. If you do not have one, click **Create an IBMid** and follow the instructions from the subsequent panels to create your IBMid... then go to the next step.



3. Provide your IBMid and click Continue.



4. If presented with this option, select the Single-Sign-On method.



5. Provide the necessary information (w3id and password, QR code, etc.) and sign in.

The next step depends on what you need to reserve from TechZone. If you only want to reserve a watsonx.ai environment, use the steps in Section 2.1. For a watsonx.ai + Watson Discovery + watsonx Assistant environment (what this lab is about), use the instructions in Section 2.2.

2.1. Reserving a TechZone Environment to PoX the watsonx.ai pattern

If you only need to demonstrate watsonx.ai (in Prompt Lab or Tuning Studio) then you can simply reserve the watsonx.ai pattern.

1. You should be logged into IBM TechZone.
2. Copy and paste the following HTTP address in the browser's search field (do not use the magnifying glass icon) and press Enter:

<https://techzone.ibm.com/collection/tech-zone-certified-base-images/journey-watsonx>

to be taken to the **TechZone Certified Base Images** page.

3. The **TechZone Certified Base Images – watsonx** page opens. On the left navigation menu select **watsonx** if it is not already selected.

4. Scroll down until you find the **watsonx.ai/.governance SaaS** section.
5. Click the **Reserve** button at the bottom.

SaaS Offerings - Available for Customer Demo and Proof-of-Technology purposes only.

Stand Alone Base Image - OpenShift-based image best suited for education and demo activities.

watsonx

Watsonx Data Developer Base Image

This image contains the required software and prerequisites that are needed to run the IBM watsonx.data software.

Watsonx Data

- Watsonx.data operator
- GA Version 1.0.0
- Deployed via OpenShift GitOps and OpenShift Pipelines

Infrastructure Details

- UPI - User Provided Infrastructure
- Cloud platform independent (Bare-metal simulation)

Self-service Options

- OCP version: 4.12, 4.13
- Cluster size: 3, 4, or 5 worker nodes
- Worker node "flavor" (CPUs x Memory): 4x16, 8x32, 16x64, 32x128
- FIPS: yes/no, (FIPS security features enabled on the nodes of the cluster)
- ODF (local disks) - either no (leave unchosen), or a storage size and options are 500GB, 2TB, 5TB

Visibility: IBMers, Business Partners

Reserve

Watsonx Data Standalone - OCP on VMWare

Watsonx.data Standalone - OCP on VMWare

Watsonx Data Standalone Login and Usage

This video will show you how to find your watsonx.data credentials, url login information and how to open the lakehouse portal.

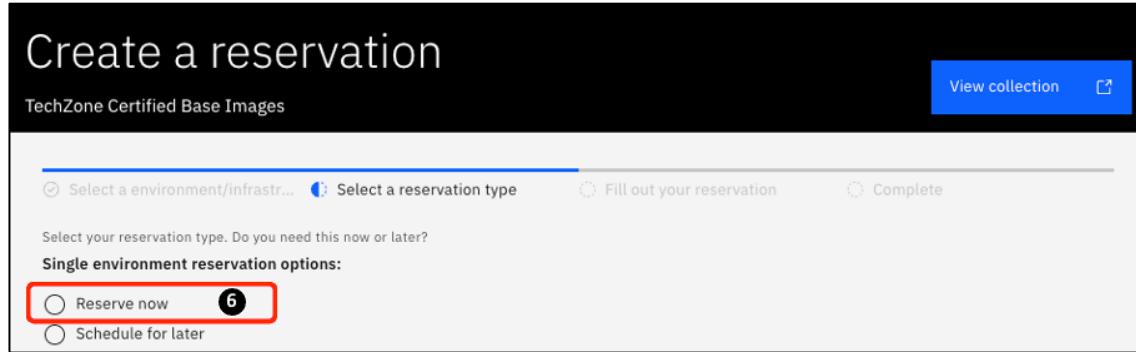
Watsonx.ai/.governance SaaS

Ibmcloud 2: eu-de, jp-tok, us-south, us-south, eu-de, jp-tok, us-south, eu-de, jp-tok

Dedicated or shared instances of watsonx.ai, watsonx.governance, WKC, COS, and optional DB2

Be sure to accept the IBM Cloud invitation to your correct itz-watsonx account on your first reservation of this. Consecutive reservations won't require you to accept the invite.

6. The **Create a reservation** page opens. Select the **Reserve now** radio button. If you are not ready to start, you can select the **Schedule for later** radio button – the steps that follow are the same either way.



7. Change the **Name** of this reservation to <your Name > watsonx.ai L4 SaaS.
8. In the **Purpose** section, select the **Practice/Self-Education** tile or **Proof-of-Technology** tile if you need to reserve a PoX environment.
9. In the **Purpose description**, box enter **Complete L4**.
10. The US-south region is used in this lab. Select **itz-watsonx- n -AMERICAS -us-south region – dal10 datacenter** from the **Preferred Geography** drop-down.

Note that TechZone will provision additional accounts as the number of TechZone users increases. You may see **itz-watsonx- 2**, **itz-watsonx- 3**, or **itz-watsonx- n** in general. In the following write-up, part of the lab, it is assumed that you use **itz-watsonx** (with no **n** value). If you pick **itz-watsonx- n**, then simply account for the choice in the lab exercises below.

Note: If there are a lot of reservation requests on the system, the reservation task might fail. If this happens, try again later, or try reserving using a different value for the **itz-watsonx- n** value. For example, if you initially used **itz-watsonx- 1** and it failed, try reserving using **itz-watsonx- 2**.

IBM Technology Zone | My library | Help

Create a reservation

TechZone Certified Base Images

View collection

1 Select a environment/infrastr... 2 Select a reservation type 3 Fill out your reservation 4 Complete

Name: felix watsonx.ai L4 SaaS **7**

Name this reservation. This will help identify it in your reservation list.

Purpose:

- Customer Demo**: Showcasing a pre-built, standardized product use case with minimal customization needed on the environment for a client demonstration. Aligns with 'Custom Demo' in IBM Sales Cloud.
- Practice / Self-Education**: Gaining experience with specific technology, product, or solution. **8**
- Proof-of-Technology**: Customizing an environment to set up and personalize beyond the pre-built option to showcase a specific customer use case. Typically these environments are needed for a longer period of time. Aligns with 'Proof of Value' in IBM Sales Cloud.
- Test**: Need to test a specific function, configuration, or customization.

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 an opportunity number: **9**

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

Purpose description:

Complete L4 Lab **9**

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

Preferred Geography:

itz-watsonx - AMERICAS - us-south region - da10 datacenter **10**

11. Scroll to the bottom part of the reservation page and fill in the **end date and time** field. The maximum you can select is 2 days from the current time, but it can be extended up to two times for a total of 4 more days. Your reservation period is longer if you select the **Proof-of-Technology** mode.
12. Click on the **Install Db2** drop-down and select **No**.
13. Optionally provide some additional notes in the **Notes** section.

Step 11: End date and time
Select a date: 11/19/2023
Select a time: 8:11 AM America/Toronto

Step 12: Install DB2?
No

Step 13: Notes
Enter any notes you would like to attach to this reservation

14. On the right-hand side at the bottom, accept the Terms and Conditions, then click **Submit**.

IBM Technology Zone | My library | Help

itz-watsonx - AMERICAS - us-south region - dal10 datacenter

End date and time
Select a date: 11/19/2023
Select a time: 8:11 AM America/Toronto

Reservation policy: Recommended 2 days, but can be reserved up to 2 days on this reservation form. Extend later for 2 days increments up to 4 days total. Max time 6 days total.

Install DB2?
No

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

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

Submit 14

15. A success message should appear in the top right. Next, an email will be sent to your IBMid email address immediately letting you know that your reservation is being provisioned. Once your watsonx.ai environment has been provisioned (typically within 10-15 minutes), you will receive a second email telling you that it is ready for use. This email looks like the example below. You will need to click on the **notifications page** link (highlighted in red below) to go to your reserved watsonx.ai environment.

Status Update: Ready

Your reserved environment is ready to use.

Reservation Name:
felix watsonx.ai L4 SaaS

Reservation ID:
[65576ed5514afd001785a6a5](#)

Step 1 - Getting Access:
This environment requires access to our TechZone owned IBM Cloud account where this environment is hosted. Please login to your IBM Cloud account and navigate to your [notifications page](#) to accept the invitation for accesss to the environment.

Step 2 - Navigate to your Reservation:
Select "View My Reservations" button to navigate to your reservations.

[View My Reservations](#)

Note: If there are a lot of reservation requests on the system, the reservation task might fail. If this happens, try again later, or try reserving using a different value for the **itz-watsonx-n** value. For example, if you initially used **itz-watsonx- 1** and it failed, try reserving using **itz-watsonx- 2**.

16. Clicking on the **notification page** link in the status update email brings you to a login page where you need to provide your IBMid (and may have to log in with your credentials if you have not already done so). Then you will see the **Action required** item (you may have more than one). Click on each one and find the one associated with the account you used to reserve (ie, **itz-watsonx-n**)

The screenshot shows the IBM Cloud Notifications page. At the top, there is a search bar and a catalog link. Below the header, there is a section titled "Notifications". Underneath, there is a table with two rows of notifications. Each row contains columns for "Account", "Action required", "Priority", and "Last updated". The first row is highlighted with a red box and has a circled number 15 above it, pointing to the "Action required" column. The second row is also visible below it.

Account	Action required: You are invited to join an account in IBM Cloud	Normal	10 Nov	Email
Account	Action required: You are invited to join an account in IBM Cloud	Normal	2 Nov	Email

17. Click the **Join now** link on the right.

The screenshot shows the IBM Cloud Notifications interface. It displays two notifications:

- Action required: You are invited to join an account in IBM Cloud** (Normal priority, 10 Nov)
IBM Technology Zone Adhoc 01 invited you to join the following IBM Cloud account: itz-watsonx-2 (Account ID: 8471af1899b34564b2b04be799f50d75).
- Action required: You are invited to join an account in IBM Cloud** (Normal priority, 2 Nov)

A red box highlights the **Join now** link in the first notification message, which is circled with the number 17.

18. **Note:** If you had previously applied and have accepted an invitation to the **itz-watsonx** account, you will not get another invite. However, if you did get the email noting that your reserved environment is ready, then you would be able to log in.

19. Use your IBMid to log in to the IBM Cloud login page. You are asked to join the TechZone account. Accept the Terms and Conditions, then click **Join Account**.

The screenshot shows the **Join IBM Cloud** page. It has three main sections:

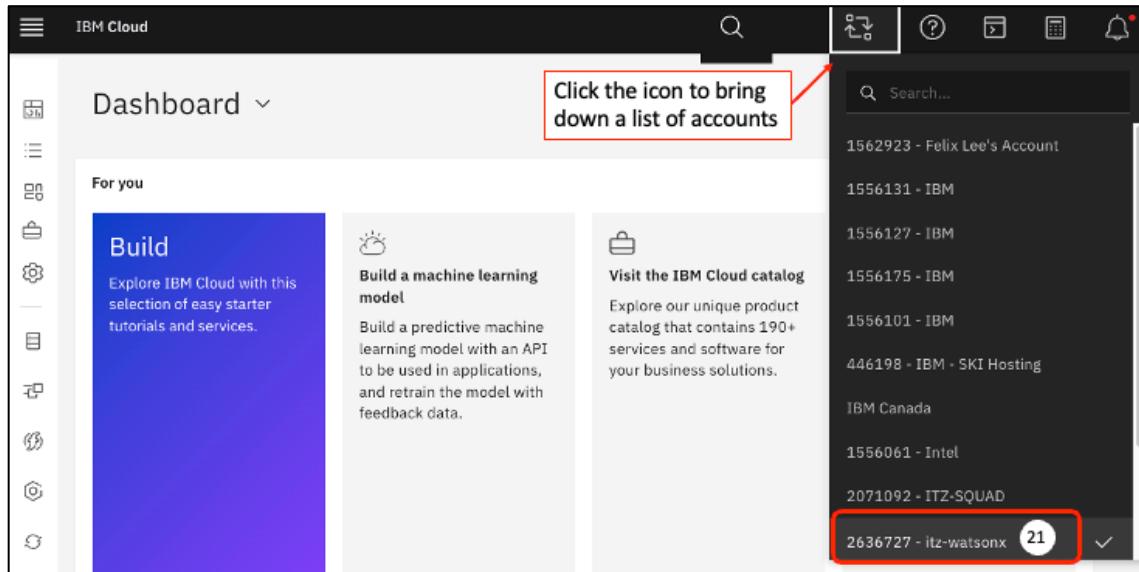
- Account information:** felix@ca.ibm.com
- Personal information:** Felix Lee, United States
- Account notice:** A checkbox labeled "I accept the product Terms and Conditions of this registration form." is checked, with a red box highlighting it. Below the checkbox is a "Join Account" button, also highlighted with a red box and circled with the number 19.

A large blue circular graphic on the right side of the page says "Build your journey to public cloud" and "Build, deploy, and manage solutions in IBM's public cloud."

20. Once logged in, ensure you are using the right account. If you accepted the TechZone invitation, you should have been added to an **itz-watsonx** (or **itz-watsonx-n** if you had chosen that) account. You should now be in that account. To verify, you should see this on the upper right.

The screenshot shows the IBM Cloud dashboard. At the top, the account name **2636727 - itz-watsonx** is displayed in the top right corner, highlighted with a red box and circled with the number 20.

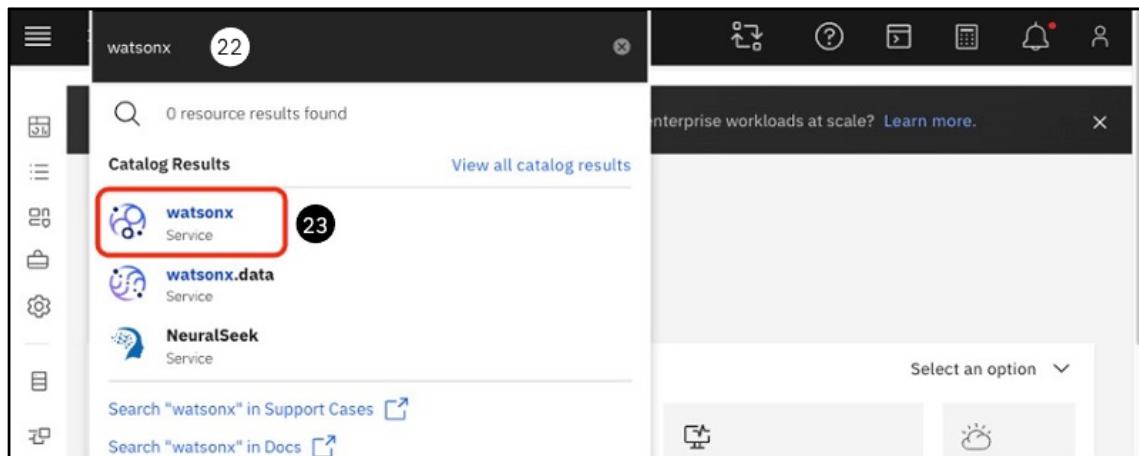
21. If that is not what you see, click the  icon to bring the dropdown list. Select the account that looks like <some number> - itz-watsonx (if you reserve under itz-watsonx- n, look for that account).



The screenshot shows the IBM Cloud dashboard. On the right side, there is a dropdown menu titled "Search..." with a list of accounts. A red box highlights the "dropdown icon" (three horizontal dots) at the top of the menu, with the text "Click the icon to bring down a list of accounts". Another red box highlights the account "2636727 - itz-watsonx" in the list, which has a notification badge with the number "21".

22. In the search field (at the top), enter **watsonx**.

23. The search returns a list like the following. Click **watsonx**.



The screenshot shows the IBM Cloud search results for "watsonx". The search bar at the top shows "watsonx" with a count of "22". The results are categorized under "Catalog Results". The first result, "watsonx" (Service), is highlighted with a red box and labeled "23". Other results include "watsonx.data" (Service) and "NeuralSeek" (Service). Below the catalog results, there are links to "Search 'watsonx' in Support Cases" and "Search 'watsonx' in Docs".

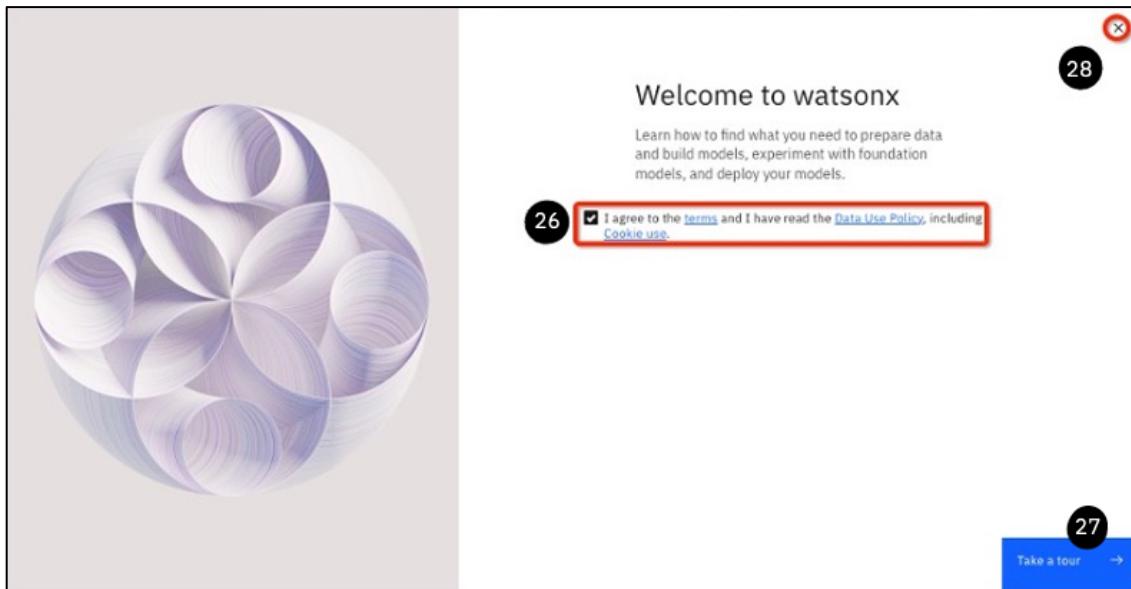
24. On the AI and data platform page, click **Launch** at the bottom of the **watsonx.ai** tile.

The screenshot shows the IBM Cloud interface with the "watsonx" service selected. The main content area features a large heading "Meet the AI and data platform that's built for business". Below it, a section titled "Watsonx combines the power of watsonx.ai studio for AI with the scale of watsonx.data store, enabling the creation of next-generation AI." is displayed. A central "watsonx capabilities" section contains a "watsonx.ai" tile, which is highlighted with a red border and has a "Launch" button at the bottom. To the right is a "watsonx.data" tile with a "Get started" button. The top navigation bar includes icons for search, refresh, help, and user profile.

25. The watsonx.ai console opens and you are ready to begin this lab.

The screenshot shows the IBM Watsonx AI console. The top header reads "IBM watsonx". The main area displays a welcome message "Welcome back, Felix". Below it, there is a section titled "Train, validate, tune and deploy AI models." with a "Customize my journey" button. To the right, there are four cards under the heading "Open in: Felix's sandbox": 1. "Experiment with foundation models and build prompts with Prompt Lab" (AI icon). 2. "Build machine learning models automatically with AutoAI" (AI icon). 3. "Work with data and models in Python or R notebooks with Jupyter notebook editor" (AI icon). 4. "Prepare and visualize data with Data Refinery" (AI icon). At the bottom right, there is a "Collapse" button.

26. You might see a welcome page (if you don't skip the next few steps). Select the checkbox to agree to the terms.
27. Optionally click on the **Take a tour** button on the bottom-right to take a tour of watsonx.ai.
28. For this lab, dismiss the welcome message by clicking on the “x” on the top right to close this window.



29. Click on the **Experiment with foundation models and build prompts** tile. The watsonx **Welcome** page opens.
30. You need to create a **sandbox** project. Click on the **Create a sandbox project** button in the **Projects area**. This creates a project with the necessary services associated with it. It takes a few minutes to create the sandbox project, so be patient.

The screenshot shows the IBM WatsonX dashboard. At the top, there's a banner with the text "Welcome back, Felix". Below it, a section titled "Train, validate, tune and deploy AI models." includes a "Customize my journey" dropdown. A callout box highlights the text: "Once you create a sandbox project or migrate projects, you will be able to open a task directly in your project and start working." In the center, there are four cards: "Experiment with foundation models and build prompts with Prompt Lab" (AI icon), "Build machine learning models automatically with AutoAI" (AI icon), "Work with data and models in Python or R notebooks with Jupyter notebook editor" (AI icon), and "Prepare and visualize data with Data Refinery" (AI icon). Below this is a navigation bar with links like "Jump back in", "Recently visited pages", "Home / Projects", "Projects / Felix's sandbox", "Felix's sandbox / Prompt Lab", and "Projects / Felix's manually created sandbox". The main content area is titled "Recent work" and contains sections for "Projects" and "Deployment spaces". The "Projects" section has a "Quick start" card with the text "Create a sandbox project" and a blue button labeled "Create a sandbox project" which is highlighted with a red box and has a "30" notification badge. The "Deployment spaces" section shows a rocket icon and the text "After you create or join spaces, they will appear here.".

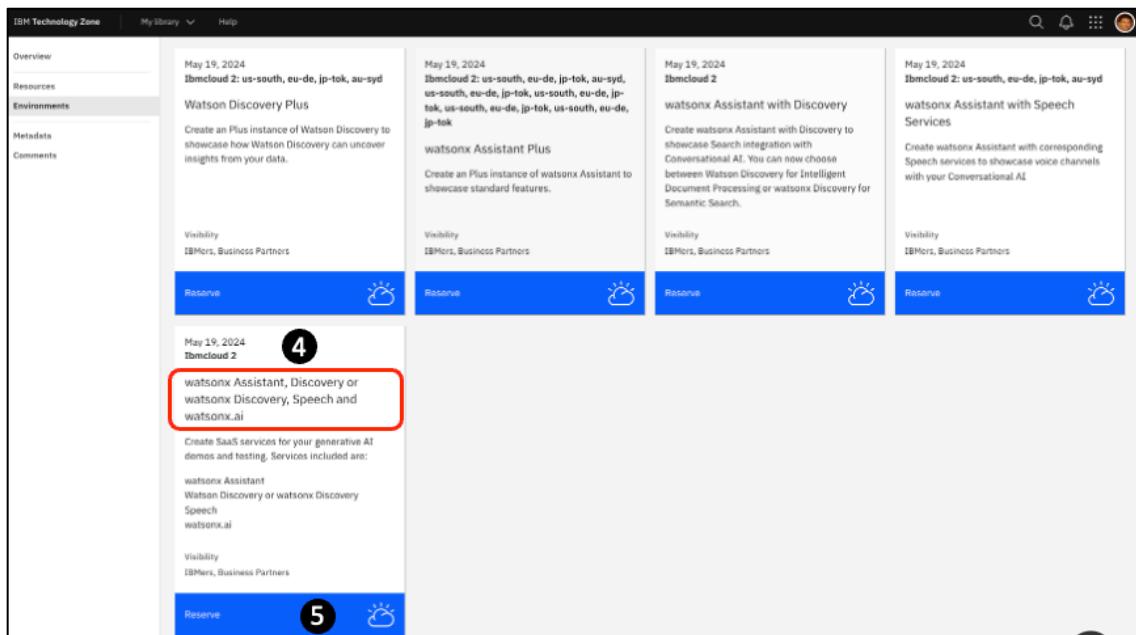
31. You see the sandbox project in the **Projects** area. You are now ready to proceed with the lab.

This screenshot shows the same IBM WatsonX dashboard as the previous one, but with a different view. The "Recent work" section is now visible, showing the "Projects" and "Deployment spaces" sections. The "Projects" section has a card for "Felix's sandbox" which is highlighted with a red box and has a "31" notification badge. The "Deployment spaces" section is also visible.

2.2 Reserving the watsonx.ai + Watson Discovery + watsonx Assistant pattern

The steps in this section are almost identical to those of Section 2.1, except for the first few steps where you locate the proper pattern to use. Here are the different steps.

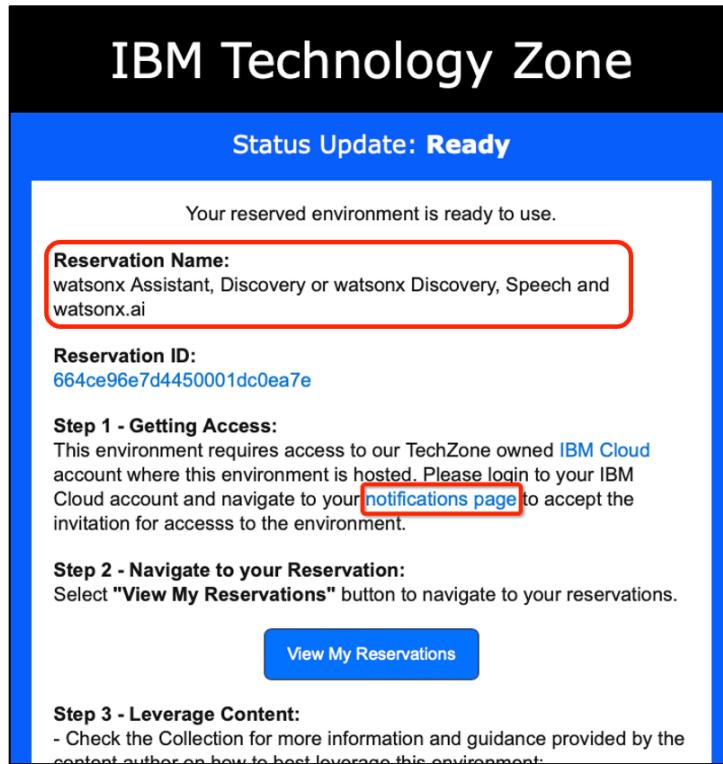
1. Go to the [IBM TechZone](#) website and log in if required.
2. Copy and paste the following HTTP address in the browser's search field (do not use the magnifying glass icon) and press **Enter**:
<https://techzone.ibm.com/collection/watson-enterprise/environments>
3. The **Watson Applications Environments** page opens.
4. Scroll down until you find the **watsonx Assistant, Discovery or Watsonx Discovery, Speech and watsonx.ai** tile (highlighted in red below).
5. Click **Reserve**.



From Step 6 onwards to Step 20, the flow is almost identical to those outlined in Section 2.1 with a few minor exceptions. Here are the differences:

- **Step 15.** You might not get an immediate email that tells you TechZone is trying to provision an environment. You will get an email when the provision is completed (if it failed, simply retry).

- The email you get is also slightly different. You need to click the [notification page](#) link to access the invitation. It looks like this:



Your **watsonx Assistant, Discovery or Watsonx Discovery, Speech and watsonx.ai** environment is set up and ready to use.

3. Selecting a different reservation mode

The **Practice/Self-Education** mode will reserve a watsonx.ai TechZone environment for 2 days. You can extend this reservation in 2-day increments twice – for a total of 6 days. This may be sufficient for doing some prep work or pre-testing, but it is not likely enough for a PoX (unless you are just doing a demo).

For a PoX, you should reserve your watsonx.ai environment in the **Proof of Technology** mode, but note that this mode requires a valid **Opportunity number**.

To book a TechZone for a Proof of Experience (Pox), (for watsonx.ai or watsonx Assistant + Watson Discovery + watsonx.ai), select the **Proof of Technology** tile and provide the appropriate Opportunity number:

Create a reservation

TechZone Certified Base Images

View collection

Complete

Select a environment/infrastructure

Select a reservation type

Fill out your reservation

Name

watsonx.ai SaaS

Name this reservation. This will help identify it in your reservation list.

Purpose

Customer Demo
Showcasing a pre-built, standardized product use case with minimal customization needed on the environment for a client demonstration. Aligns with 'Custom Demo' in IBM Sales Cloud.

Proof-of-Technology
Customizing an environment to set up and personalize beyond the pre-built option to showcase a specific customer use case. Typically these environments are needed for a longer period of time. Aligns with 'Proof of Value' in IBM Sales Cloud.

Practice / Self-Education
Gaining experience with specific technology, product, or solution.

Test
Need to test a specific function, configuration, or customization.

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 an opportunity number

Specify an opportunity id [Reference IBM Sales Cloud opportunity number, Gainsight Relationship ID, or a Project Work ID runbook](#) for guidance on the code needed in this field.

A PoX TechZone environment in the **Proof-of-Technology** mode can be reserved for 7 days and you can extend it up to 5 times (in 7 days increments) for a total maximum of 42 days.

Even though this is a fairly long period, you should plan your PoX steps well (and probably test using the Practice/Self-education mode) before using the Proof of Technology reservation.

Appendix A. Revision History

Date	Changes
-	Original version.