

Lab 1: Setup and Configure

Lab 1 – Tasks

- [Create environments](#)
- [Configure Azure DevOps repository](#)
- [Enable Native Git Integration](#)

Task 1 - Create Environments

Create three environments

1. Navigate to <https://admin.powerplatform.microsoft.com/environments>
2. Login using the workshop account on your desk
3. When prompted, change your password



user05@ppccworkshop11.onmicrosoft.com

Update your password

You need to update your password because this is the first time you are signing in, or because your password has expired.

.....

.....

.....|

Sign in

Power Platform admin center

Environments

An [environment](#) is a space to store, manage, and share your organization's business data, apps, chatbots, and flows. When an environment is [managed](#), it a control.

Environment		Type	State	Dataverse	Managed
user01Prod	...	Developer	Ready	Yes	No
user01Test	...	Developer	Ready	Yes	No
user01Dev	...	Developer	Ready	Yes	No
Admin 2	...	Trial (25 days remaining)	Ready	Yes	No
Admin Acct Host	...	Trial (subscription-based)	Ready	Yes	No
PPCCWorkshop11 (default)	...	Default	Ready	No	No

2. Click **+New** to open the environment creation side panel.

Give the environment a name (suggested *userXXdev1* where userXX corresponds to your username provided for the workshop).


Enable the **Get new features early** option. This is ***CRITICAL*** for this lab as the source code and other features are limited to the early release cycle.

Change the environment type to **Developer**. This will also ensure that you have a Dataverse database provided as well.

Note: For the purpose of this lab it is important for you to pick this type as you need to leverage the license ability to create three personal environments for your user as the tenant does not have the capacity to provision a number of sandbox or production environments.

3. Complete the environment creation by clicking **Next** then on the next panel, click **Save**.

New environment

 This operation is subject to [capacity constraints](#)

Name *

user02dev1


Group

Choose a group

Region *

United States - Default

A local region can provide quicker data access

Get new features early 

☒ Yes

Type  *

Developer


Purpose

Describe the environment's purpose

Add a Dataverse data store? 

☐ Yes

Dataverse must always be added for the selected type: Developer

Pay-as-you-go with Azure? 


☐ No

Only environments of type Production and

Next

Cancel

Add Dataverse

 This operation is subject to [capacity constraints](#)

Language *

English (United States)

Default language for user interfaces in this environment

Currency *

USD (\$)

Reports will use this currency

URL

A unique domain name will be generated.
Click [here](#) to enter a custom domain

Deploy sample apps and data?

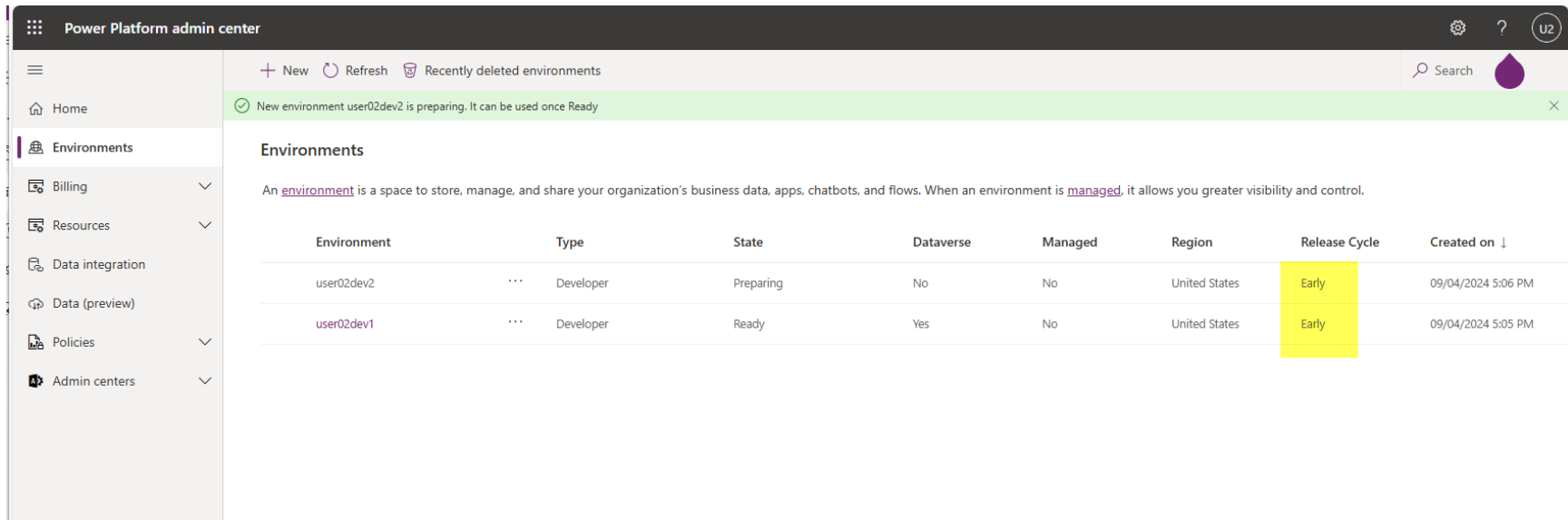
☐ No

Save

Cancel

4. Create a second development environment using the above process. For the second environment, use the exact same settings but give it a unique name such as UserXXdev2.

Verify that both environments were created successfully AND that the Release Cycle is set to Early.



The screenshot shows the Power Platform admin center interface. A green notification banner at the top states: "New environment user02dev2 is preparing. It can be used once Ready". Below this, the "Environments" section is displayed. It includes a descriptive text: "An [environment](#) is a space to store, manage, and share your organization's business data, apps, chatbots, and flows. When an environment is [managed](#), it allows you greater visibility and control." Below the text is a table with the following data:

Environment	Type	State	Dataverse	Managed	Region	Release Cycle	Created on ↓
user02dev2	Developer	Preparing	No	No	United States	Early	09/04/2024 5:06 PM
user02dev1	Developer	Ready	Yes	No	United States	Early	09/04/2024 5:05 PM

5. Create a third environment using the above process. For the third environment, use the exact same settings but give it a unique name such as UserXXProduction. While this environment must be a developer type due to licenses in this tenant, we'll pretend it's a production environment you'll deploy to in lab 3.

You should now have **three environments**. Two will be used for development and the other for production.

Configure Azure DevOps Repository

Navigate to <https://dev.azure.com/> and click on the Start free button.


← ↻ <https://azure.microsoft.com/en-us/products/devops/?nav=min> 🔊 ☆ 📄 ☆ 📌 🔄 ...

Microsoft | **Azure** Explore ▾ Products ▾ More ▾ 🔍 Learn Support Contact Sales [Get started with Azure](#) [Sign in](#)

Azure DevOps

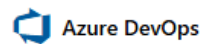
Plan smarter, collaborate better, and ship faster with a set of modern dev services.

[Start free](#) [Explore GitHub Enterprise](#)



[Overview](#) [Features](#) [Security](#) [Get started](#)

Sign in if you are prompted. The next screen should be your initial DevOps experience. Click Continue.



user02@PPCCWorkshop11.onmicrosoft.com

Get started with Azure DevOps

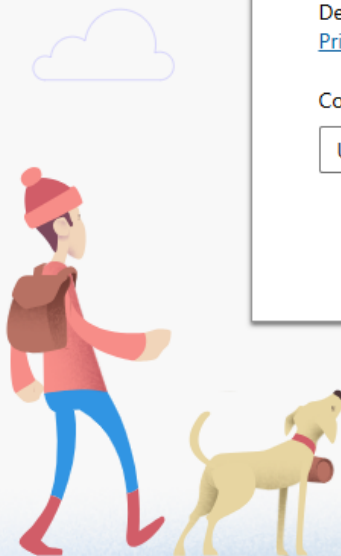
Choosing **Continue** means that you agree to our [Terms of Service](#), [Privacy Statement](#), and [Code of Conduct](#).

I will receive information, tips, and offers about Azure DevOps and other Microsoft products and services. [Privacy Statement](#).

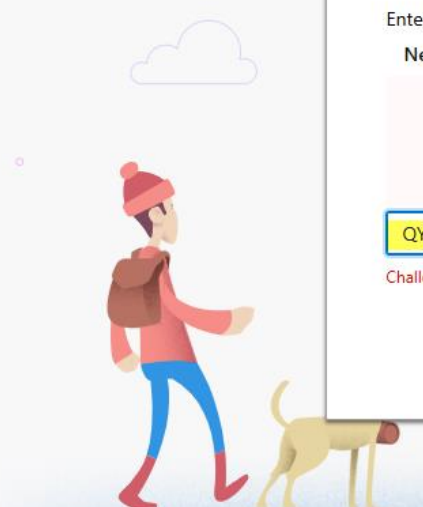
Country/region


United States

Continue



You will have to create an Azure DevOps organization. The experience will suggest a name for you based on your username. Review that and enter the captcha challenge and click the **Continue** button.



 Azure DevOps

user02@PPCCWorkshop11.onmicrosoft.com

Almost done...

Name your Azure DevOps organization *

dev.azure.com/ user020606

We'll host your projects in

United States

Enter the characters you see

New Audio

QY6
RLP

QY6RLP

Challenge validation failed, please try again

Continue

After your organization is created, you will be prompted to create a Azure DevOps project. Enter a project name and click the **Create project** button.

The screenshot shows the Azure DevOps web interface for a user named 'user020606'. The main heading is 'Create a project to get started'. The form includes the following fields:

- Project name ***: A text input field containing 'Dataverse Development'.
- Description**: A text input field that is currently empty.
- Visibility**: Two radio button options. The 'Public' option is disabled, and the 'Private' option is selected. The 'Private' option description states: 'Only people you give access to will be able to view this project.'

Below the visibility options, a message states: 'Public projects are disabled for your organization. You can turn on public visibility with [organization policies](#).'

At the bottom of the form, there is a section labeled 'Advanced' and a blue button with a plus sign and the text '+ Create project', which is highlighted by a red rectangular box.

Your next step will be to create and initialize a repository. On the project page, click the **Repos** link.

Azure DevOps user020606 / Dataverse Development / Overview / Summary

Search

Dataverse Development +

Overview

Summary

Dashboards

Wiki

Boards


Repos

Pipelines

Test Plans

Artifacts

Dataverse Development Private Invite



Welcome to the project!

What service would you like to start with?

Boards Repos Pipelines Test Plans

Artifacts

[or manage your services](#)

Then scroll to the bottom of the page and click the **Initialize** button to initialize the repo with a readme file.

Azure DevOps / Dataverse Development / Repos / Files / Dataverse Development

Dataverse Development +

- Overview
- Boards
- Repos
- Files
- Commits
- Pushes
- Branches
- Tags
- Pull requests
- Advanced Security
- Pipelines
- Test Plans
- Artifacts
- Project settings

Dataverse Development is empty. Add some code!

Clone to your computer

HTTPS **SSH** `https://user020606@dev.azure.com/user020606/Dataverse%20Devel` OR **Clone in VS Code**

Generate Git Credentials

Having problems authenticating in Git? Be sure to get the latest version [Git for Windows](#) or our plugins for [IntelliJ](#), [Eclipse](#), [Android Studio](#) or [Windows command line](#).

Push an existing repository from command line

HTTPS **SSH**

```
git remote add origin  
https://user020606@dev.azure.com/user020606/Dataverse%20Development/_git/Dat
```

Import a repository

Import

Initialize main branch with a README or gitignore

☒ Add a README **Add a .gitignore: None** **Initialize**

Configure Git Integration on your dev1 environment

Important! Today you'll be working with Native Git Integration, which is a new capability and **not yet available publicly**. Make sure to use the **below URL**. Otherwise these capabilities will be hidden.

Disclaimer: You shouldn't use preview features in production. This lab is for educational purposes only.

1. Open a new tab and log into the <https://make.powerapps.com/?powerappsAlmSourceControl.enableAlmSourceControl=true> using your **workshop credentials**.
2. Use the environment selector and make sure you're in your dev1 environment.


The screenshot shows the Power Apps web interface. The left navigation bar has 'Solutions' highlighted. The main content area features a 'Let's build an app. W' header with buttons for 'Collect RSVPs', 'Track sales leads', and 'List'. A 'Select environment' panel on the right lists environments: 'user02dev1' (highlighted with a red box), 'user02dev2', and 'PPCCWorkshop11 (default)'. A dropdown menu for 'Environment type' is open, showing 'Developer' selected. A 'Need your own environment? (It's free.)' banner is also visible.

Click on the **Solutions** area in the left navigation bar, then click on the **Connect to Git** button in the command bar.

Power Apps Search Environment user02dev1

+ New solution ← Import solution Open AppSource Publish all customizations Set preferred solution See history **Connect to Git** ...

Solutions

 **Set your preferred solution**
Select where your updates will be saved so your work stays organized.

Current preferred solution
Common Data Services Default Solution
[Manage](#)

Unmanaged Managed All


Display name ▾	Name ▾	Created ↓ ▾	Version ▾	Publisher ▾	Solution check	Source control
Common Data S	Cr42513	1 week ago	1.0.0.0	CDS Default Publ...	Hasn't been run	⊗ Unsupp
Default Solution	Default	1 week ago	1.0	Default Publisher...	Not supported for analy...	⊗ Unsupp

From here you will connect your Dataverse environment to your Git repository. Select **Environment** as the connection type, and select your Azure DevOps Organization, Project, Repository, and Branch using the dropdown menus. Enter a new folder name for this environment and click the **Connect** button.

Connect to Git



You can connect this environment to a Git repository via Microsoft Azure DevOps.

 Solutions developed with source control integration can only be used within Managed Environments. [Learn more](#)

Connection type *

☒ Environment

☐ Solution

Connect all solutions in this environment to the same repository, branch and folder in source control.

Organization *

user020606

Select an organization to connect to Git.

Project *

Dataverse Development

Select a project from your selected organization.

Repository *


Dataverse Development

Select a Git repository from your selected project.

Branch *

main

Select a branch from your selected Git repository.

 Create new branch

Git folder *

user02

Enter an existing folder from your selected Git repository or create a new one.

Connect

Cancel

At this point in time, your environment is now bound to Git. Any unmanaged solution changes will now be available to commit to Git. Let's test this by creating an empty solution and doing an initial commit.

Click the **New Solution** button on the command bar.

The screenshot shows the Power Apps interface. The top navigation bar includes 'Power Apps', a search bar, and the environment 'user02dev1'. The left sidebar contains navigation options: Home, Create, Learn, Apps, Tables, Flows, Solutions (highlighted), and More. The main content area is titled 'Solutions'. In the command bar, the 'New solution' button is highlighted with a red box. Below the command bar, there's a 'Set your preferred solution' card with a 'Manage' button. A filter bar shows 'Unmanaged' (selected), 'Managed', and 'All'. A table lists the solutions:

Display name	Name	Created	Version	Publisher	Solution check
Common Data S	Cr42513	1 week ago	1.0.0.0	CDS Default Publ...	Hasn't been run
Default Solution	Default	1 week ago	1.0	Default Publisher...	Not supported for analy...

Use your username in the display name and name.

New solution



Display name *

Name *

Publisher *



+ New publisher

Version *

More options 

Click **New publisher** to create a publisher record. Use your workshop user's name for Display name, Name, and Prefix.

Note: many organizations use different naming conventions to identify solutions. We've chosen this format so that it's easy to differentiate your solution from others later.

New publisher



Publishers indicate who developed associated solutions. [Learn more](#)

Properties Contact

Display name *

Name *

Description

Prefix *

Choice value prefix *

Preview of new object name

user05_Object

Save the publisher.

Select the publisher record you just created and click the **Create** button to create your solution.

The screenshot shows the Power Apps interface with the 'New solution' dialog box open. The dialog box has the following fields and options:

- Display name ***: User05
- Name ***: User05
- Publisher ***: User05 (User05) (highlighted with a red box)
- Version ***: 1.0.0.0
- More options**: (dropdown arrow)
- Buttons**: Create (highlighted with a red arrow), Cancel

In the background, the 'Solutions' page is visible, showing a table of existing solutions:

Display name	Name	Created	Version
Common Data Servi	C42513	2 weeks ago	1.0.0.0
Default Solution	Default	2 weeks ago	1.0

Locate your solution and click to edit it.

Power Apps Search Environment user02dev1

+ New solution Edit Delete Export solution Deploy Solution checker Show dependencies

Solutions

Set your preferred solution
Select where your updates will be saved so your work stays organized.

Current preferred solution
Common Data Ser Solution
[Manage](#)

Unmanaged Managed All

Display name ▾	Name ▾	Created ↓ ▾	Version ▾	Publisher ▾
✓ Sample	⋮ Sample	1 minute ago	1.0.0.0	Contoso
Common Data S	⋮ Cr42513	1 week ago	1.0.0.0	CDS Default Publ...
Default Solution	⋮ Default	1 week ago	1.0	Default Publisher...

Click on the source control button on the bottom of the left panel, then click the **Check for updates** button in the command bar to refresh the screen. You will see your solution and publisher available to commit to your repository.

If you don't see the source control option in the left navigation, make sure you enable the feature using the URL format <https://make.powerapps.com?powerappsAlmSourceControl.enableAlmSourceControl=true>

Microsoft

Power Apps

Search

Environment
shan-git1

Commit

Check for updates

Git Connection

Update Successful.

Source control

PREVIEW

When ready, commit your changes to Git. Check for updates to pull others' changes into this environment. To collaborate across environments, connect them to the same Git location. [Learn more.](#)

Current branch

main

Changes (2)

Updates (0)

Conflicts (0)

Items in this list are changes in your environment that need to be committed to this branch.

Display name	Name	Object	Git Operation
Sample	Sample	Solution	Create
contoso	contoso	Publisher	Create

Click the **Commit** button in the command bar and enter a comment and click the **Commit** button to complete the operation.

Commit



Review and write a comment about the item you are committing.

Comment *

creating empty sample solution

Commit to branch

main

Commit



Cancel

You will see a new notification on the commit bar when the operation is completed. Click on the commit id to see the details in Azure DevOps.

The screenshot shows the Microsoft Power Apps interface. At the top, there is a black header bar with the Microsoft logo, the text "Power Apps", and a search bar. Below the header, a light gray bar contains icons for "Commit", "Check for updates", and "Git Connection". A green notification bar displays "Update Successful." and "Commit Successful." with the commit ID "67542a40" highlighted in a red box. The main content area is titled "Source control" with a "PREVIEW" tag. It includes instructions on committing changes to Git and a link to "Learn more.". Below this, the "Current branch" is listed as "main". A section for "Changes (0)", "Updates (0)", and "Conflicts (0)" is shown, with "Changes (0)" underlined. A note at the bottom states: "Items in this list are changes in your environment that need to be committed to this branch."

You can now see the source files that were created in that commit. You should see a new publisher and solution. The solution will be in its own folder and will have a number of different files representing the solution components and dependencies.

Creating sample solution

d98d676f  Shan McArthur committed Just now  main

[Browse Files](#)

Files Details

Parent 1 → This commit

Filter

5 changed files


Inline




SCValidation

shn1


publishers/Contoso


`</>` publisher.xml 

solutions/Sample

`</>` missingdependencies.xml 

`</>` rootcomponents.xml 

`</>` solution.xml 

`</>` solutioncomponents.xml 

`</>` publisher.xml +69
/shn1/publishers/Contoso/publisher.xml

View

```
1 + <Publisher>
2 +   <UniqueName>Contoso</UniqueName>
3 +   <LocalizedNames>
4 +     <LocalizedName description="Contoso" languagecode="1033" />
5 +   </LocalizedNames>
6 +   <Descriptions />
7 +   <EmailAddress xsi:nil="true" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"></EMa
8 +   <SupportingWebsiteUrl xsi:nil="true" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instanc
9 +   <CustomizationPrefix>contoso</CustomizationPrefix>
10 +   <CustomizationOptionValuePrefix>33065</CustomizationOptionValuePrefix>
11 +   <Addresses>
12 +     <Address>
13 +       <AddressNumber>1</AddressNumber>
14 +       <AddressTypeCode>1</AddressTypeCode>
15 +       <City xsi:nil="true" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"></City>
16 +       <County xsi:nil="true" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"></Count
17 +       <Country xsi:nil="true" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"></Cour
18 +       <Fax xsi:nil="true" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"></Fax>
19 +       <FreightTermsCode xsi:nil="true" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instanc
20 +       <ImportSequenceNumber xsi:nil="true" xmlns:xsi="http://www.w3.org/2001/XMLSchema-ins
21 +       <Latitude xsi:nil="true" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"></Lat
22 +       <Line1 xsi:nil="true" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"></Line1>
23 +       <Line2 xsi:nil="true" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"></Line2>
```