WorkshopPLUS - Essentials on Azure DevOps Services and GitHub

Lab Guides

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Module 2: Projects

Lab 1: Projects

Introduction

In this lab, you will learn to perform operations and activities related to creating projects as well as viewing and changing settings for those projects. You will also create an organization which is a container for projects in Azure DevOps Services.

Exercise 1: Manage Organizations

Exercise 2: Manage Projects

Exercise 3: Project Security

Exercise 4: Working with Teams

Exercise 5: Create and Customize Inherited Process

Exercise 6: Project Notifications

Objectives

After completing this lab, you will be able to:

- Create new Organizations.
- Create new Projects.
- Explore the Teams feature.
- Create an inherited process template and customize inherited process to create default behaviors when creating new projects.
- Create and manage notifications.

Prerequisites

- None

Estimated Time to Complete This Lab

30 minutes

For More Information

Plan your Organization Structure
Create a New Project in Azure DevOps

Exercise 1: Manage Organizations

Objectives

After completing this exercise, you will be able to:

- Create an organization as a container for your projects

Prerequisites

- None

Scenario

In this exercise, you will learn how to create an organization.

Tasks

1. Task 1: Create Azure DevOps organization

Module 2: **Projects**, **Lab 1: Projects**, Exercise 1: Manage Organizations

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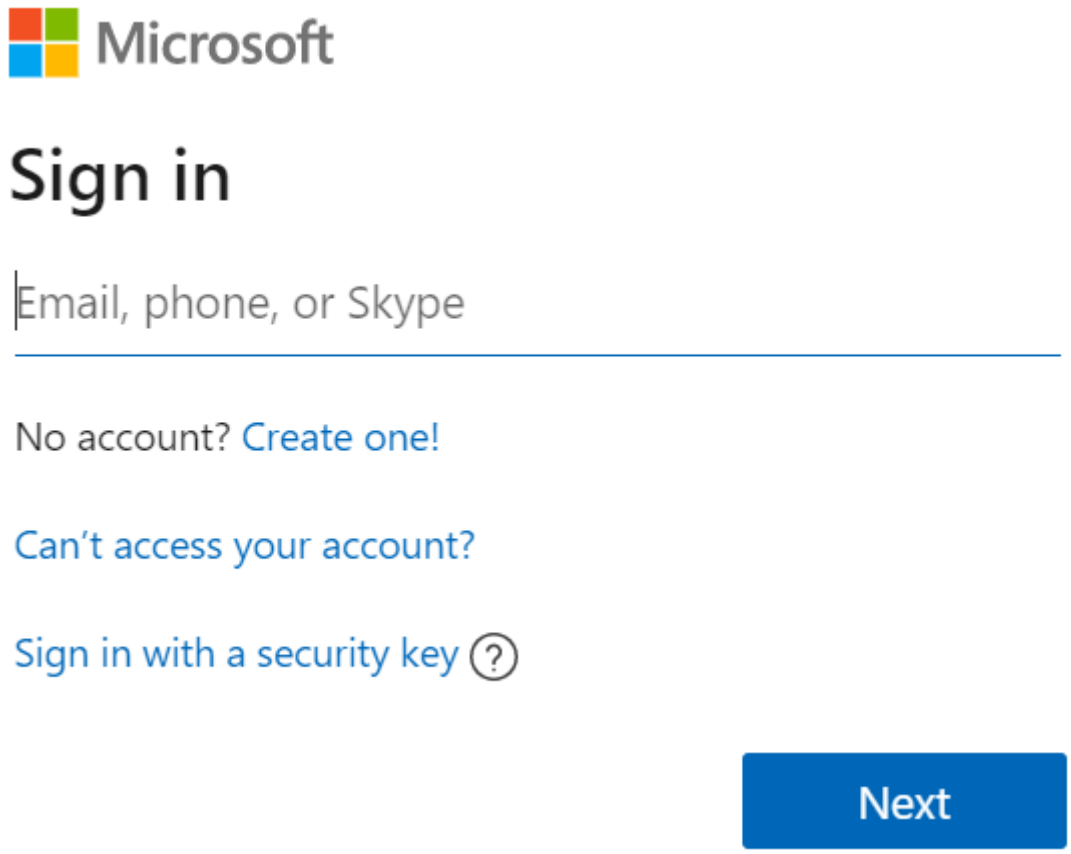
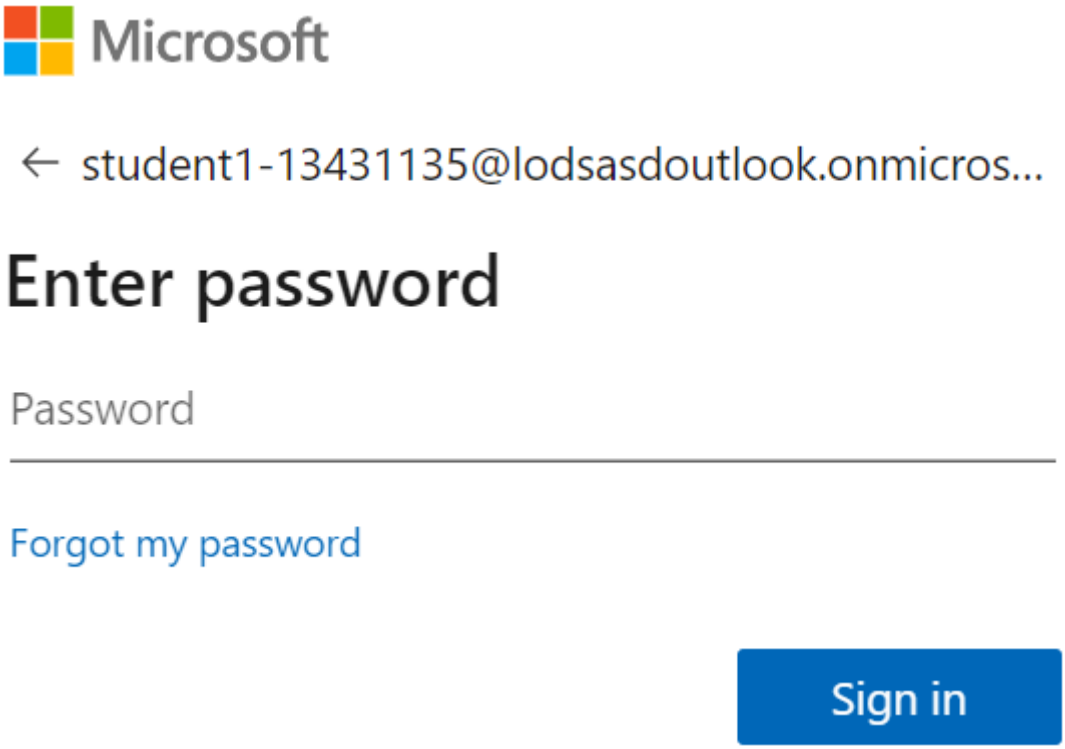
Task 1: Create an Organization

1. Open your browser and navigate to https://aex.dev.azure.com.

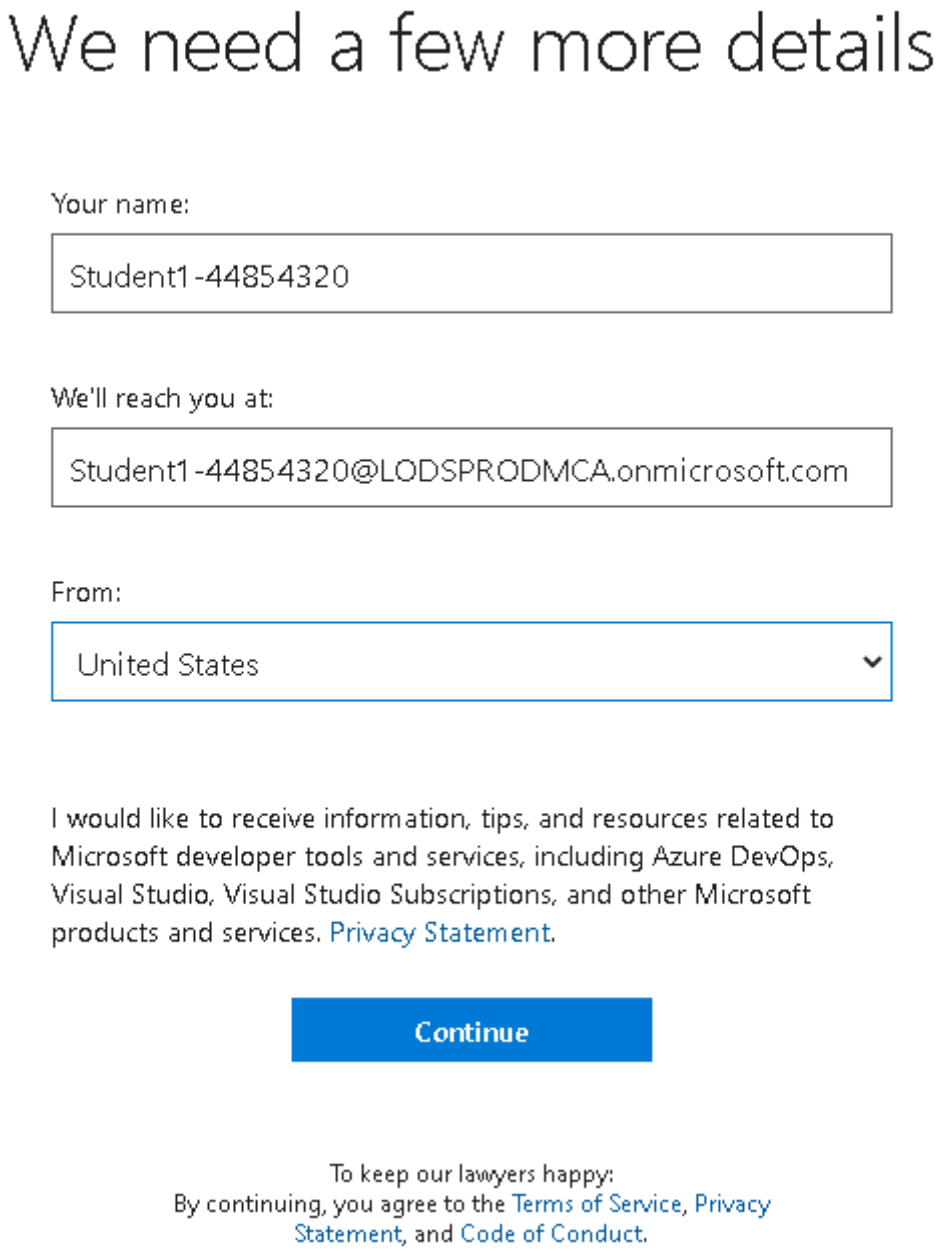
2. When presented the **Sign in** page, enter your username, then click on the **Next** button.



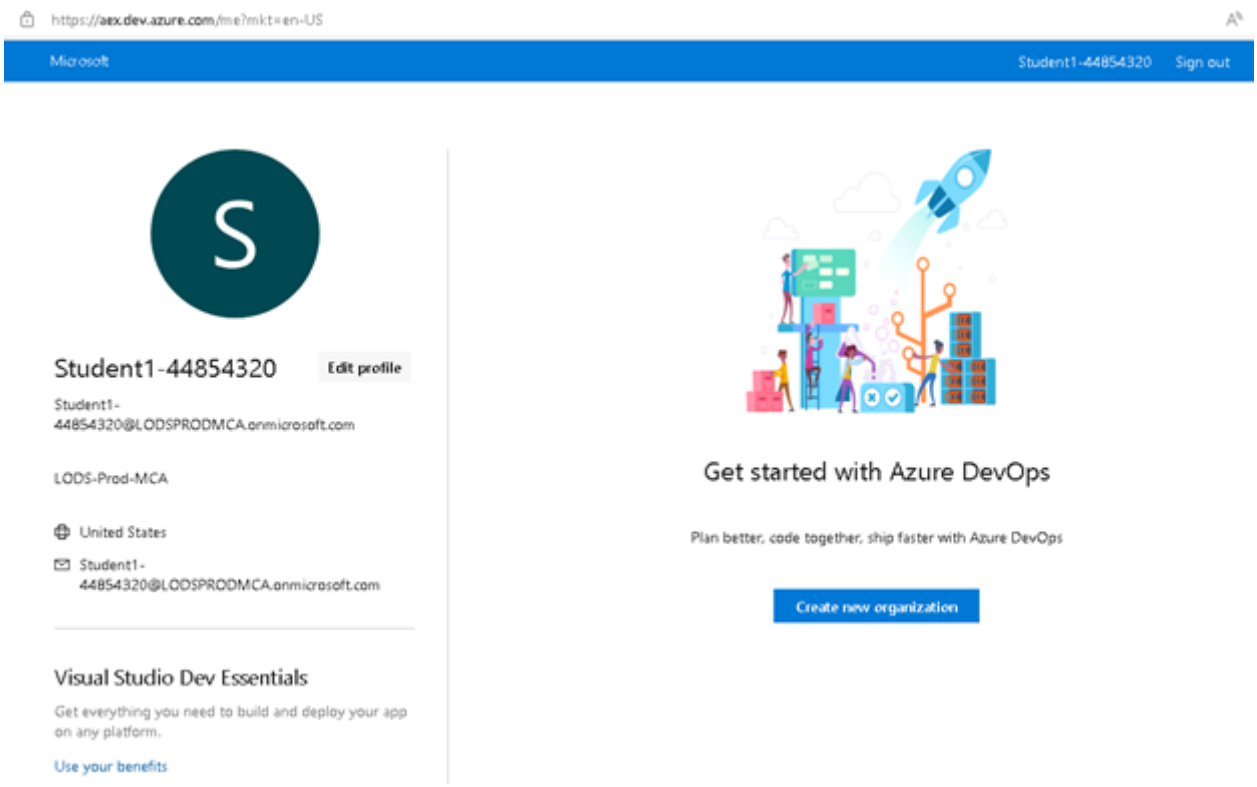
3. When presented the **Enter password** page, enter your password, then click on the **Sign in** button.



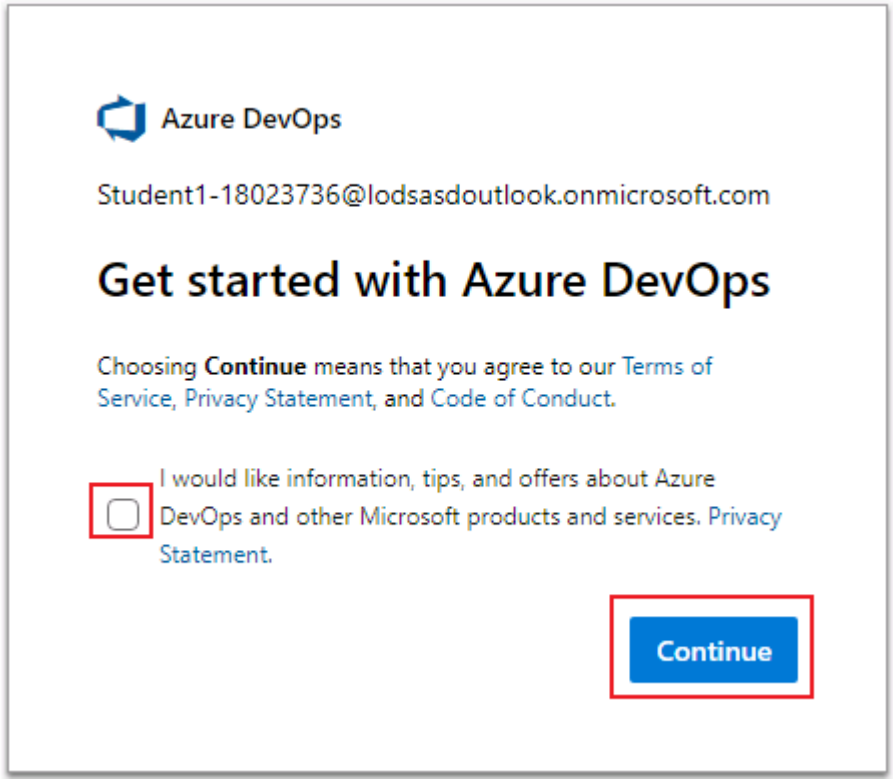
4. Choose your Country/Region then click **Continue**.



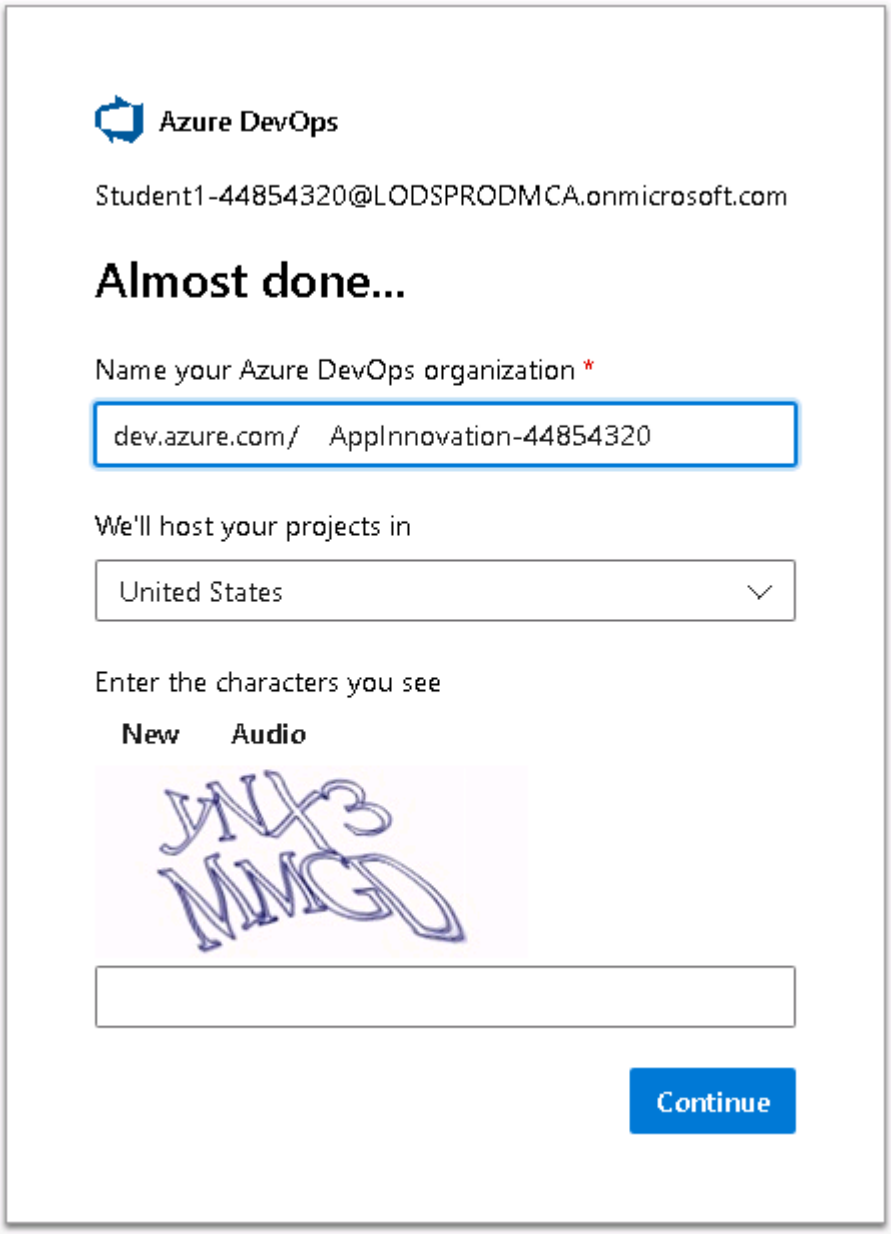
5. Click **Create new organization**.



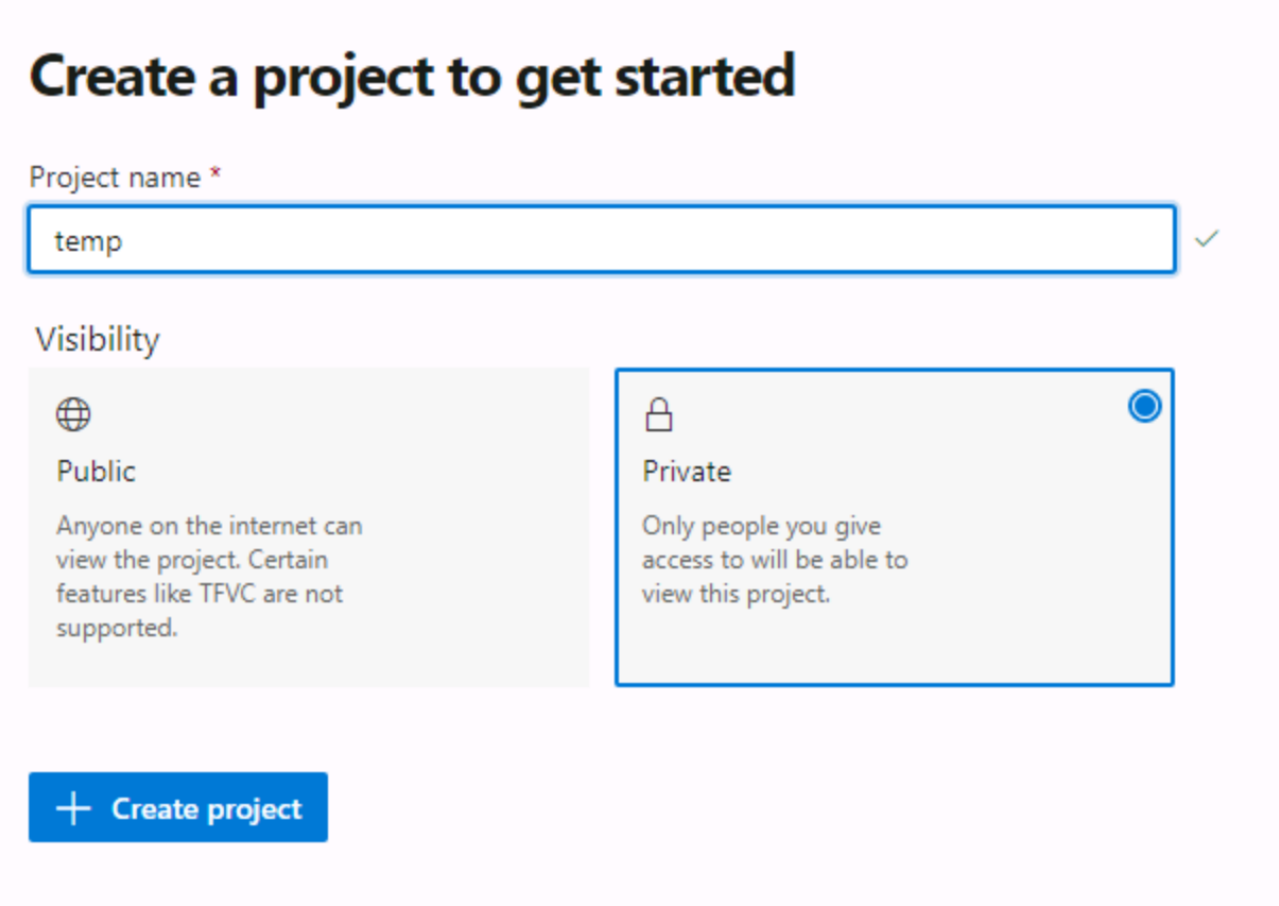
6. Uncheck the box to receive information, tips, and offers about Azure DevOps and other Microsoft products and services. Click on the **Continue** button.



7. Change the name of your organization to **AppInnovation-[YourName]** and optionally change the region selected for your new organization. Provide your **Captcha** phrase to verify creating a new organization, then click on **Continue**.



8. When presented the *Create a project to get started page*, provide **temp** as the Project name then click on the **+ Create project** button to continue.



> The temp project that you created uses the **Basic** process template. In the next steps, we will create new projects using the **Agile** and **Scrum** process templates.

> Please see Plan your Organizational Structure for more information. Here you will find information about various designs to address context switching, or roll-up reporting and portfolio management.

Exercise 2: Manage Projects

Objectives

After completing this exercise, you will be able to:

- Create new projects using Scrum and Agile processes.
- Understand the differences between the default processes.

Prerequisites

- Complete Exercise 1

Scenario

In this exercise, you will create two new projects under the organization you created in the previous exercise. You will use both the Scrum and Agile processes to create these projects. You will then examine the projects in detail to understand the differences in the processes.

Tasks

1. Task 1: Create the EmployeeTracking project using Scrum
2. Task 2: Create the CustomerPortal project using Agile
3. Task 3: Open CustomerPortal and EmployeeTracking projects in the Web Portal

Module 2: **Projects**, **Lab 1: Projects**, Exercise 2: Manage Projects

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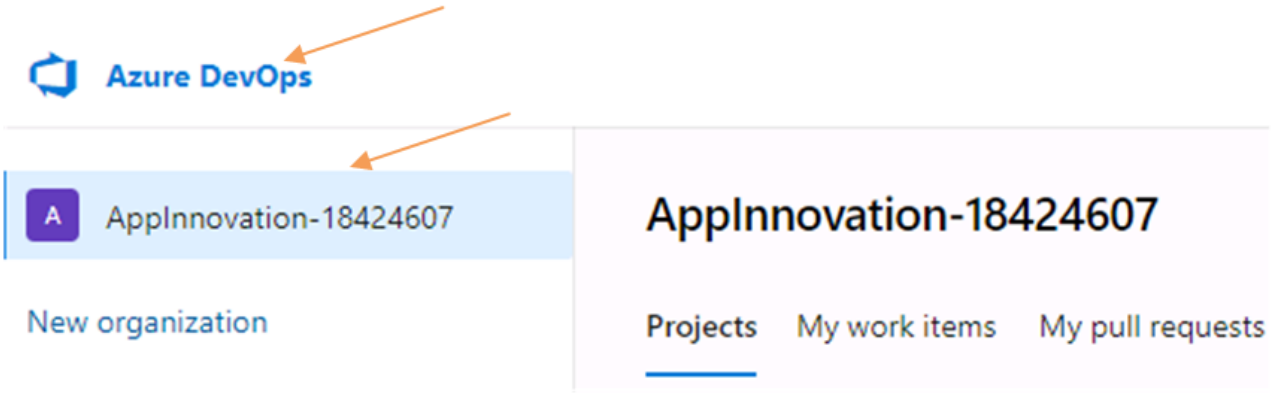
Task 1: Create the EmployeeTracking project using Scrum

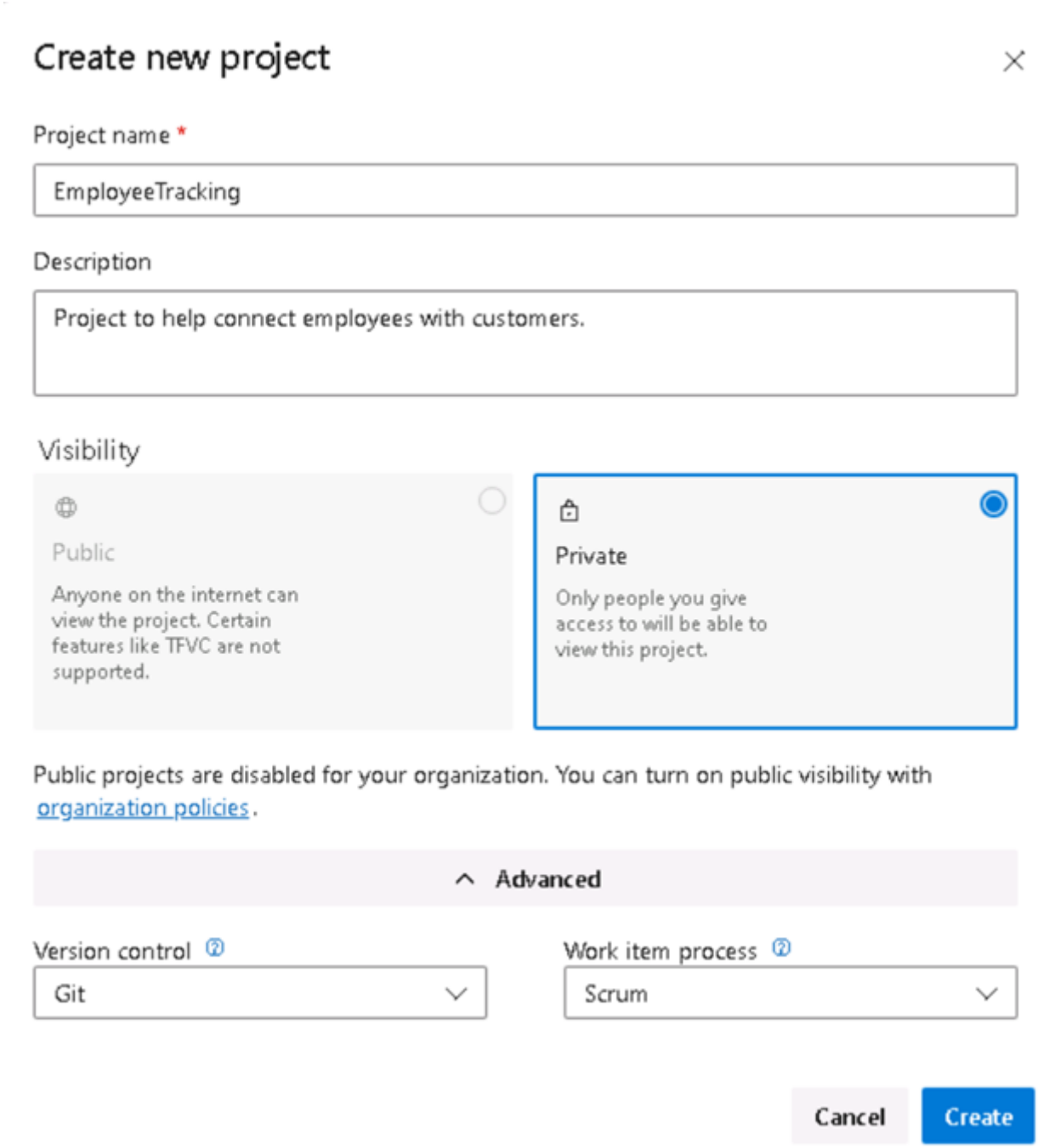
1. Click the **Azure DevOps** logo on the upper left corner, then click on your **AppInnovation-[YourName]** organization in the left navigation to show all available projects currently in the organization.



2. Click on the **+ New Project** button in the top right of the page to create a new project

3. Use the information below to create the **EmployeeTracking** project:

    1. Project Name: EmployeeTracking
    2. Description: Project to help connect employees with customers.
    3. Visibility: Choose **Private**
    4. **Advanced:**
    5. Version Control: **Git**
    6. Work Item Process: **Scrum**



4. Click the **Create** button to create your new project

Module 2: **Projects**, **Lab 1: Projects**, Exercise 2: Manage Projects

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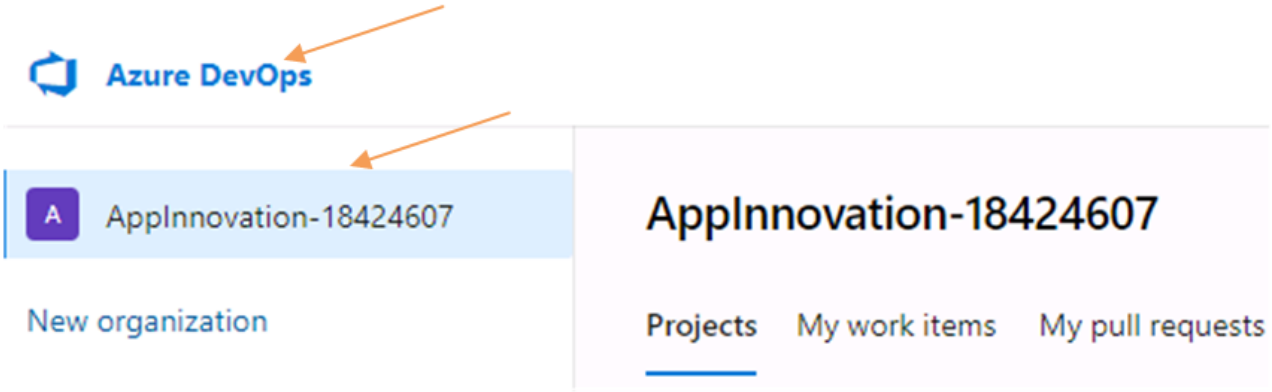
Task 2: Create the CustomerPortal project using Agile

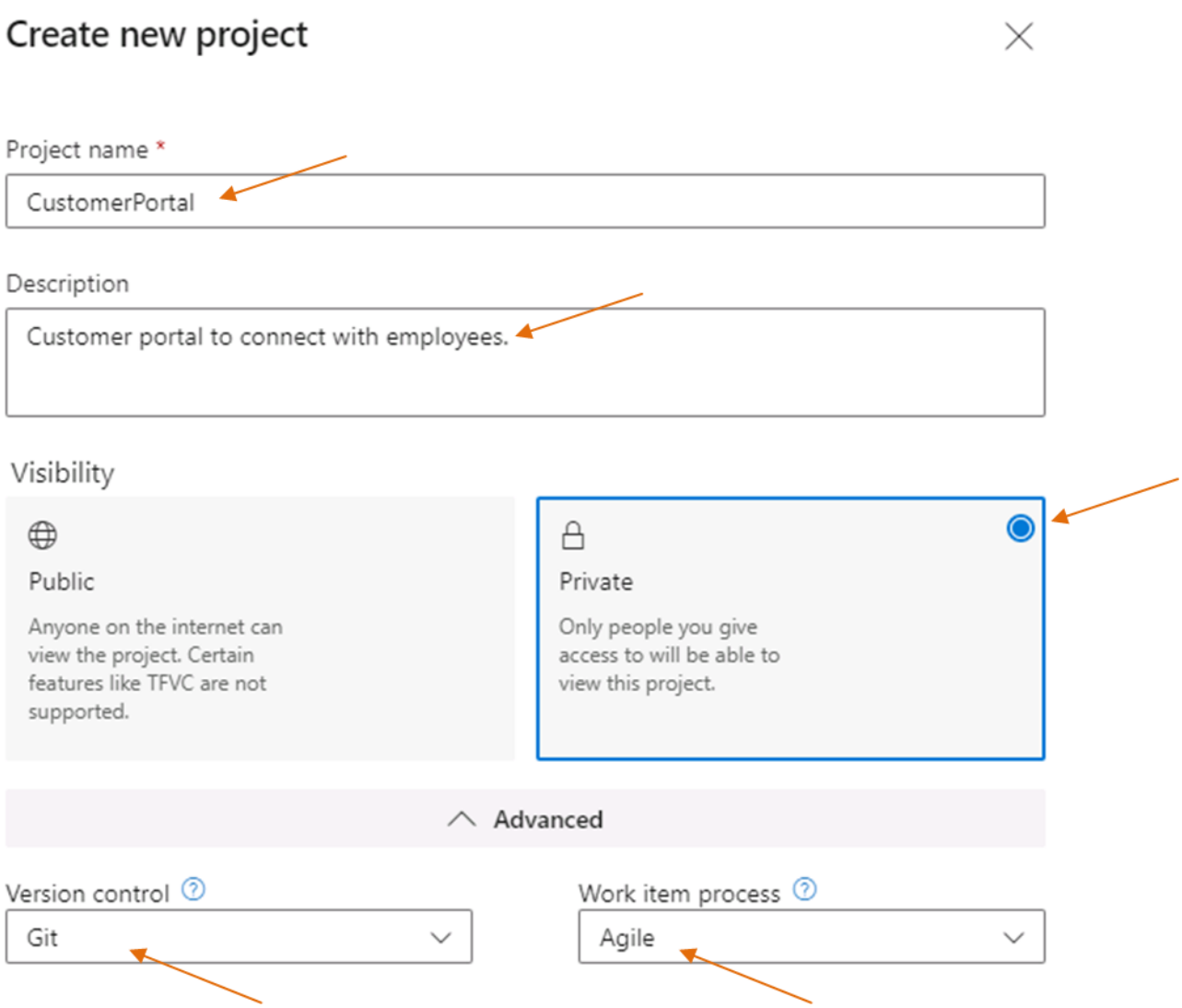
1. Click the **Azure DevOps** logo on the upper left corner to open the Projects page



2. Click on the **+ New Project** button in the top right of the page to create a new project

3. Use the information below to create the **CustomerPortal** project:

    1. Project Name: CustomerPortal
    2. Description: Customer portal to connect with employees.
    3. Visibility: Choose **Private**
    4. **Advanced:**
    5. Version Control: **Git**
    6. Work Item Process: **Agile**



4. Click the **Create** button to create your new project

Module 2: **Projects**, **Lab 1: Projects**, Exercise 2: Manage Projects

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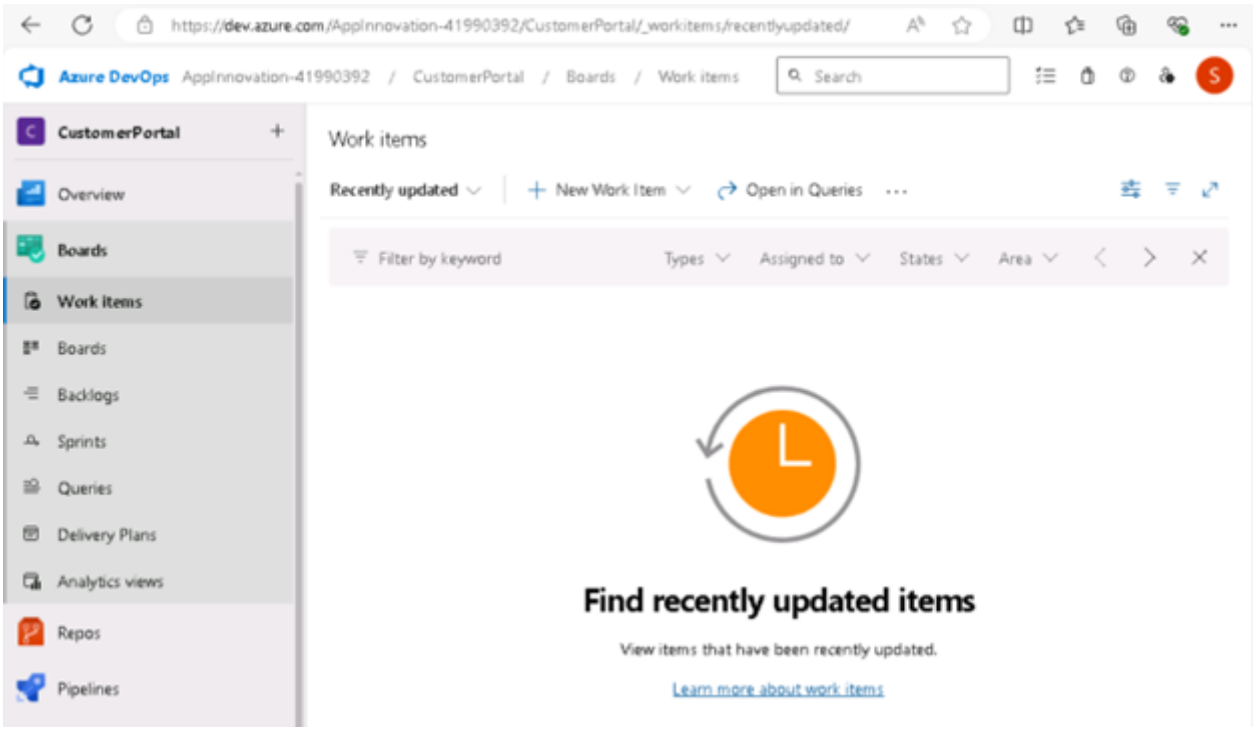
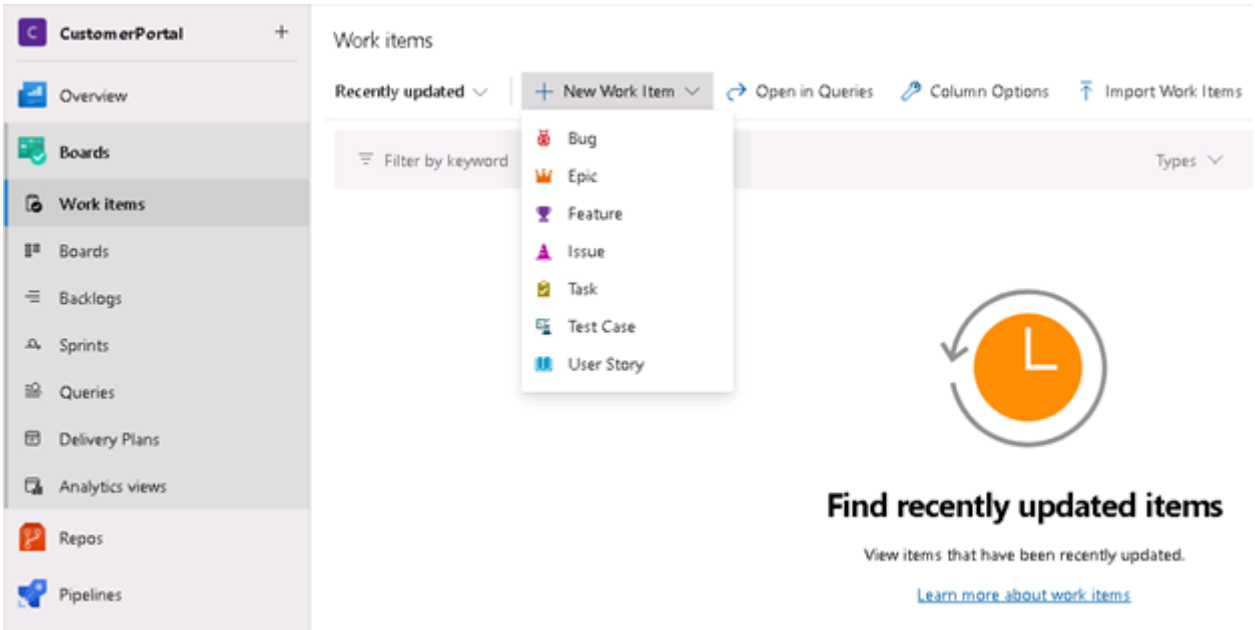
Task 3: Open CustomerPortal and EmployeeTracking projects in the Web Portal

1. Within Azure DevOps Services browser page, make sure you are in the **CustomerPortal** project. Select **Boards | Work Items**.

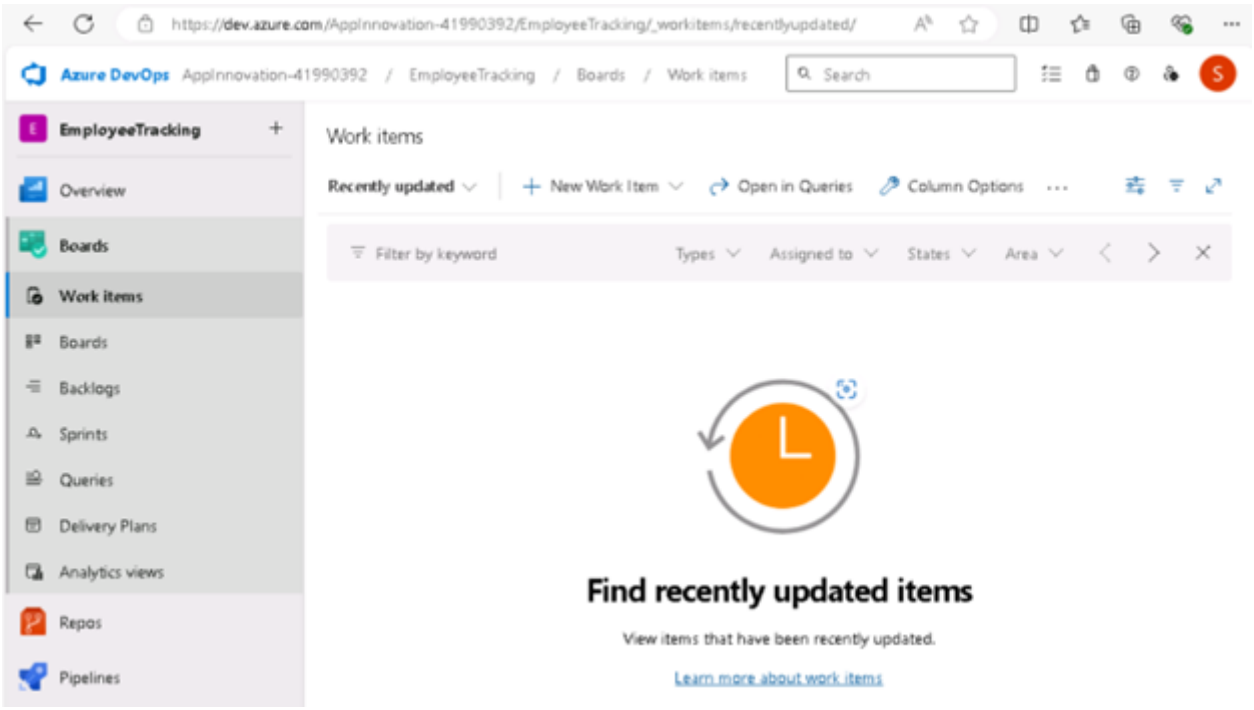


2. Click on the **New Work Item** dropdown to see the list of different types of work items. Note the work item types such as Issue, User Story that are specific to the Agile Process Template.

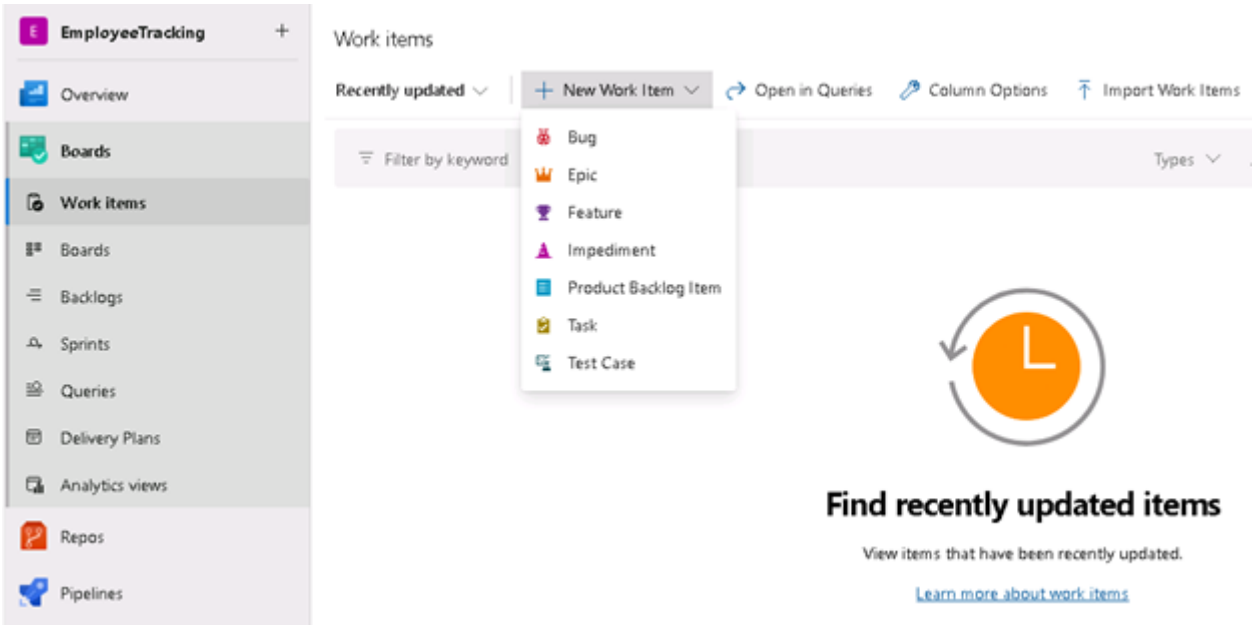


> Next, we will connect to the EmployeeTracking project so we can compare and review the differences of the Scrum and Agile process templates.

3. Click the **Azure DevOps** logo on the upper left corner to open the Projects page. Choose **EmployeeTracking** project. Select **Boards | Work Items**.



4. Click on the **New Work Item** dropdown to see the list of different types of work items. Note the work item types such as Impediment, Product Backlog Item that are specific to the Scrum Process Template.



> Azure Boards offers various processes to choose from for managing work items. Selecting the right process is essential for optimizing a project workflow and ensuring its success. The default processes differ mainly in the work item types they provide for planning and tracking work. The default processes are:
>
> - Basic: Is the most lightweight and is in a selective preview.
> - Scrum: Is the next most lightweight.
> - Agile: Supports many Agile method terms.
> - CMMI: Provides the most support for formal processes and change management.

Module 2: **Projects**, **Lab 1: Projects**, Exercise 3: Project Settings

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Exercise 3: Project Security

Objectives

After completing this lab, you will be able to:

- Examine and understand project security.

Prerequisites

- Complete Exercise 2

Scenario

In this exercise, you will examine the Security settings that can be configured at the Project level. Notifications, Work Item Areas and Iterations will be discussed in detail in another lab.

Tasks

1. Task 1: Security: Groups

Module 2: **Projects**, **Lab 1: Projects**, Exercise 3: Project Settings

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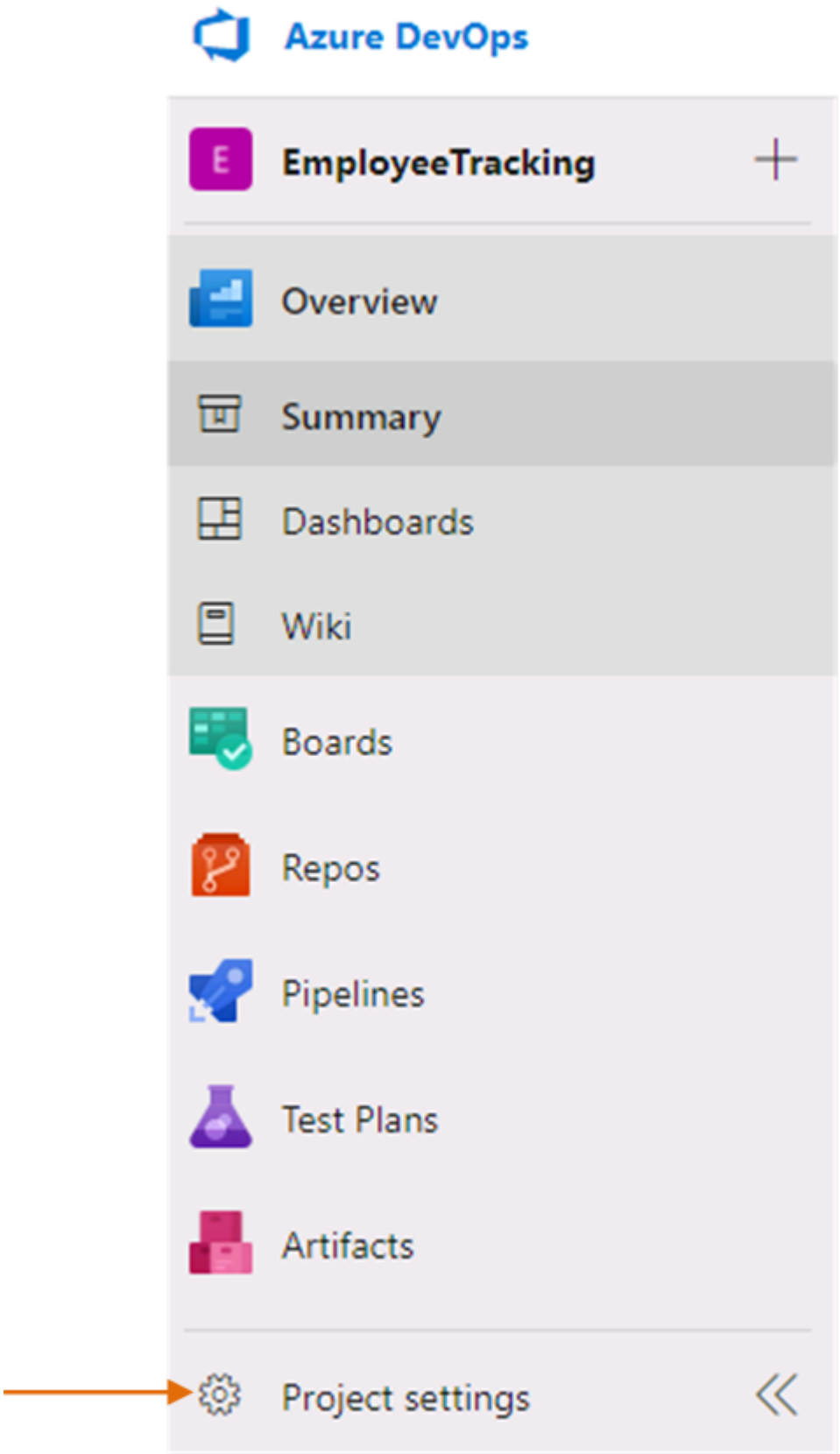
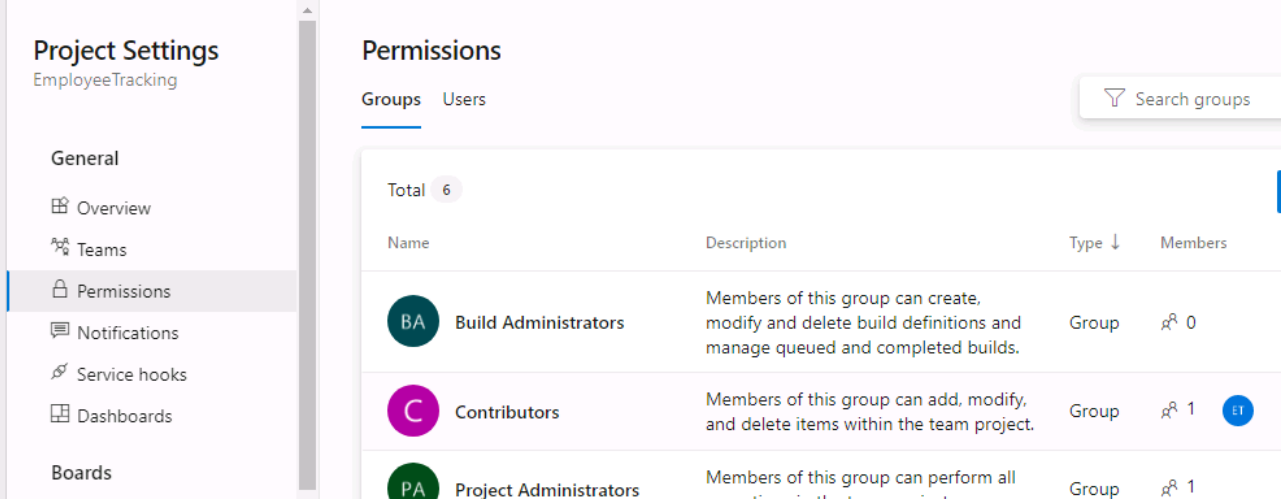
Task 1: Security: Groups

1. Navigate to the **EmployeeTracking** project in the browser by opening Azure DevOps Services, then click on the **Project Settings** link in the bottom left corner.



2. Click the **Permissions** link on the **Settings** page of EmployeeTracking project.



Permissions settings allow you to manage access control to the project. The preferred way to manage permissions is to use groups. Groups allow you to consolidate all users who require the same access control into a single point and you grant access control to the group instead of individual users. This will make the management of access control easier and less error-prone.

- You can grant or deny permission for actions that pertain to projects through **Permissions**.
- You can add users to the group through the **Users** tab. Users can be a Microsoft account, Microsoft Entra account or Azure DevOps group.

Exercise 4: Working with Teams

Objectives

After completing this lab, you will:

- Understand the concept of teams.
- Create and configure teams.

Prerequisites

- Complete Exercise 2

Scenario

A software project is usually broken down into components and features that smaller teams work on. Collectively, these small teams constitute the entire project team. Teams are a way of breaking down a big team into smaller logical teams. Azure DevOps Services turns the often-intangible details of who the team is, what the team is doing, and when the team expects to be doing it into traceable, easily usable information for each of those aspects. A team also has a security container, which has access control applied to it and enforced to all members of the team. A team can also have a default Area assigned to it.

Using the **EmployeeTracking** project, which was created earlier using Scrum, you will look at the default team that is created as part of the project. You will also create and configure a new team and review it.

Tasks

1. Task 1: Create a New Team
2. Task 2: Add New Team Members
3. Task 3: Review project settings

Module 2: **Projects**, **Lab 1: Projects**, Exercise 4: Working with Teams

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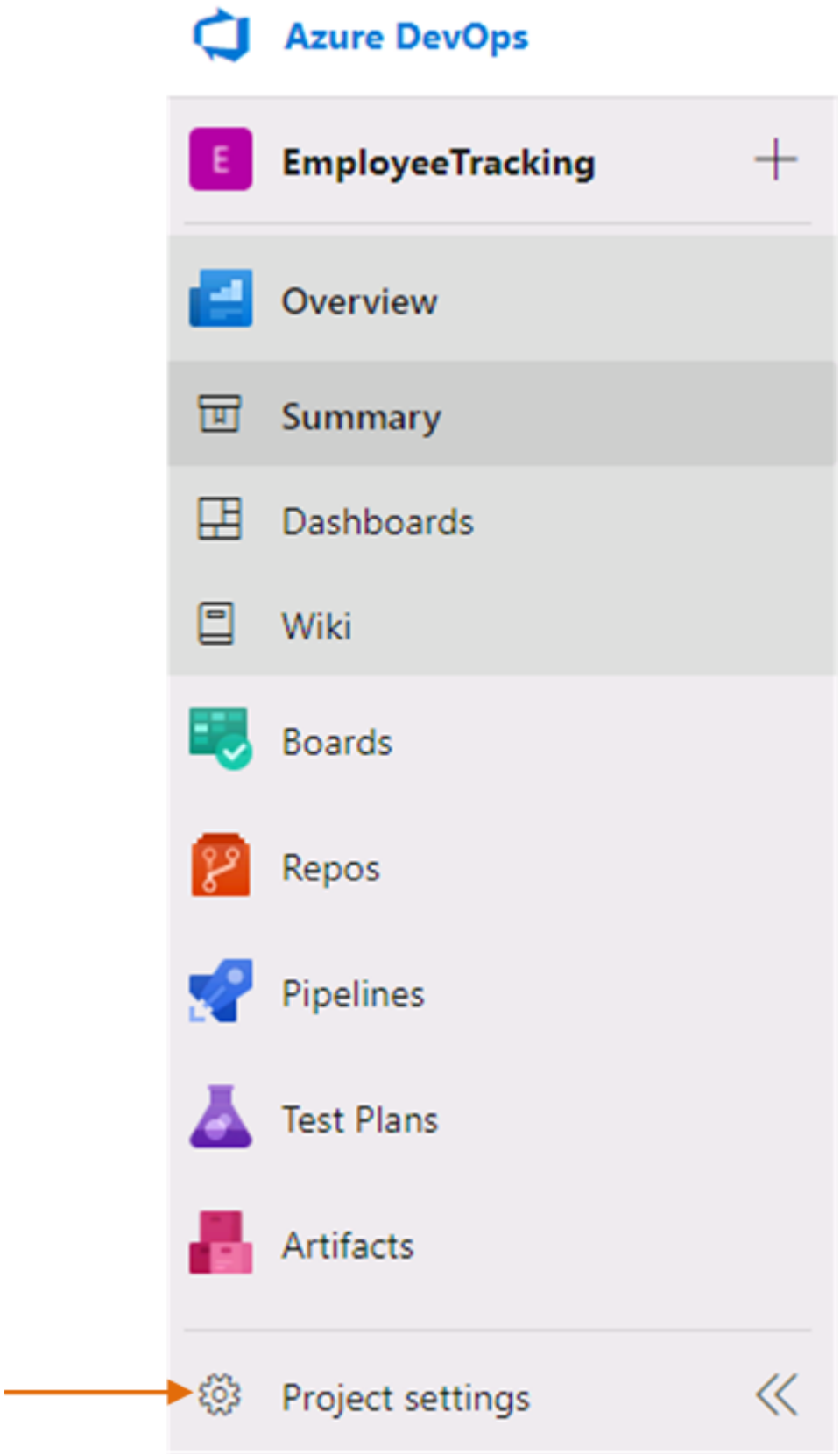
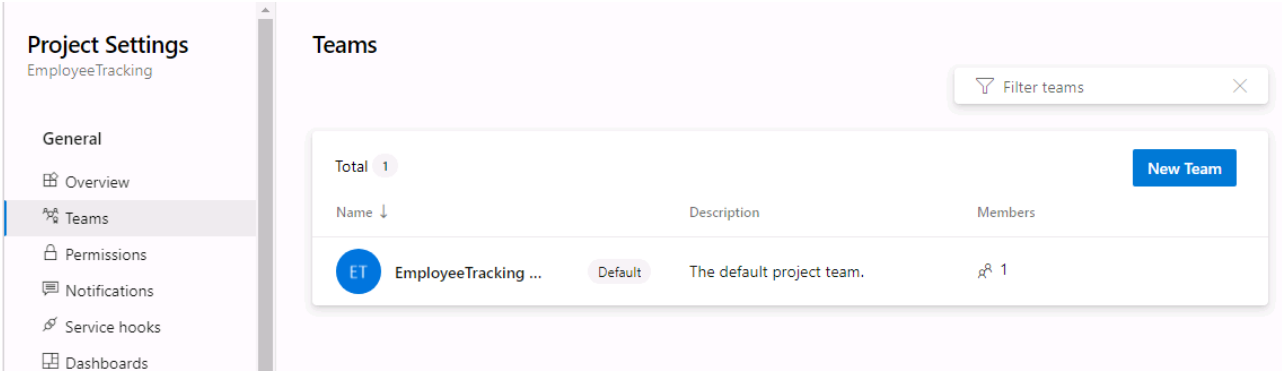
Task 1: Create a New Team

1. Navigate to the **EmployeeTracking** project in the browser by opening Azure DevOps Services, then click on the **Project Settings** link in the bottom left corner.



2. In the **General** section, click the **Teams** link.

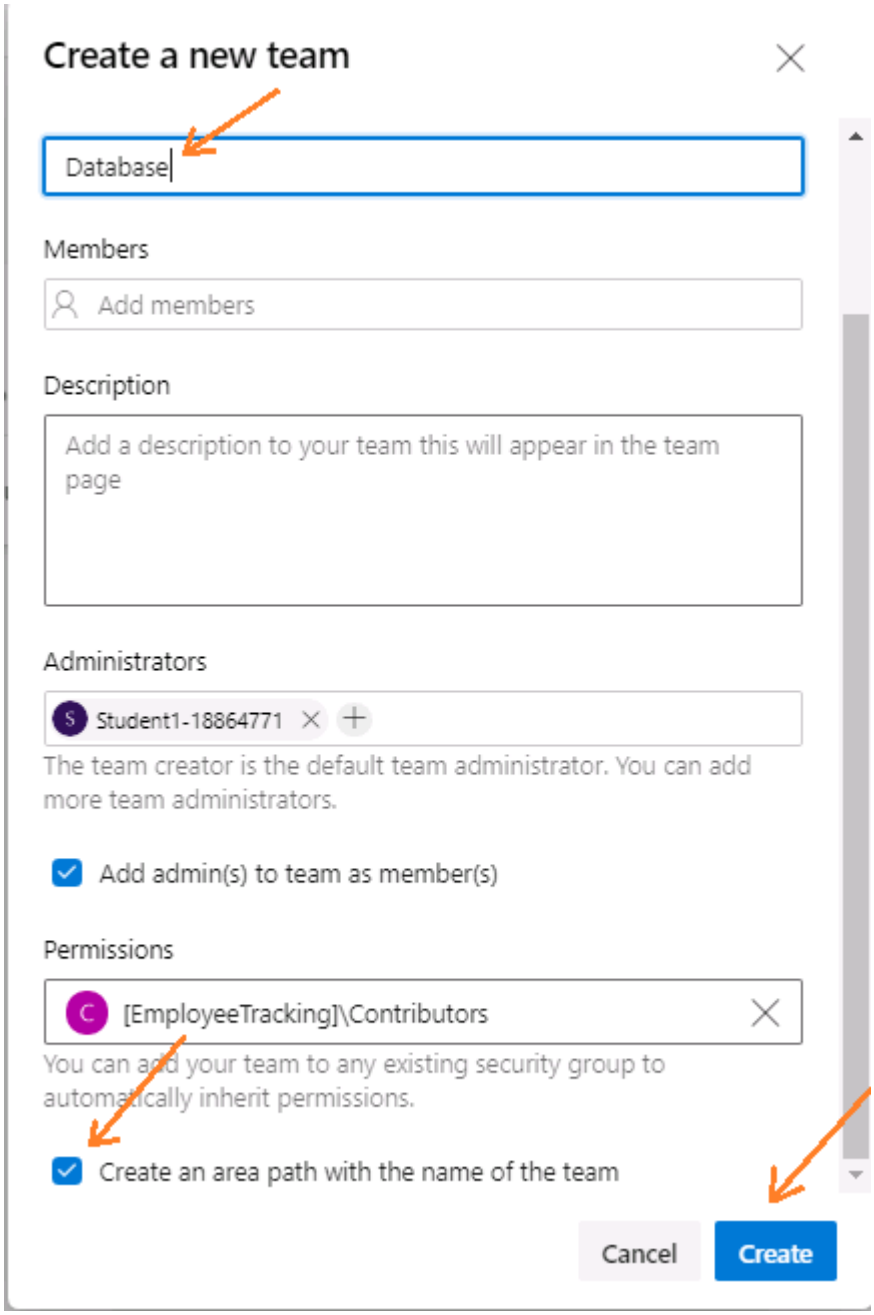
3. Click **New Team**.



> The **Create new team** window opens. When you create a team, you can assign a security group to it and create a default area path for that team.

4. In the **Create new team** windows, create a new team called **Database**. **Create an area path with the name of the team** option should be selected by default. Click **Create.**

> The checkbox for *Create an area path with the name of the team* creates a default area path for the team.


Create a new team
Database
Members
Add members
Description
Add a description to your team this will appear in the team page
Administrators
Student1-18864771
The team creator is the default team administrator. You can add more team administrators.
Add admin(s) to team as member(s)
Permissions
[EmployeeTracking]\Contributors
You can add your team to any existing security group to automatically inherit permissions.
Create an area path with the name of the team
Cancel
Create

Module 2: **Projects**, **Lab 1: Projects**, Exercise 4: Working with Teams

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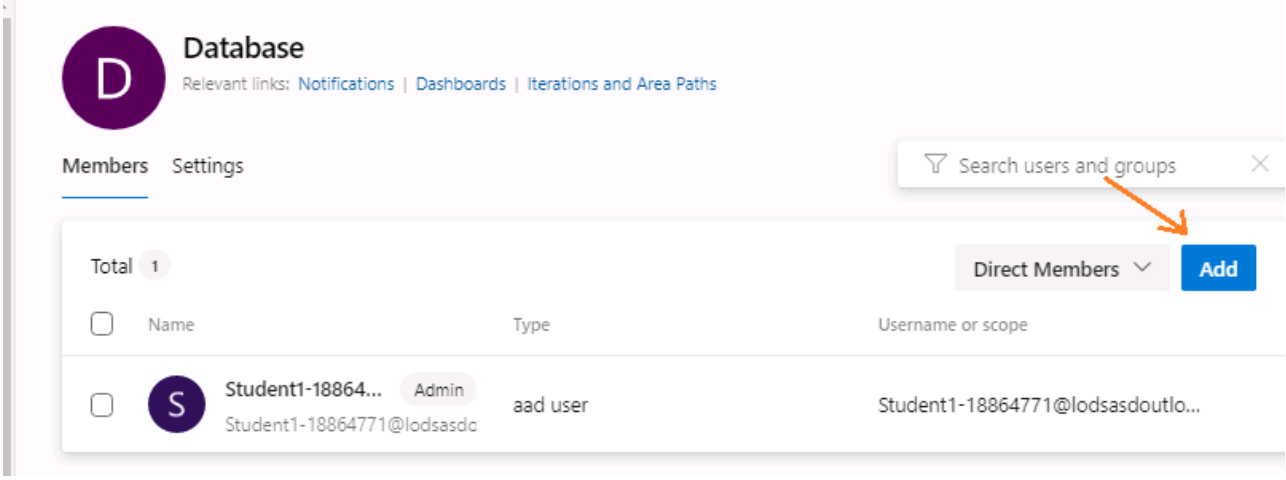
Task 2: Add New Team Members

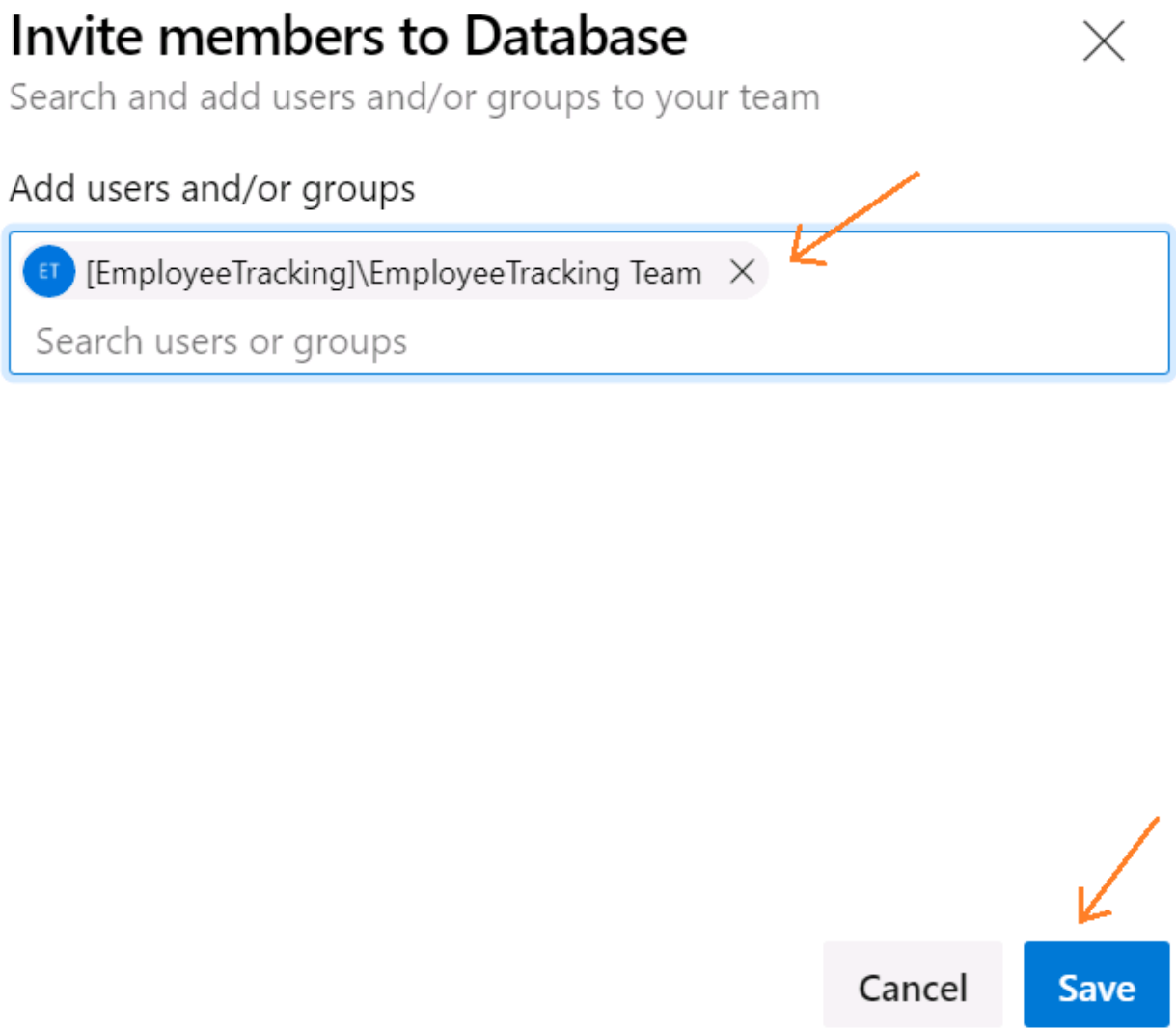
1. Click the **Database** team you have created. Note that the team has its own settings. You can also add new team members here.

2. Click **Add**.



3. You can type the username in the **Add users and/or groups** text box directly. Add **EmployeeTracking Team** and click **Save**.

> If asked to sign-in again, enter your credentials


Invite members to Database
Search and add users and/or groups to your team
Add users and/or groups
ET
[EmployeeTracking]\EmployeeTracking Team
Search users or groups
Cancel
Save

Module 2: **Projects**, **Lab 1: Projects**, Exercise 4: Working with Teams

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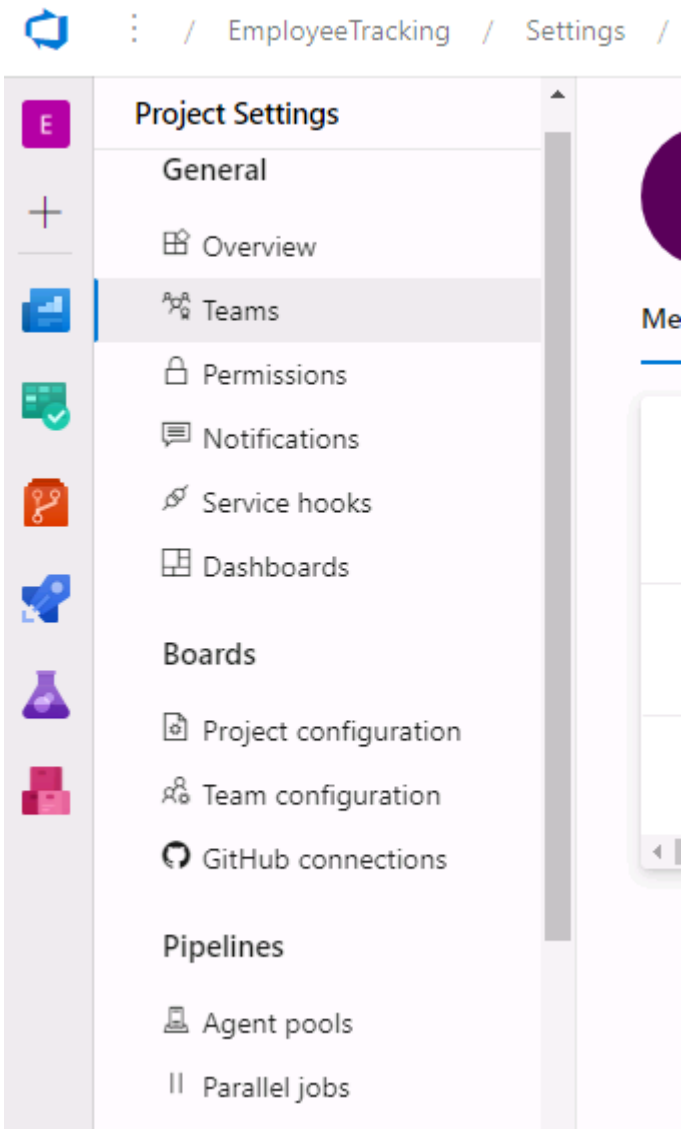
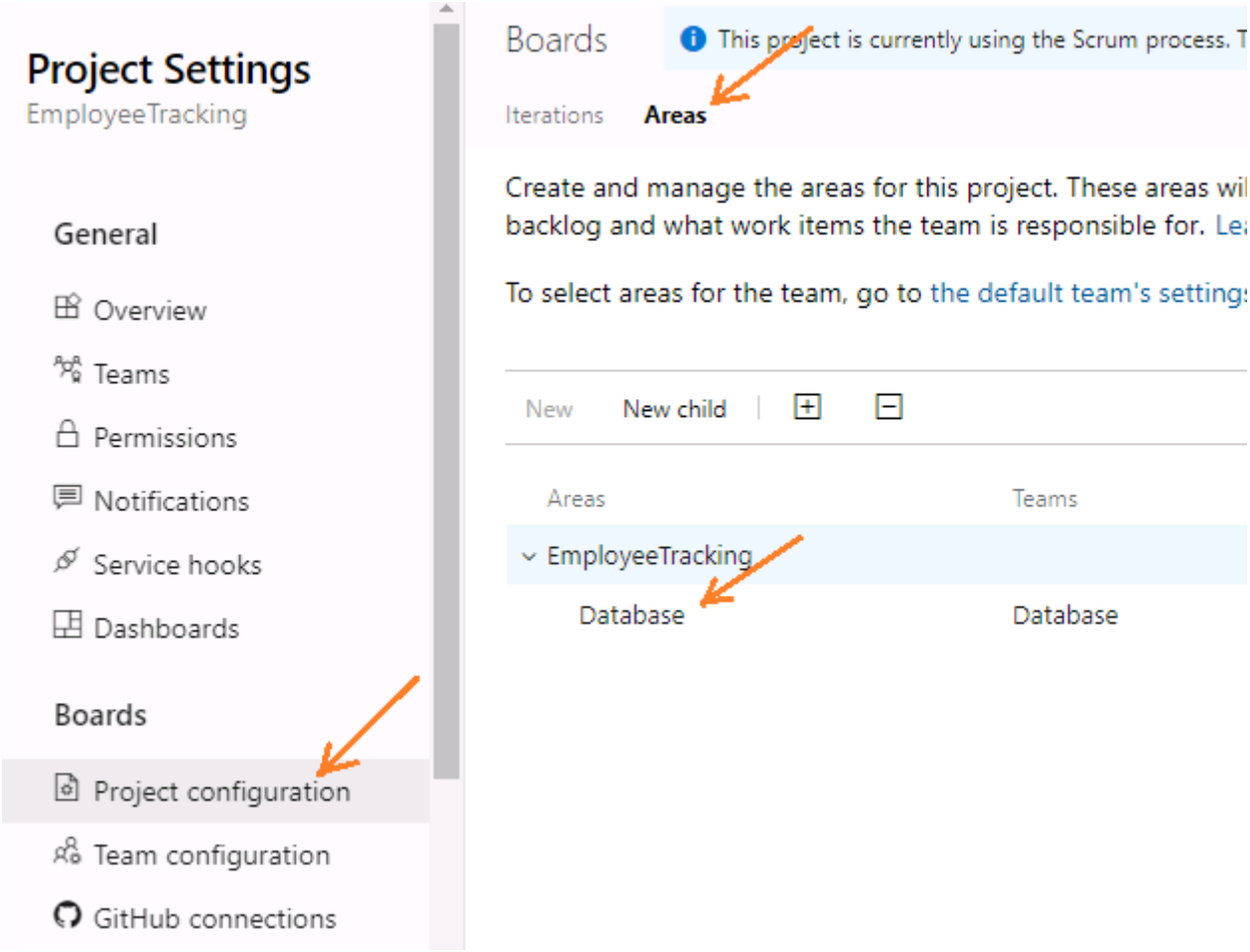
Task 3: Review project settings

1. Navigate through different tabs to review different project settings.



2. Project settings are very similar to security settings. If you click the **Project configuration** tab under **Boards** and then **Areas** , you will see that there is also an area with the name of the team created.


Project Settings
EmployeeTracking
General
Overview
Teams
Permissions
Notifications
Service hooks
Dashboards
Boards
Project configuration
Team configuration
GitHub connections
Boards
This project is currently using the Scrum process. T
Iterations
Areas
Create and manage the areas for this project. These areas wil
backlog and what work items the team is responsible for. Le
To select areas for the team, go to the default team's setting
New
New child
Areas
Teams
EmployeeTracking
Database
Database

Exercise 5: Create and customize inherited process

Objectives

After completing this lab, you will be able to:

- Create an inherited process and customize it.

Prerequisites

- Complete Exercise 2

Scenario

You will explore how to create a very basic custom process. The objective is to understand how processes can be customized. The customizations will be kept to a minimum.

Tasks

1. Task 1: Create an Inherited Process
2. Task 2: Open the Inherited Process
3. Task 3: Verify the Customization

Module 2: **Projects**, **Lab 1: Projects**, Exercise 5: Create and Customize Inherited Process

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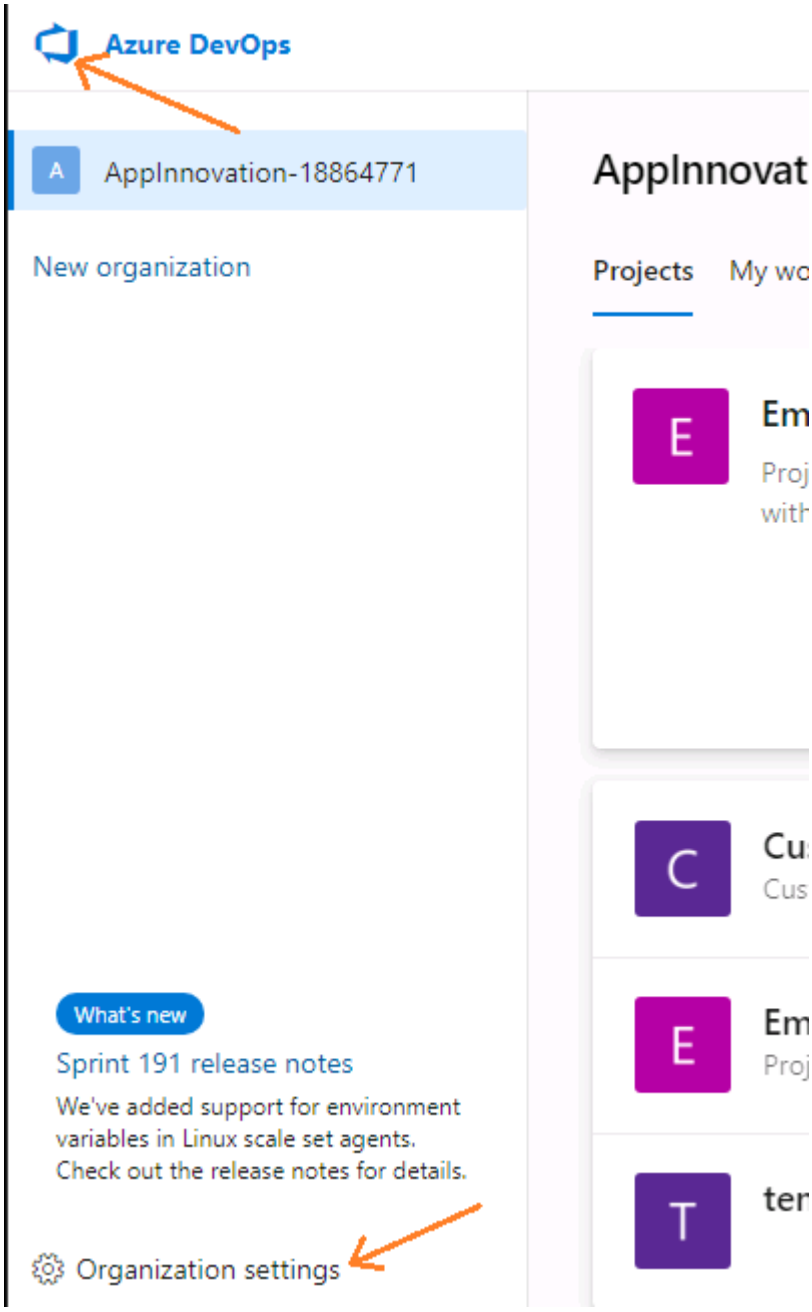
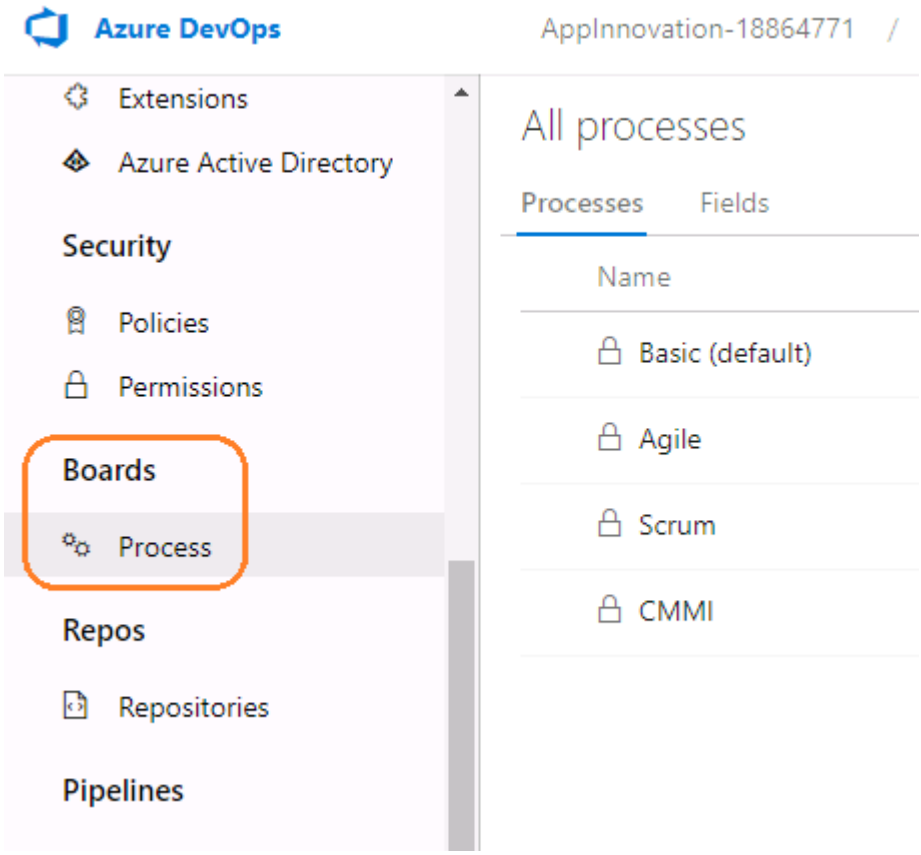
Task 1: Create an inherited process

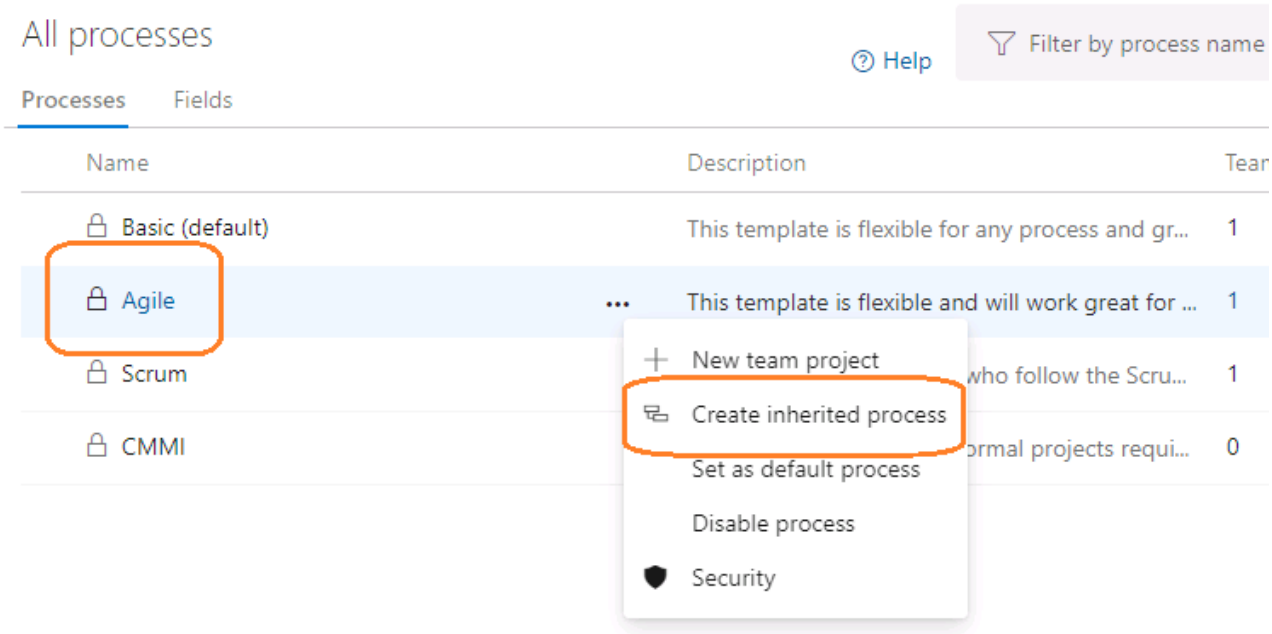
1. Click the **Azure DevOps** logo to open **Projects**. Then click **Organization settings** on the lower left corner.



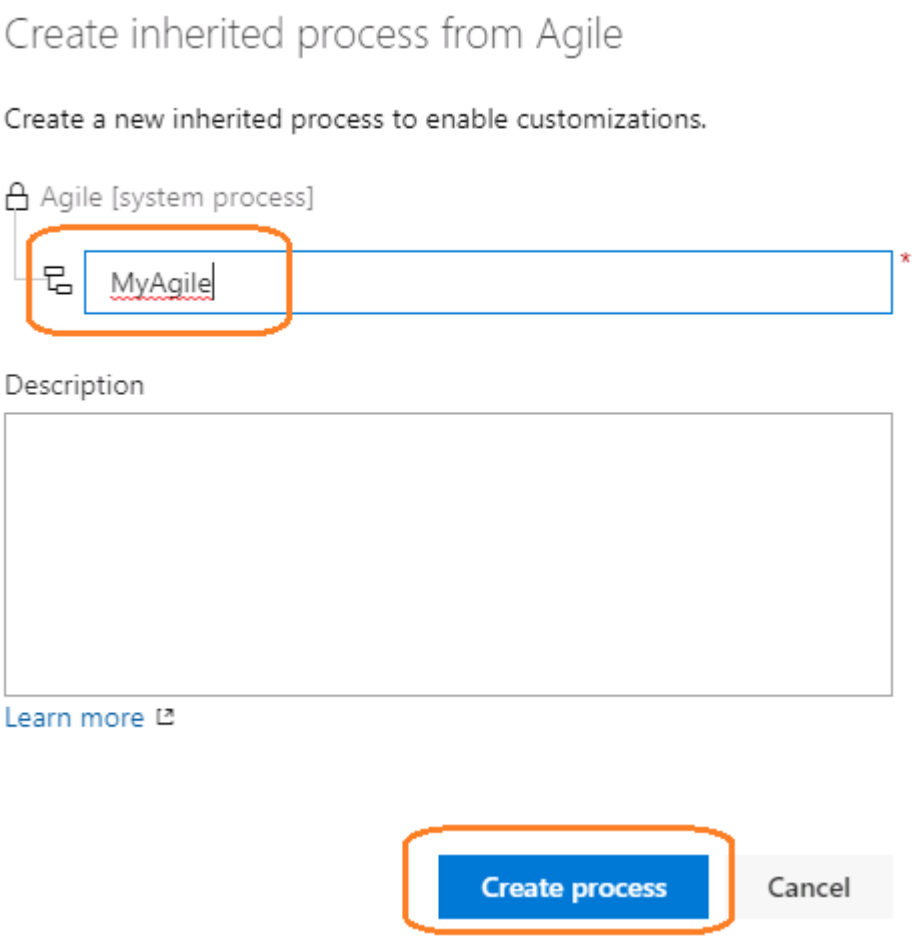
2. Click **Process** under **Boards**.



3. You can create an inherited process from any one of the four system processes: Basic, Agile, Scrum, CMMI. From the **All processes** page, click on the **... context menu** of the **Agile** and select **Create inherited process** to create an inherited process from Agile.



4. Enter **MyAgile** as the name for your process. You can optionally provide a description. Click **Create process**.


Create inherited process from Agile
Create a new inherited process to enable customizations.
Agile [system process]
MyAgile
*
Description
Learn more
Create process
Cancel

Module 2: **Projects**, **Lab 1: Projects**, Exercise 5: Create and Customize Inherited Process

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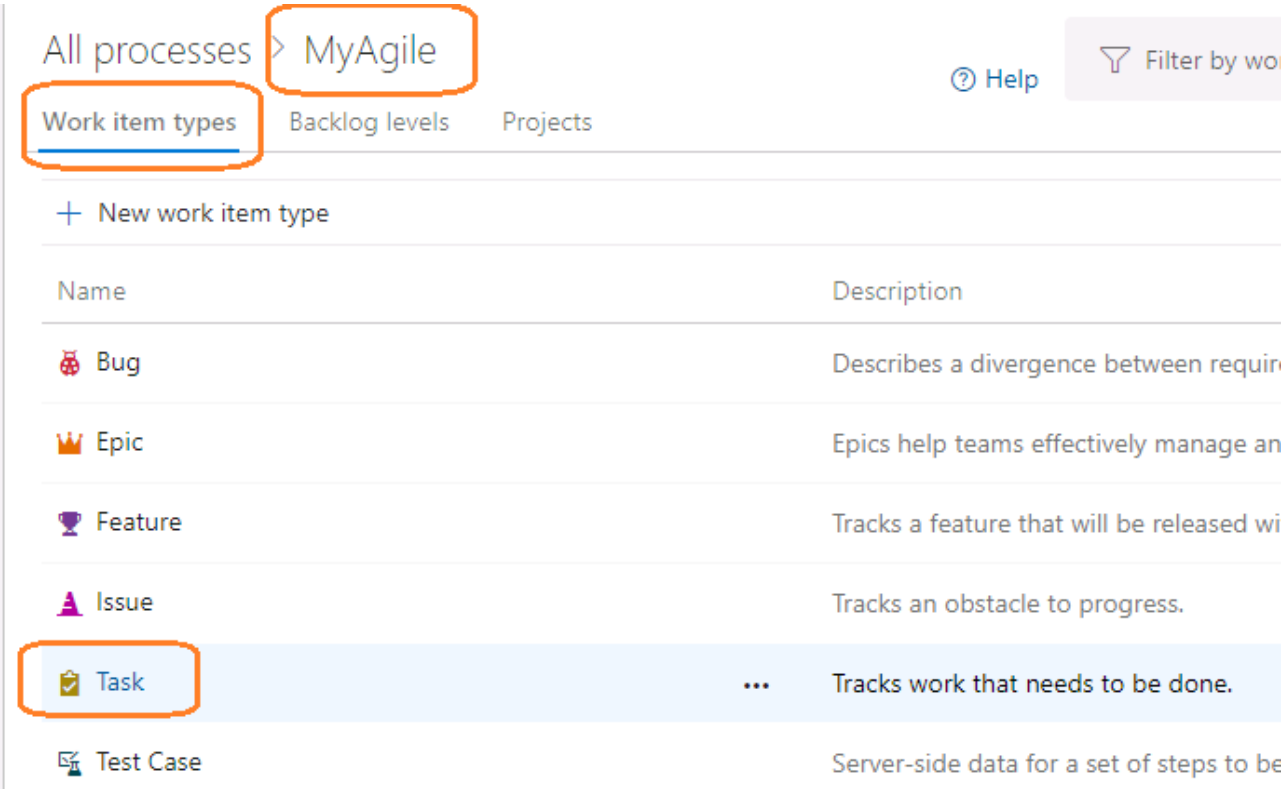
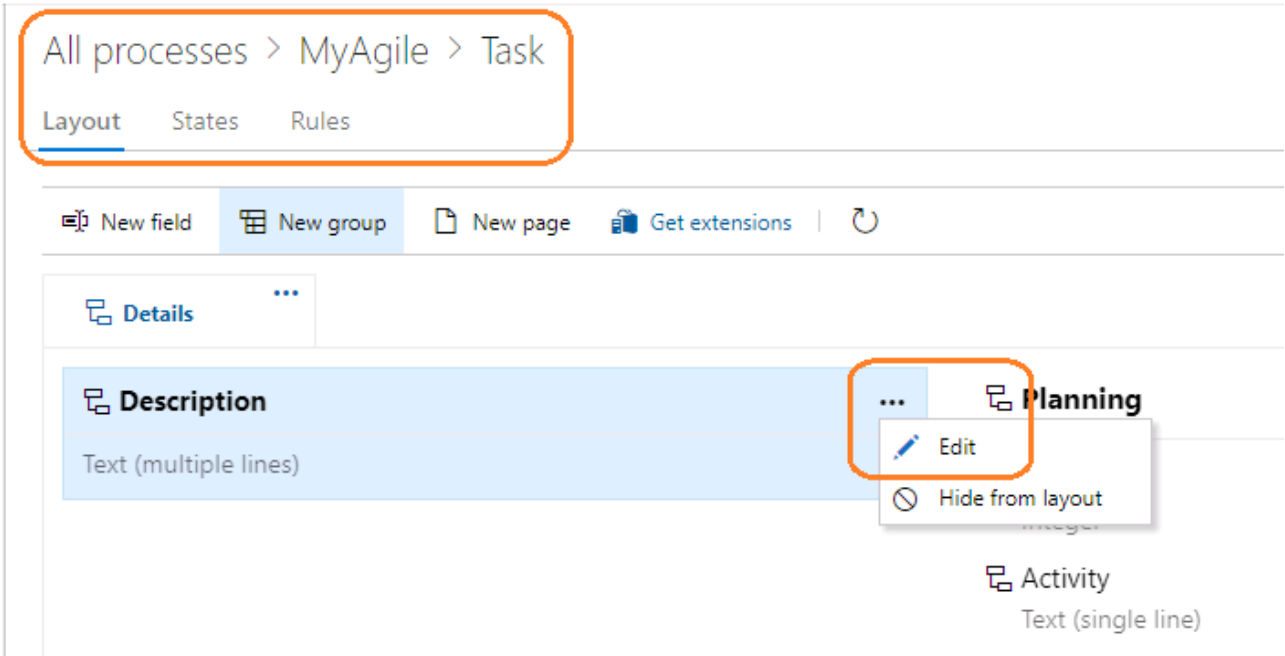
Task 2: Open the inherited process

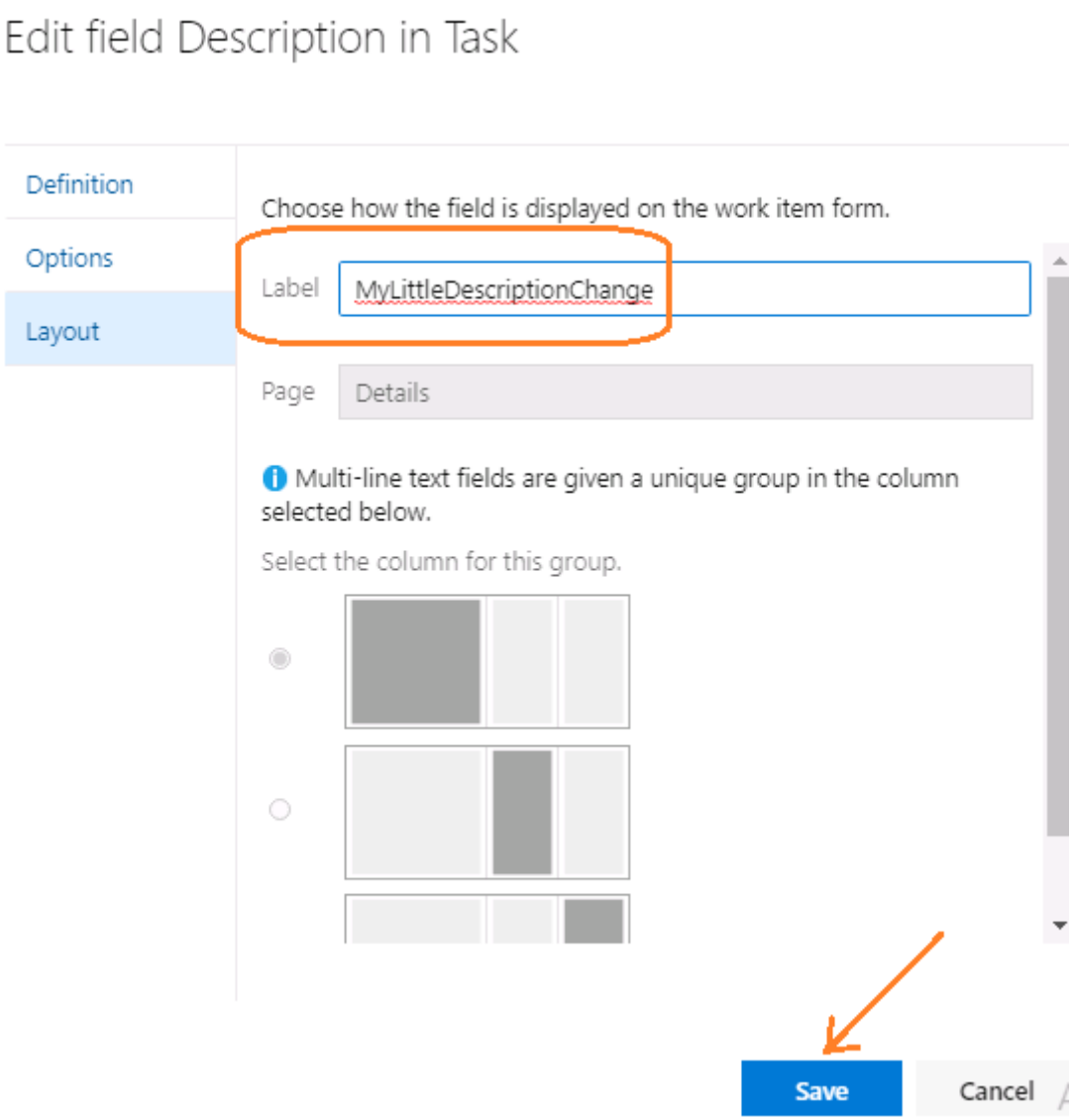
1. Click **MyAgile** and click **Task** from the **Work item types** tab.



2. Under **Layout** open the **... context menu** of **Description** and click **Edit**.



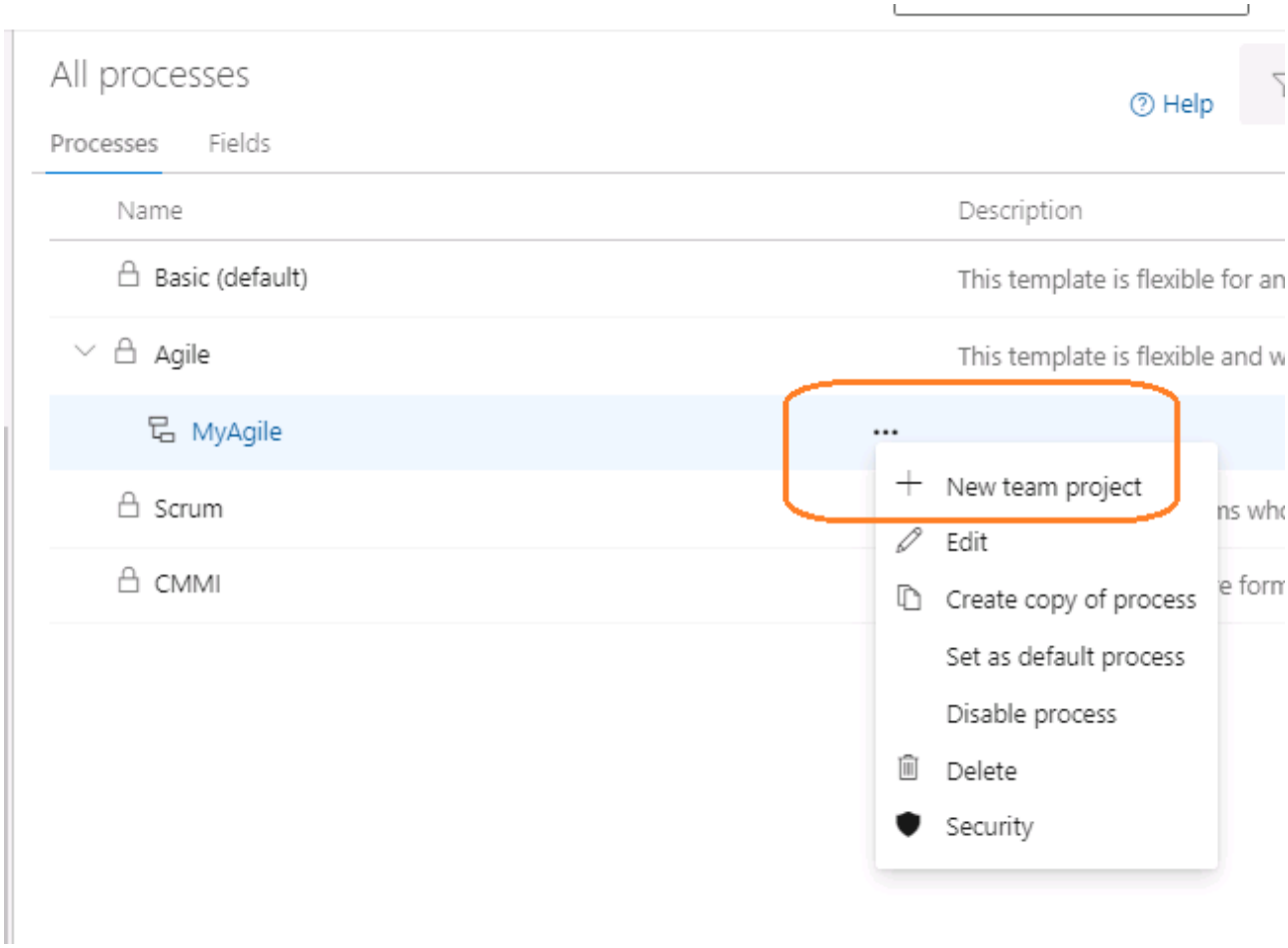
3. Change the label to **MyLittleDescriptionChange** and click **Save**.


Edit field Description in Task
Definition
Options
Layout
Choose how the field is displayed on the work item form.
Label
MyLittleDescriptionChange
Page
Details
Multi-line text fields are given a unique group in the column selected below.
Select the column for this group.
Save
Cancel

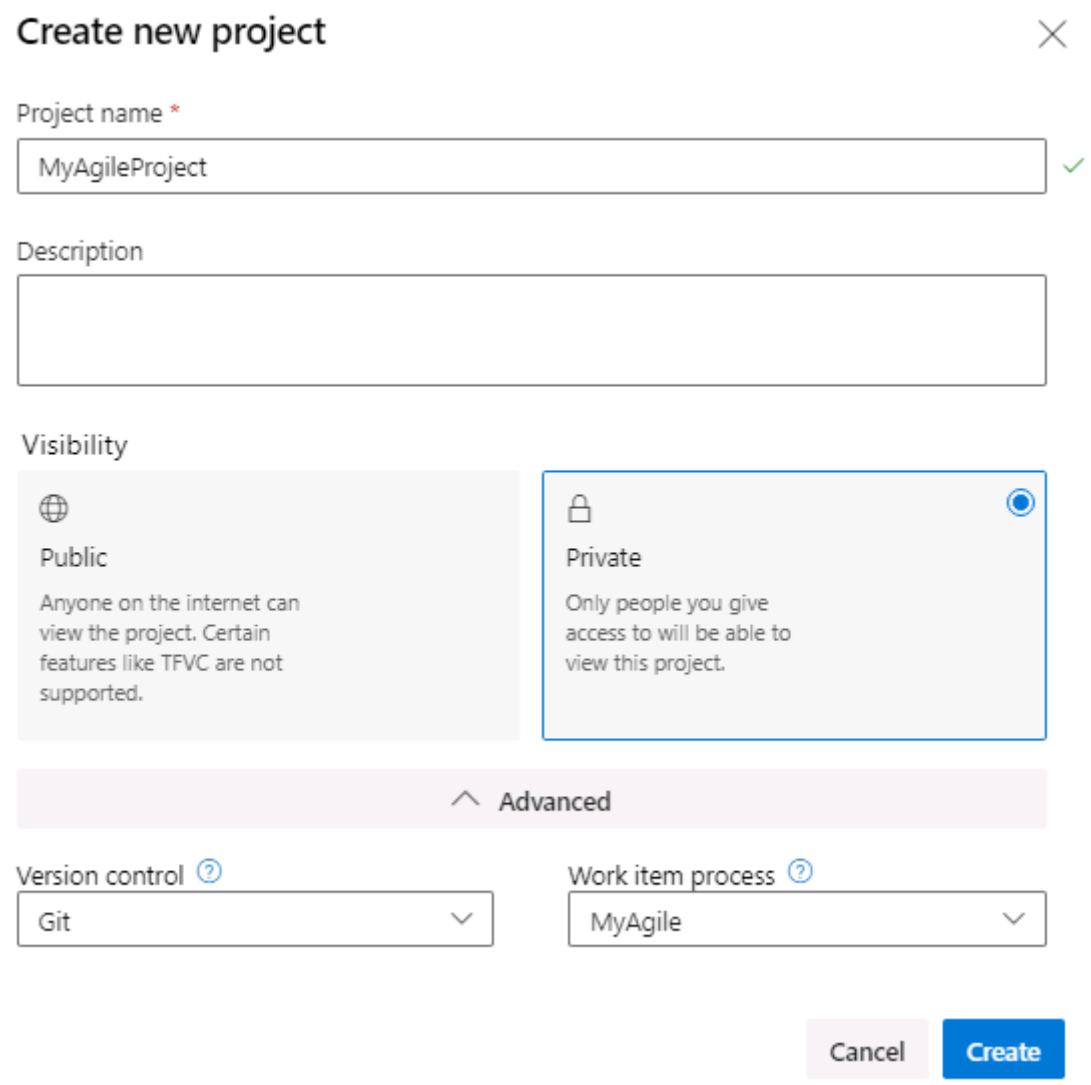
Module 2: **Projects**, **Lab 1: Projects**, Exercise 5: Create and Customize Inherited Process

Task 3: Verify the customization you made

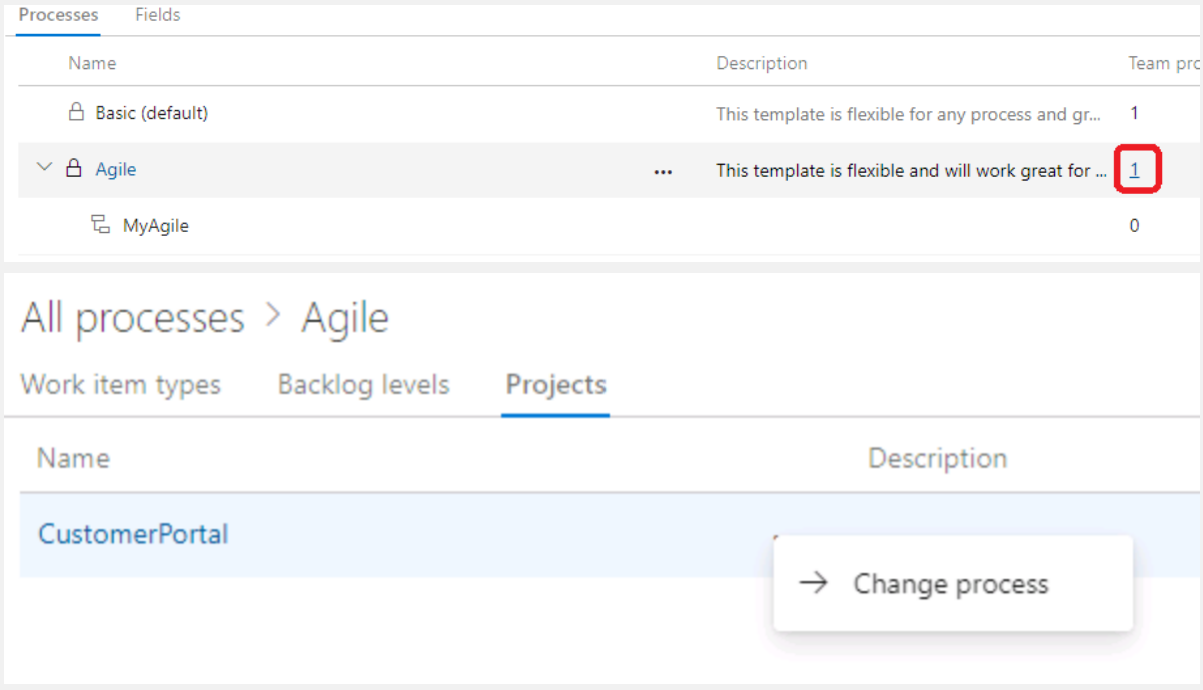
1. Open the **All processes** page and click the **... context menu** for the **MyAgile** process, and then click **New team project**.



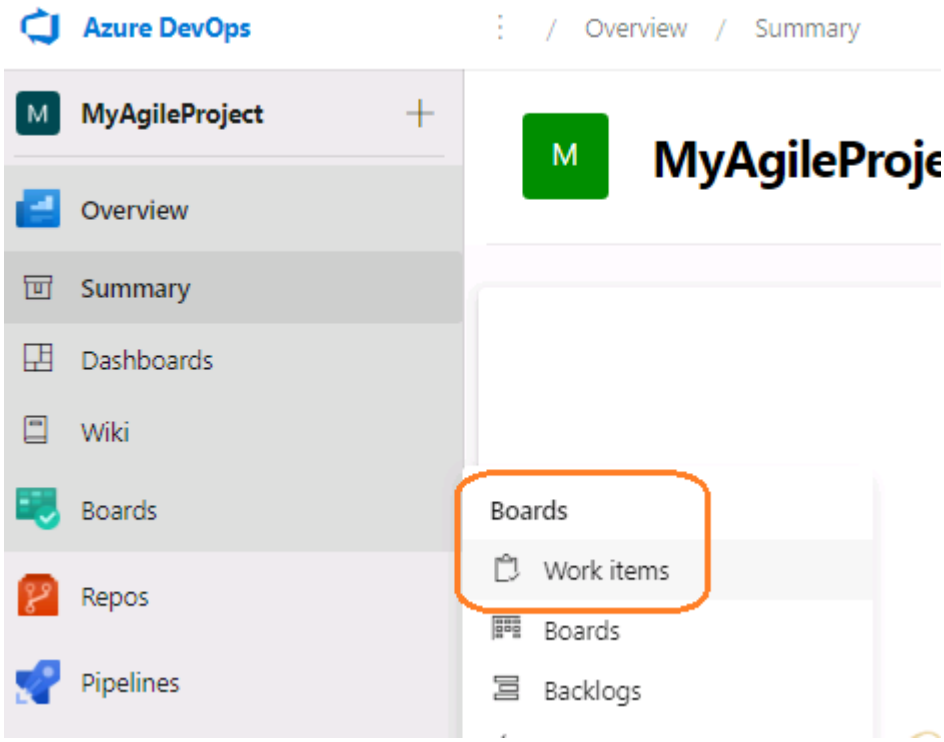
2. Enter **MyAgileProject** as the project name, and set the visibility as **Private** , select **Git** from the **Version control** drop-down, and **MyAgile** from the Work item process drop-down. Click **Create.**



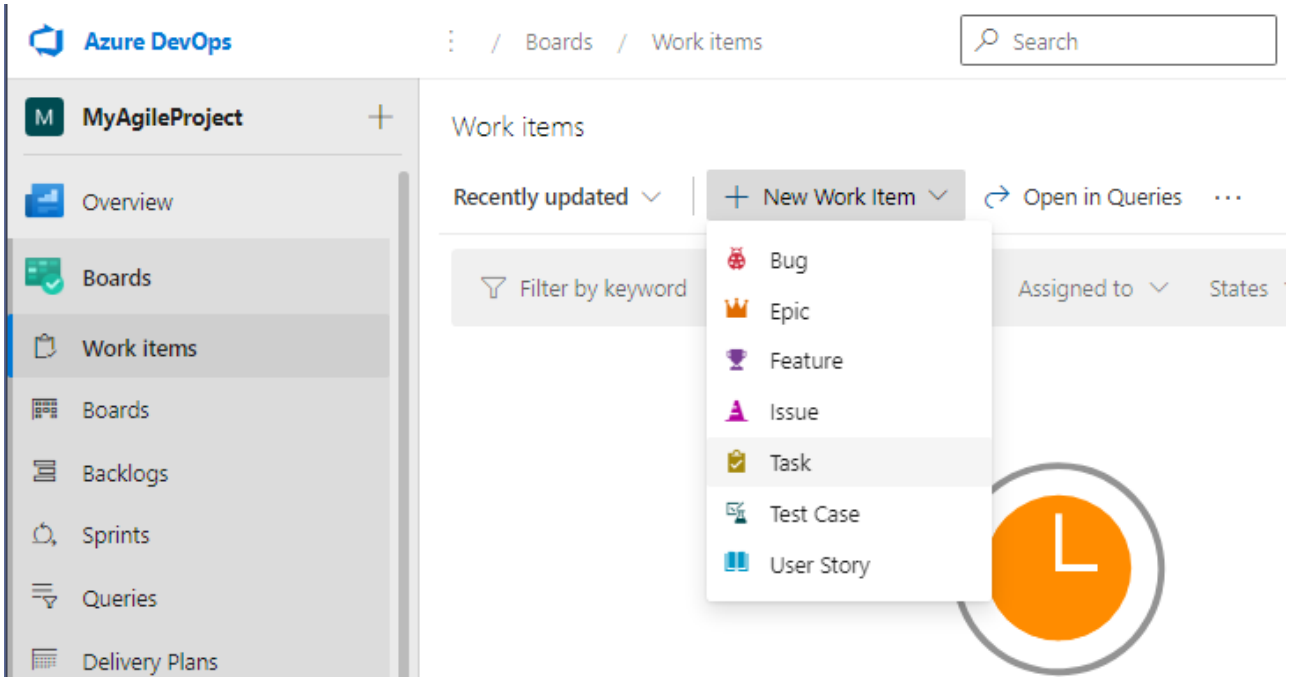
Alternatively, you can also convert existing Agile project to use MyAgile process



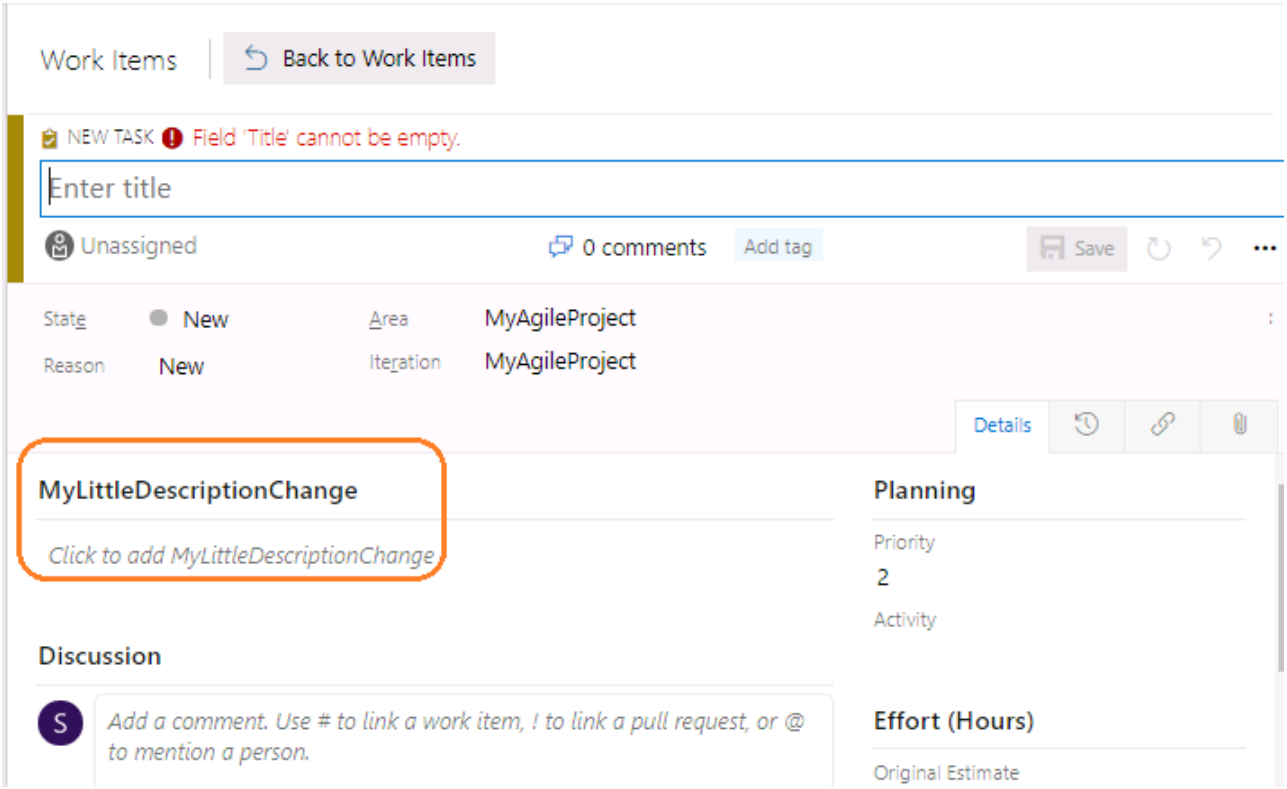
3. Click **Boards | Work Items**



4. Click **Task** under **New Work Item**



5. Verify the change you made.



6. You can move away from the screen and discard the changes. We don't need to create any work item right now.

Exercise 6: Project Notifications

Objectives

After completing this lab, you will be able to:

- Create Project Notifications.

Prerequisites

- Complete Exercise 2.

Scenario

Project notifications allow you to receive alerts when an event of interest occurs in Azure DevOps Services. For example, you may want to be notified by email when a new work item is assigned to you. You might also want to be notified if a build fails so that you can take immediate action to remediate the situation. You can create an alert, which targets a team or a specific user.

Tasks

1. Task 1: Team Notifications
2. Task 2: Create a Notification

Module 2: **Projects**, **Lab 1: Projects**, Exercise 6: Project Notifications

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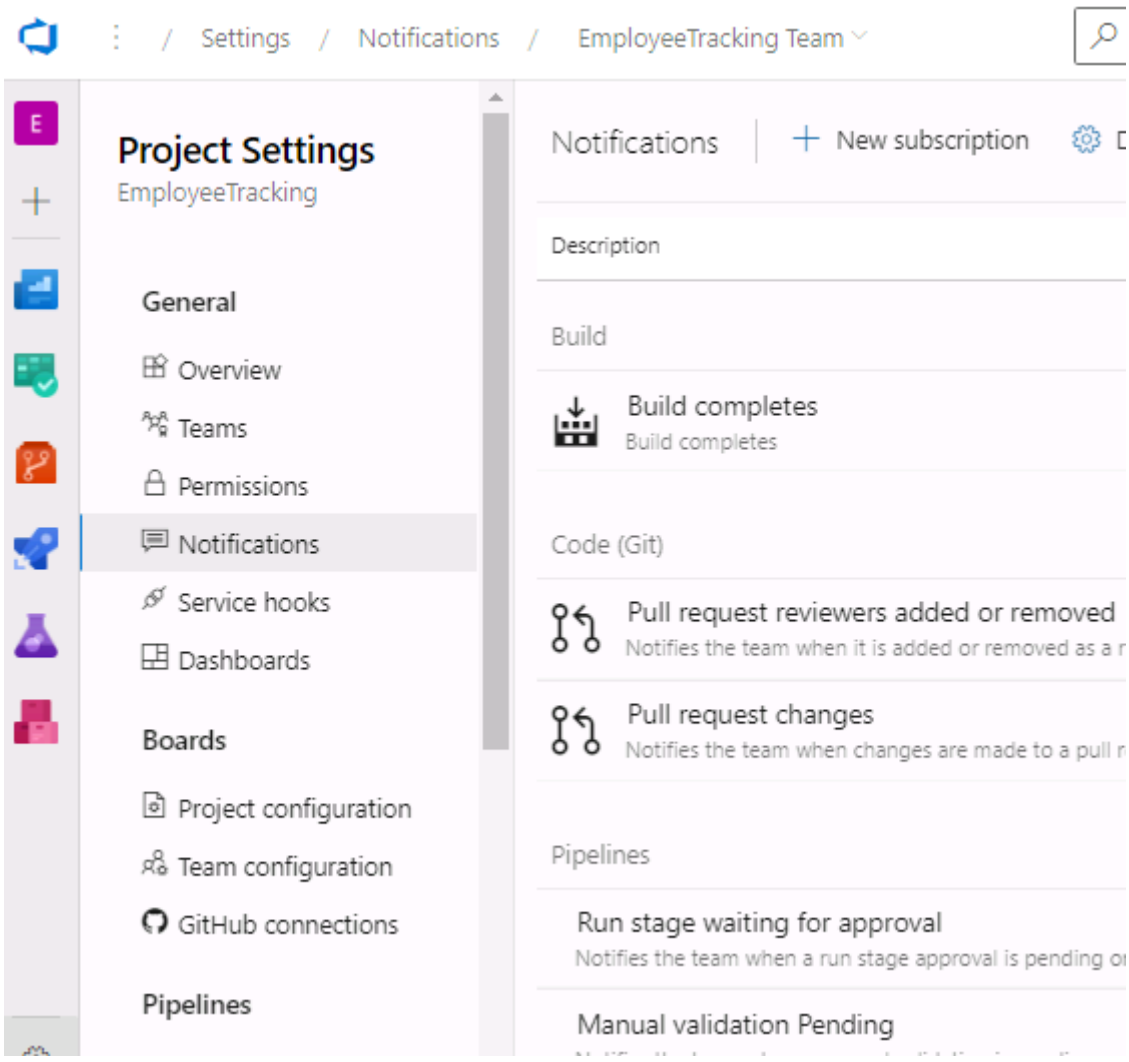
Task 1: Team Notifications

> A team notification is an alert that targets all members of a team when an event occurs in Azure DevOps Services.

1. Navigate to the **EmployeeTracking** project in the Web Portal in your browser.
2. At the bottom-left corner of the Web Portal, click **Project settings** and then click **Notifications** under **General**.



3. You can click different categories to filter the alerts that you, or the team you belong to, have subscribed to. You can also create a new alert by clicking the **New subscription** link.

Module 2: **Projects**, **Lab 1: Projects**, Exercise 6: Project Notifications

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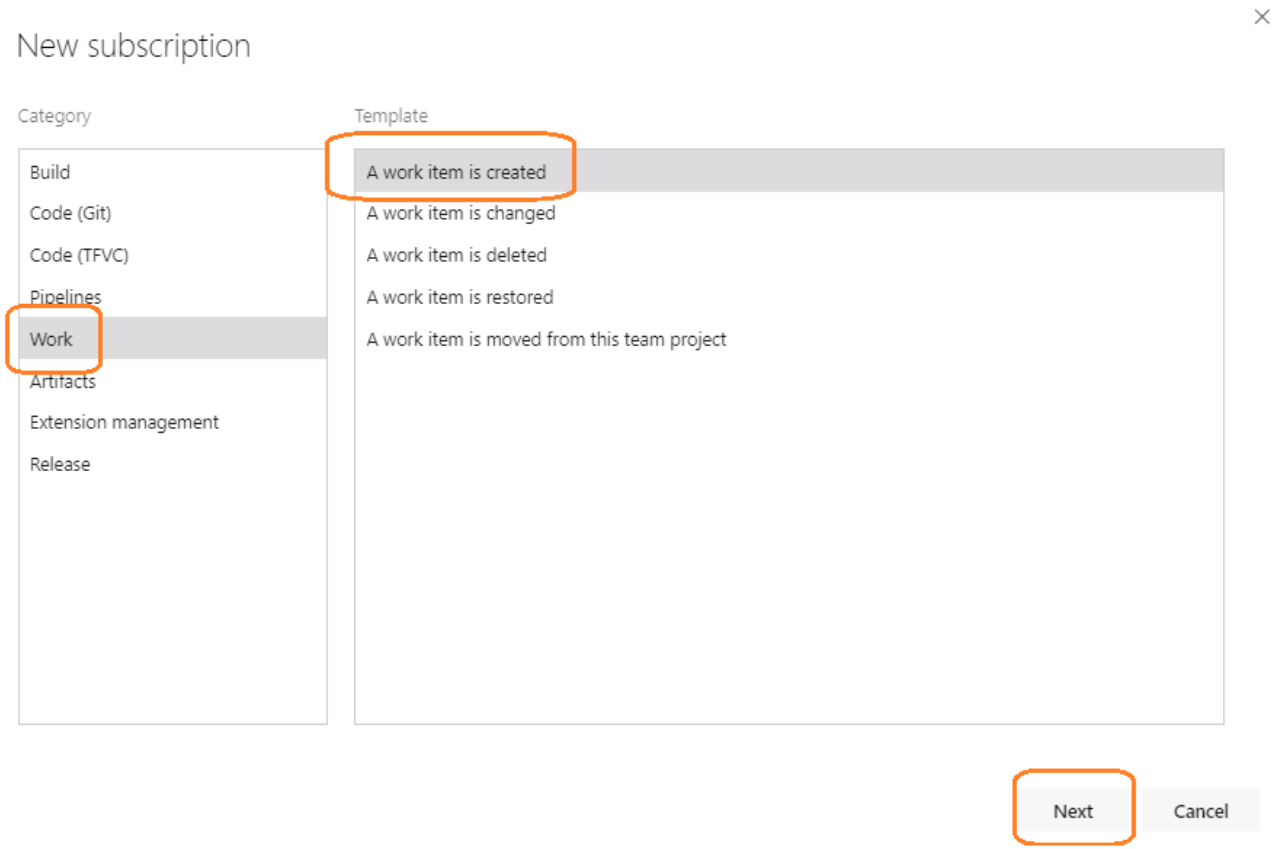
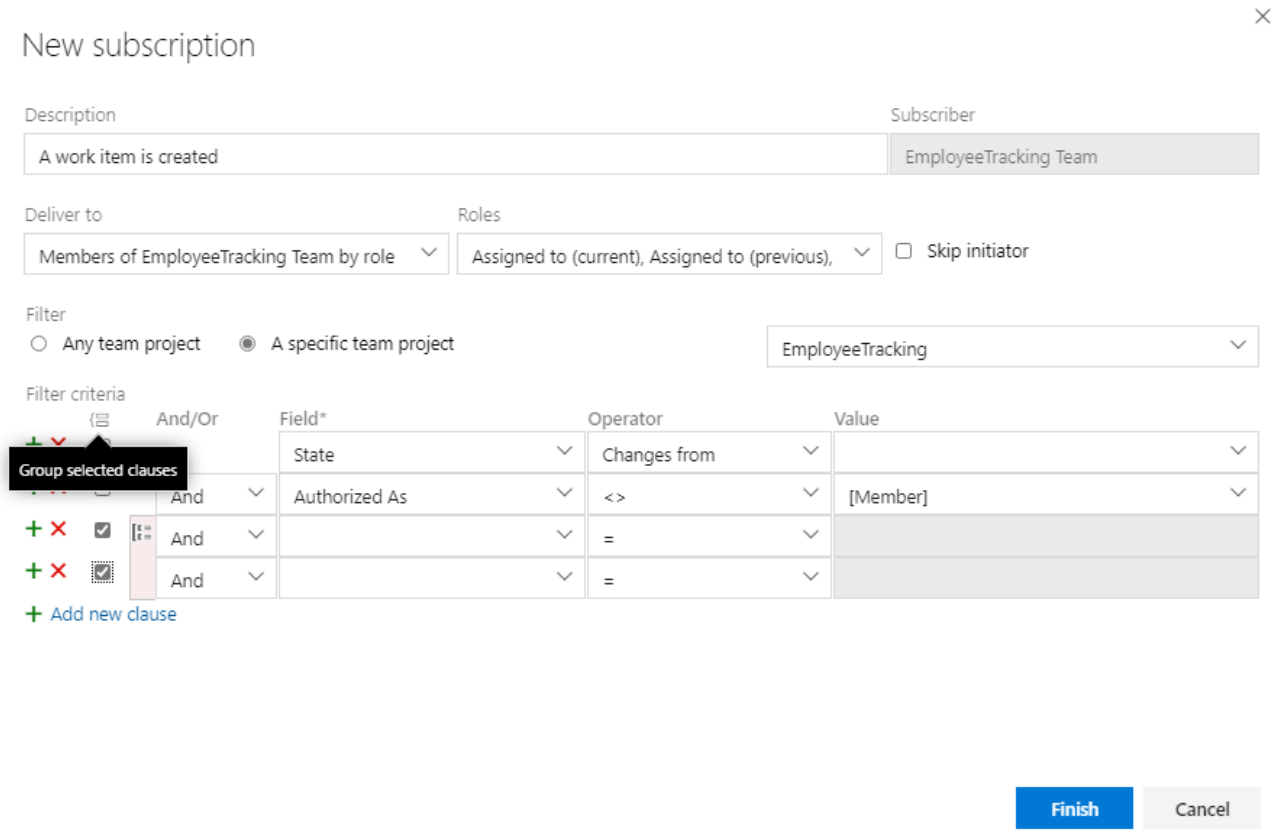
Task 2: Create a Notification

1. Click the **New subscription** link on the **Notifications** page. When you start with a template, default filters are created for you. Click **Work** -> **A work item is created** and click **Next**.



2. Look at the different fields. You can change the filter criteria and select additional filters. To group the clauses, select both the checkboxes and then click the **Group selected clauses** icon in the filter header.



3. Click **Cancel.** Close your browser.

Lab 2: PartsUnlimited Lab Setup

###Introduction

In this lab, you will setup **PartsUnlimited** project from Azure DevOps Demo Generator and use this project in some of the later labs.

Exercise 1: Configuring the PartsUnlimited Project

Objectives

After completing this lab, you will have:

- PartsUnlimited project created in your Azure DevOps organization using the Demo Generator.

Prerequisites

- Exercise 1: Manage Organizations

Estimated Time to Complete This Lab

15 minutes

Module 2: **Projects**, **Lab 2: PartsUnlimited Lab Setup**, Exercise 1: Configuring PartsUnlimited Project

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Exercise 1: Configuring the PartsUnlimited Project

Objectives

After completing this exercise, you will have:

- PartsUnlimited project created in your Azure DevOps organization using the Azure DevOps Demo Generator.

Prerequisites

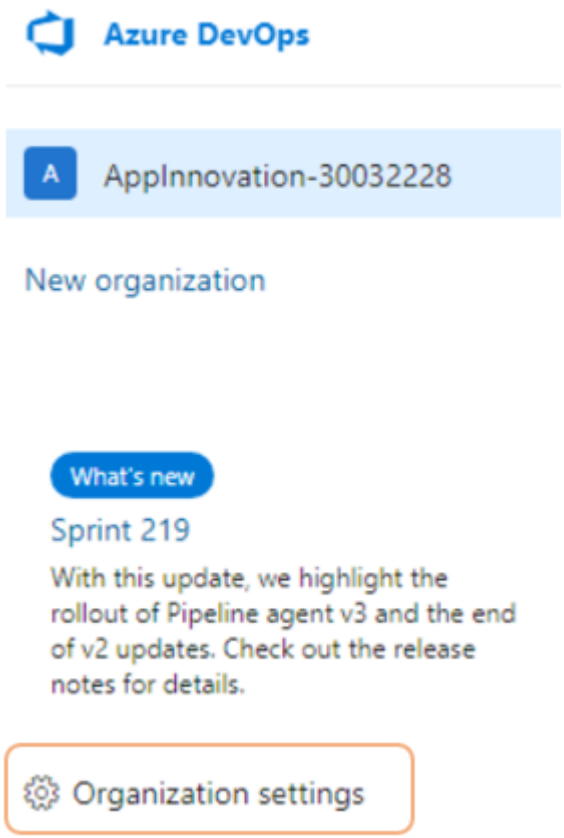
None

Tasks

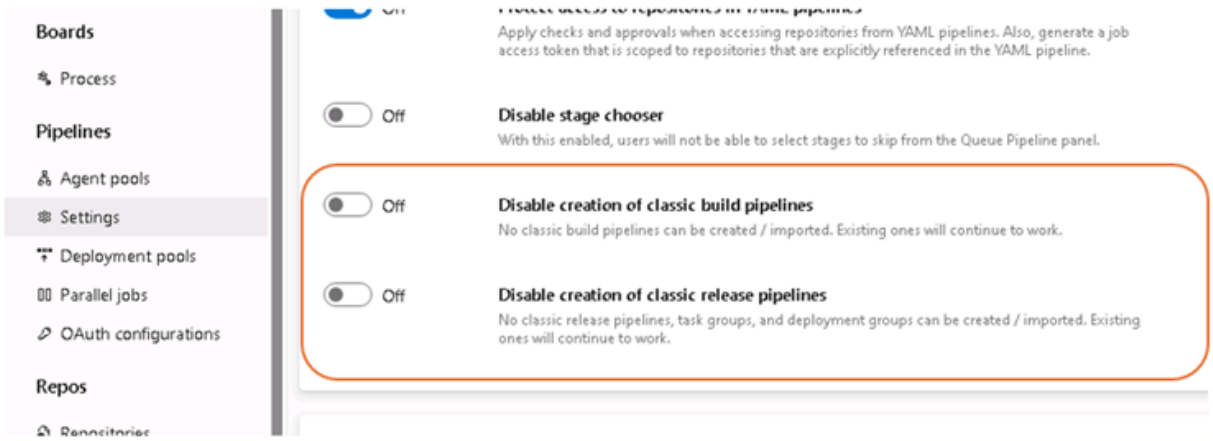
- Generate PartsUnlimited Project

Task 1: Generate PartsUnlimited Project

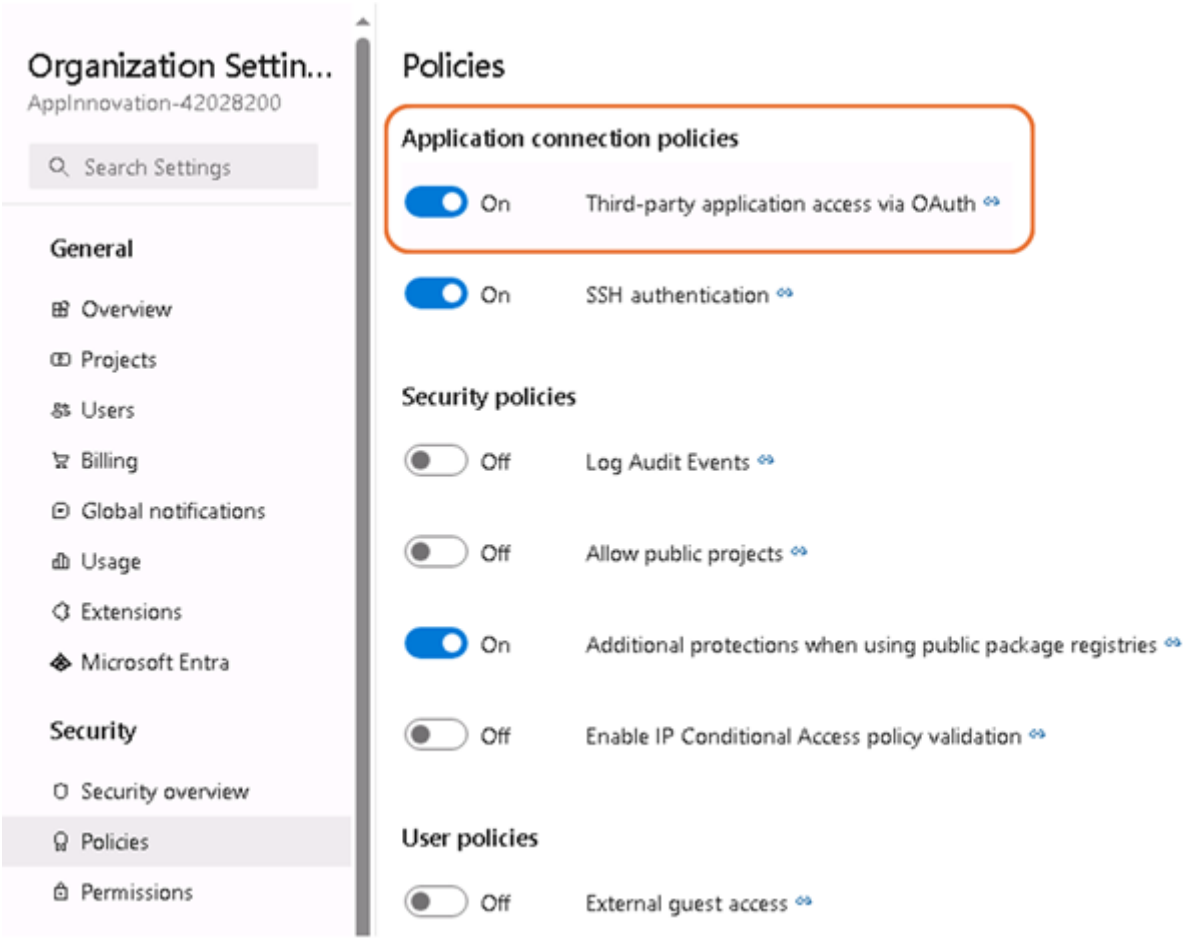
1. Navigate to your Azure DevOps organization (**https://dev.azure.com/AppInnovation-[YourName]**) in the web browser and click on **Organization settings** in the bottom-left of the page.



2. Click on **Settings** under the *Pipelines* section and under *General*, turn off **Disable creation of classic build pipelines** and **Disable creation of classic release pipelines**.



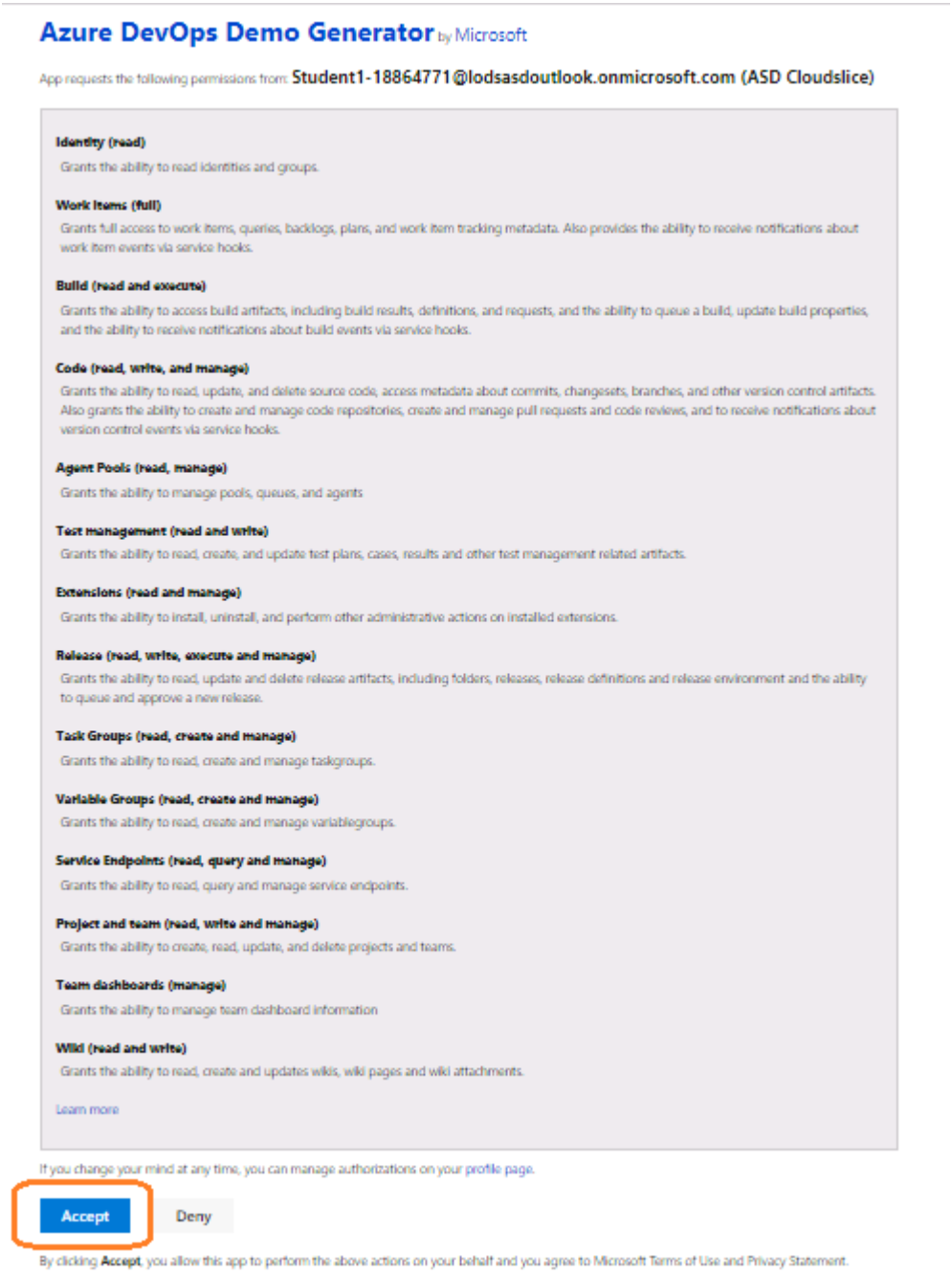
3. Click on **Policies** under the *Security* section and under *Application connection policies*, turn on **Third-party application access via OAuth**.



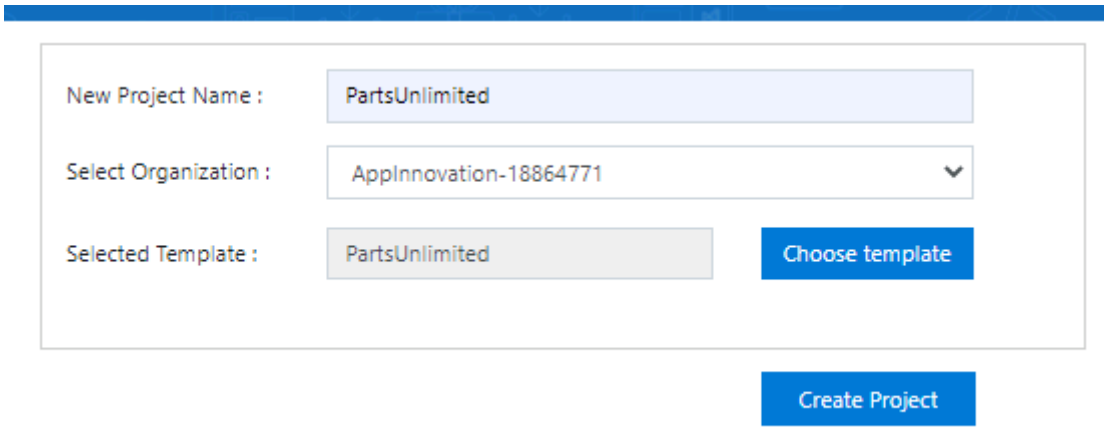
4. Azure DevOps Demo Generator helps you create projects on your Azure DevOps Organization with pre-populated sample content that includes source code, work items, iterations, service endpoints, build and release definitions based on a template you choose. Open a new tab in the web browser and navigate to https://demogen-code.azurewebsites.net/ to create a new Team Project in your organization using one of the templates.

5. Click on **Sign in** and if asked to enter username/password, enter your credentials and then click on the **Sign in** button.

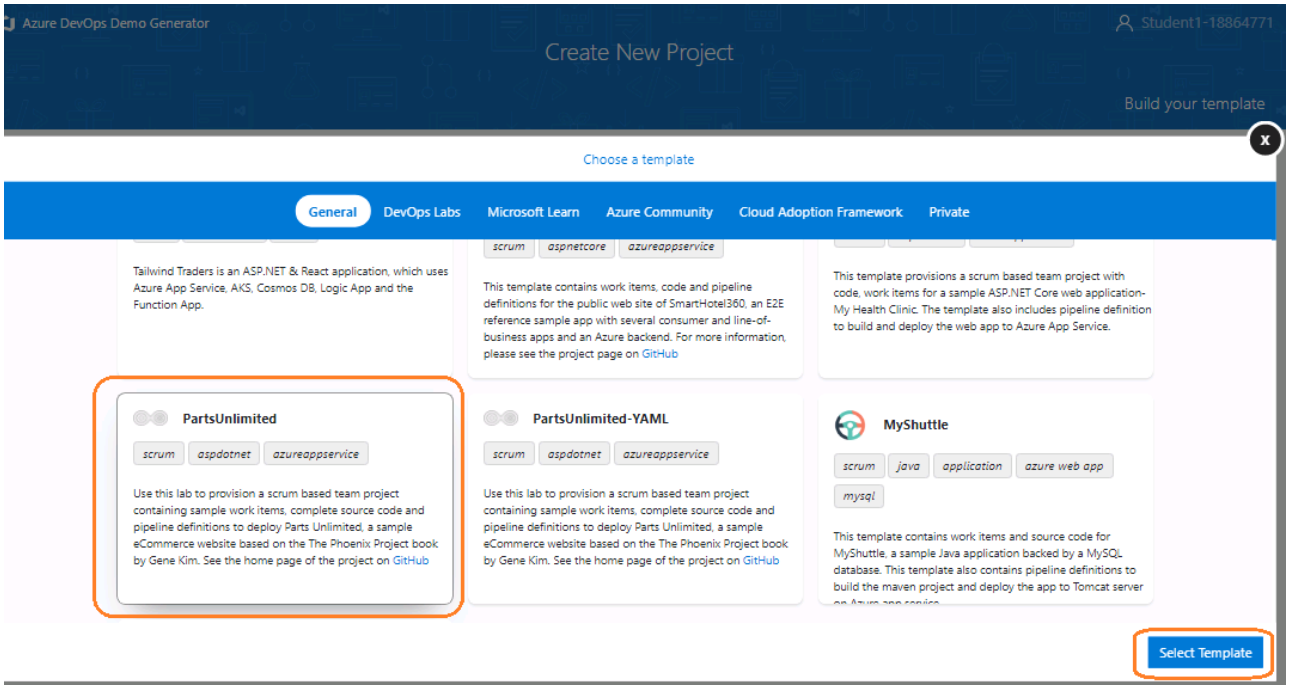
6. **Accept** the permission requests for accessing your subscription.



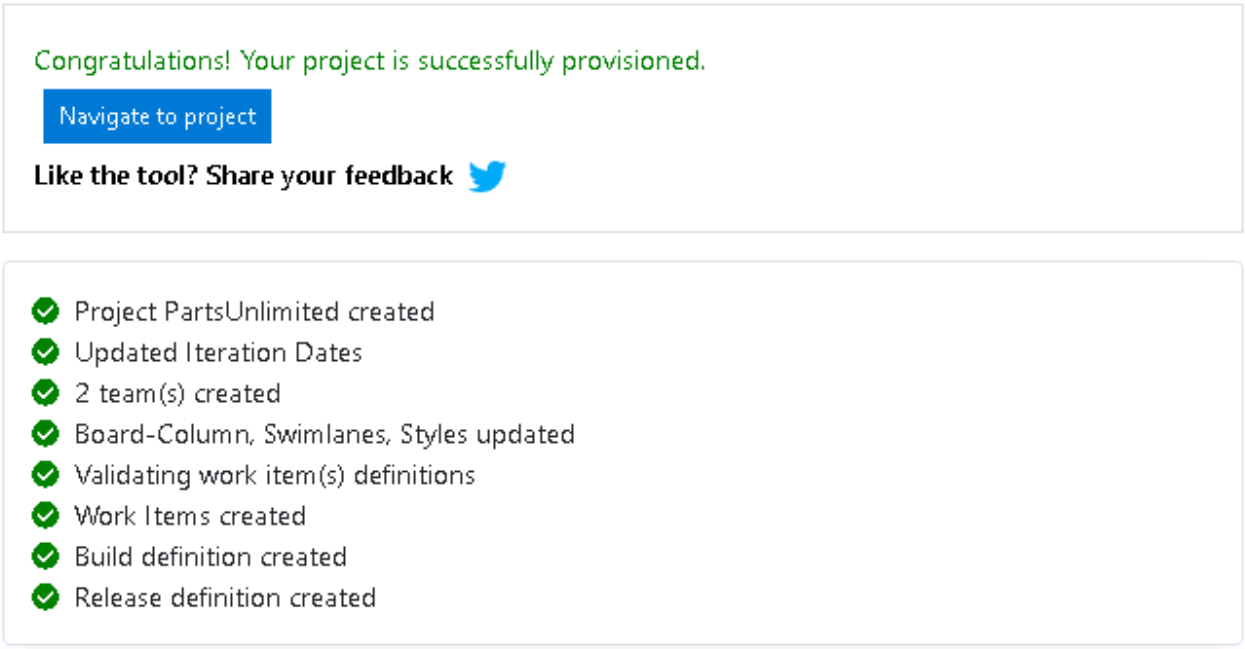
7. Select the **AppInnovation-[YourName]** organization from the **Select Organization** drop-down. Use **PartsUnlimited** as the **New Project Name**.



8. Click on **Choose template** and select the **PartsUnlimited** template (**not** PartsUnlimited-YAML) and click **Select Template**.



9. Click on **Create Project** and wait for the process to complete.



10. Once complete, navigate to Azure DevOps Services and confirm that you see **PartsUnlimited** project.