

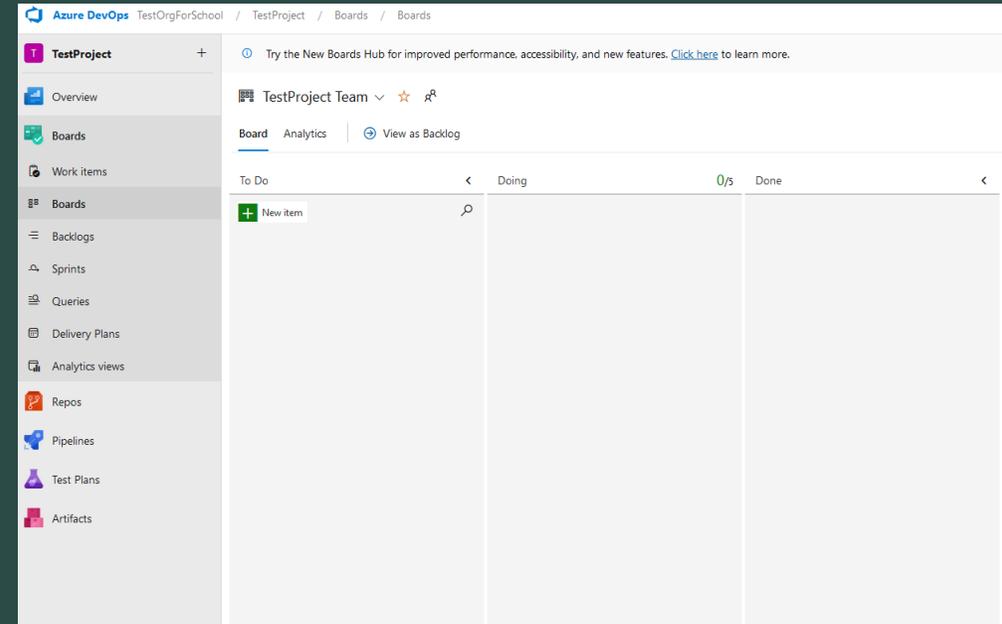


How to use Azure DevOps Organizations

By Evan Vicidomini

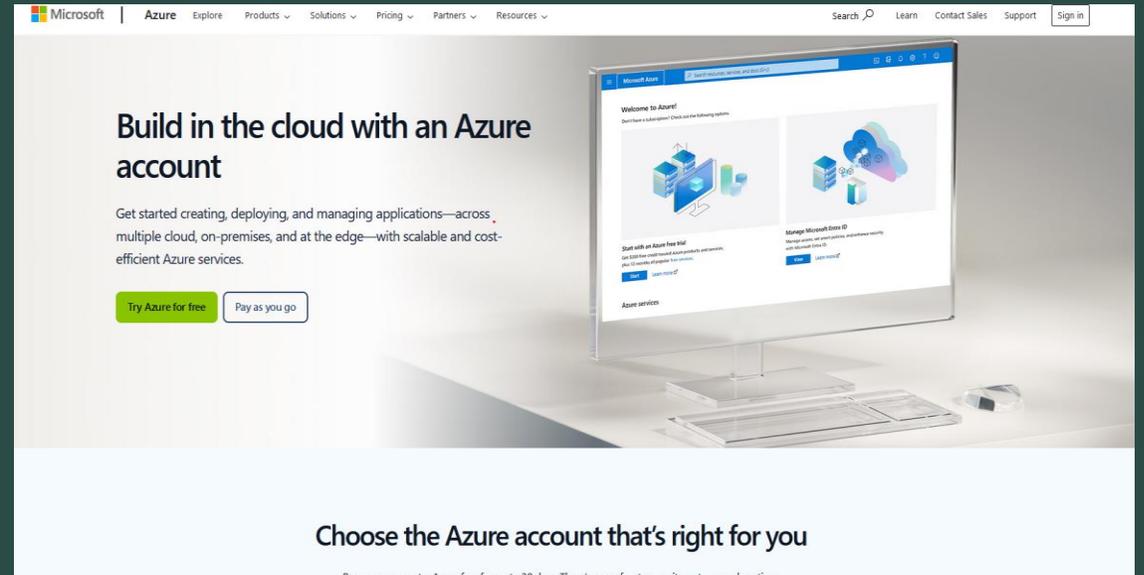
What is Azure DevOps?

- Azure DevOps is a tool used for organizations to collaborate on software projects.
- Projects are created on the DevOps home page that can be accessed by anyone that works at an organization.
- Tools include storage for repositories, user stories on organization boards, and pipeline tools.



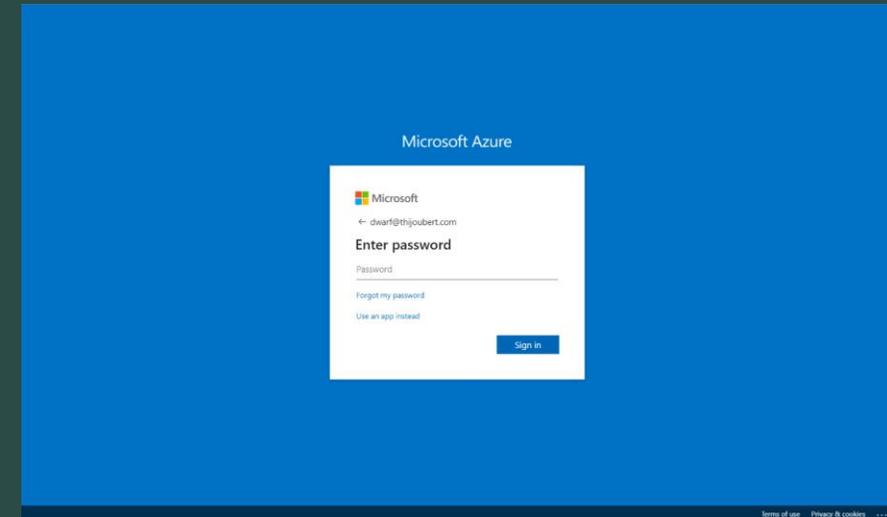
How to Access Azure

- To access Azure DevOps, you need to be authorized by an organization to use it. Azure requires a paid subscription to use.
- Most companies required you to have a Microsoft 365 Account. This account is used to access Azure.
- Azure is a great way for software developers and engineers to complete their work in a hybrid or remote setting.
- Azure has many other tools beside DevOps that are great skills required for a lot of developer jobs.



Logging Into Azure

- Go to portal.azure.com to access Azure
- To access it, use an email from an organization that you work for (this will usually be a Microsoft Account Email).
- Make sure that you have Two-Factor Authentication set up for future use. If already created, use an authenticator application on your smartphone.



Multi-Factor Authentication

- MFA is important for using Azure because many organizations use this platform for storing sensitive information and for their project organization.
- MFA protects your account by using both a password and some verification from a device.
- It can ask for your email, phone number, or code from authenticator application.
- Authenticator applications include Google Authenticator, Duo Mobile, Microsoft Authenticator, etc.

Everything we recommend

Top pick 🔖



Duo Mobile
The best two-factor authentication app
Duo Mobile is easy to use and pleasant to look at, and it can securely back up your information.

Buying Options
[Buy from Duo \(free\)](#)

Also great 🔖

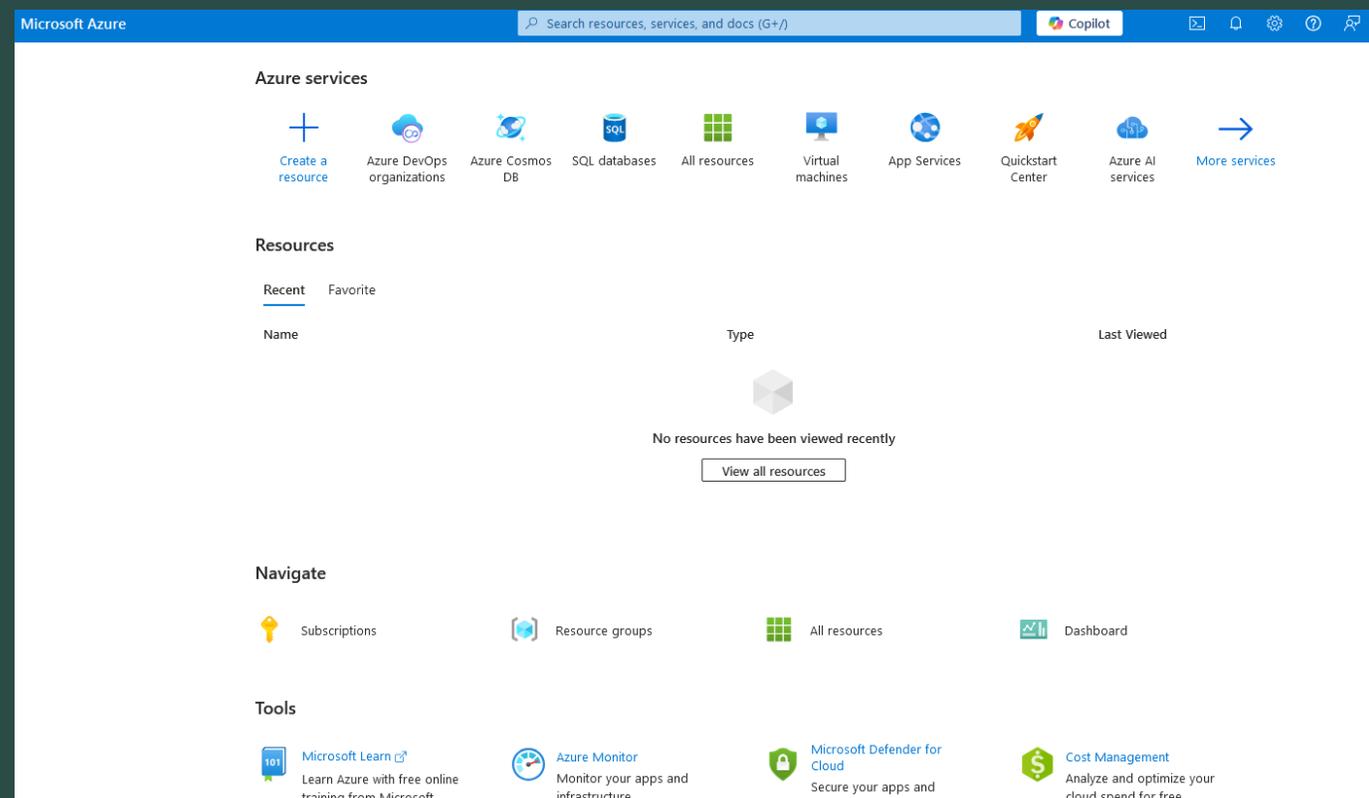


Google Authenticator
Easy to use, with a caveat
Google Authenticator is a streamlined, straightforward authentication app with a surprising number of useful features. But users should be aware of how it secures its backups.

Buying Options
[Buy from Google \(free\)](#)

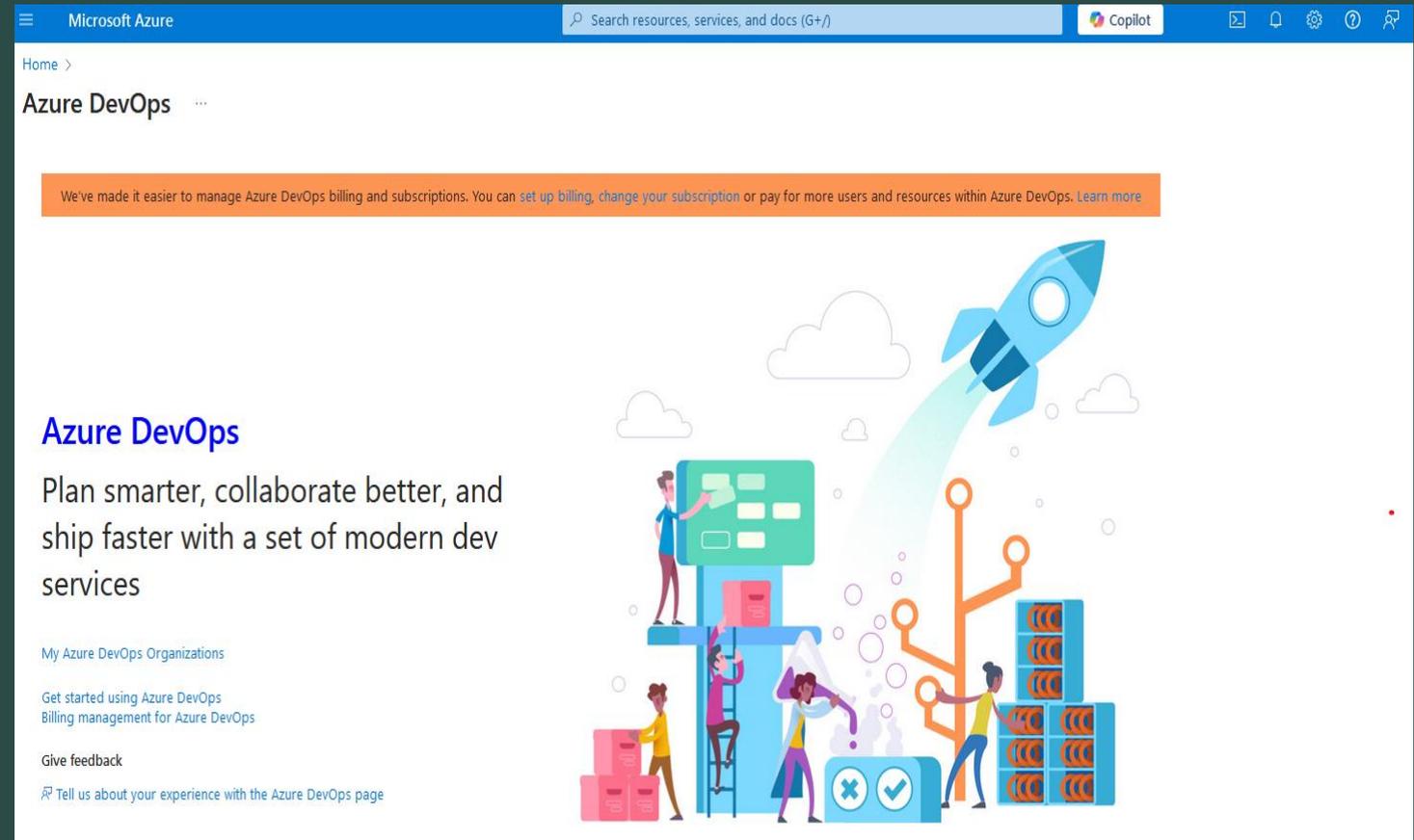
Azure Home Page

- The Azure Home Page has many tools that are used in organizations, including Cosmos DB, a database service from Microsoft similar to MySQL Workbench.
- Look for "Azure DevOps Organizations" in Azure Services. It can be searched for in the search bar on the top of the page.
- Organizations is where DevOps is located, and it is where projects are organized.



Organizations in Azure

- Once the Azure DevOps page is visible on Azure, make sure to click on the link that says "My Azure DevOps Organizations" to begin.
- The page will also show options for billing and getting started, but these are not important if you are already working for an organization that has Azure DevOps setup.



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Azure DevOps

We've made it easier to manage Azure DevOps billing and subscriptions. You can [set up billing](#), [change your subscription](#) or [pay for more users and resources](#) within Azure DevOps. [Learn more](#)

Azure DevOps

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

[My Azure DevOps Organizations](#)

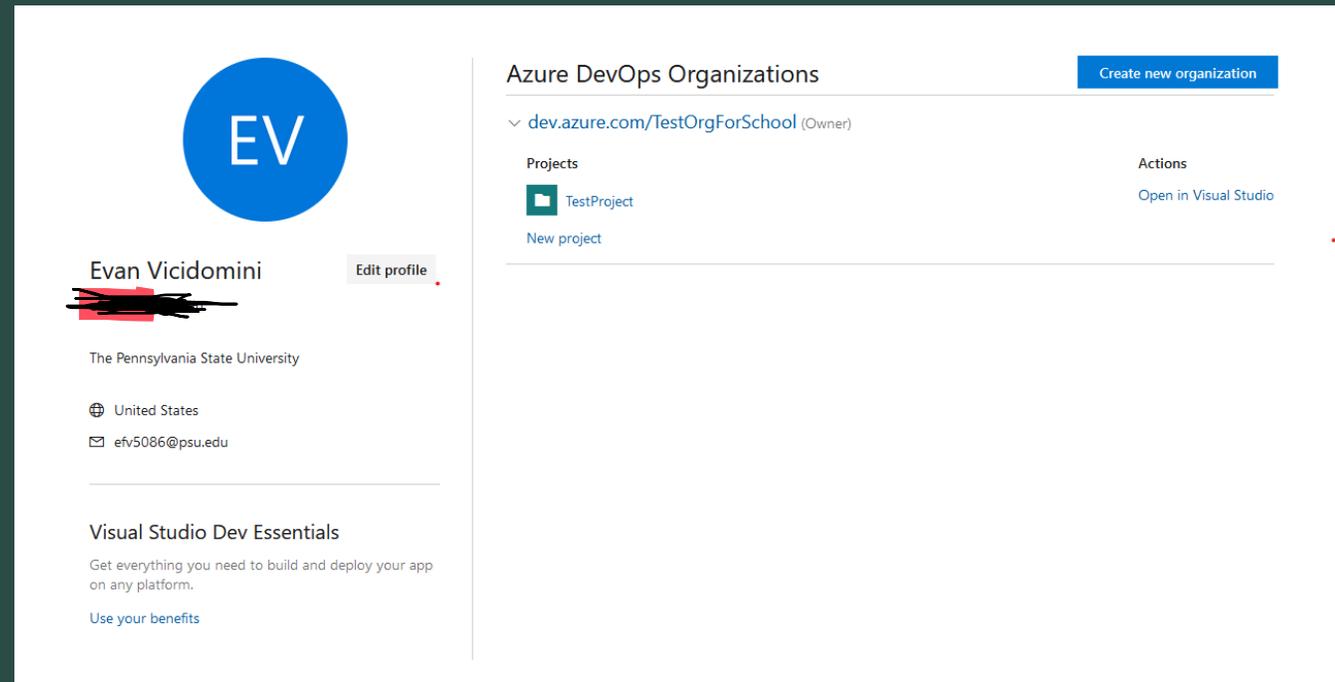
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Access My Organizations in Azure DevOps

- The link will display this page. It shows the name of the Microsoft Account that is registered on Azure.
- It shows the organizations available and the projects that are in the organizations.
- Clicking on the link below "Azure DevOps Organizations" will go to Azure DevOps.
- It shows projects and organizations in more detail.

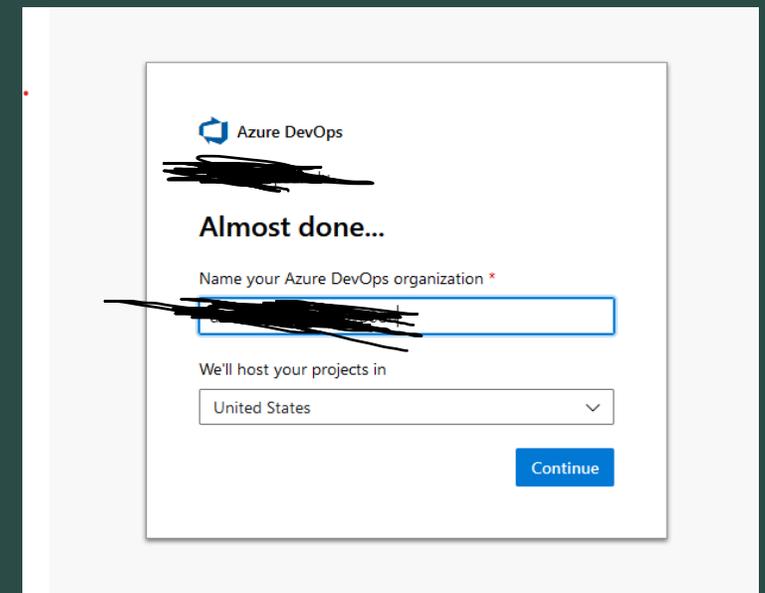
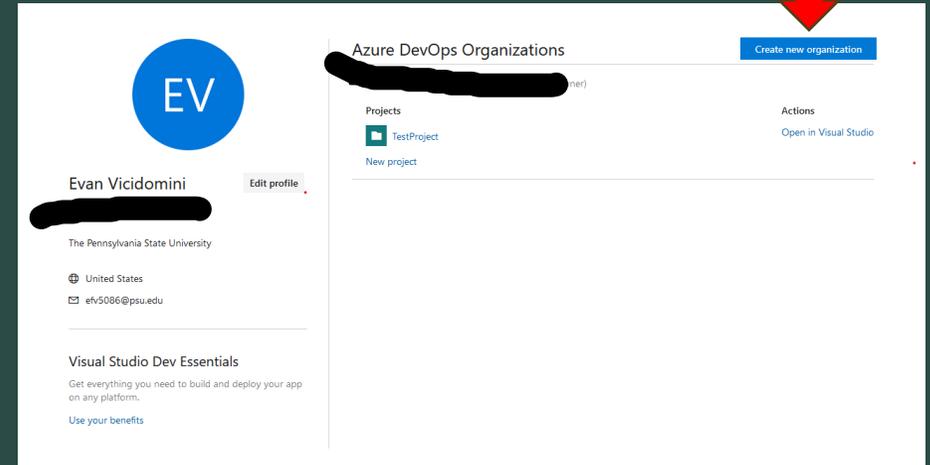


The screenshot displays the Azure DevOps user interface. On the left, the user profile for Evan Vicidomini is shown, including a blue circular profile picture with the initials 'EV', a redacted name, and contact information: 'The Pennsylvania State University', 'United States', and 'efv5086@psu.edu'. Below the profile is a section for 'Visual Studio Dev Essentials' with a 'Use your benefits' link. On the right, the 'Azure DevOps Organizations' section is visible, featuring a 'Create new organization' button and a dropdown menu for 'dev.azure.com/TestOrgForSchool (Owner)'. Underneath, there is a table with columns for 'Projects' and 'Actions'. A project named 'TestProject' is listed with an 'Open in Visual Studio' action link. A 'New project' link is also present.

Basics of Creating an Organization

Create new Organization Button

- Depending on how you access Azure DevOps, you can create organizations of your own.
- If you work for an organization already, do not create one, as it should already be set up for you.
- To create an organization, click "Create new organization" and follow the instructions on the screen.
- This is an uncommon, and may not every be used, but it is still important to know.

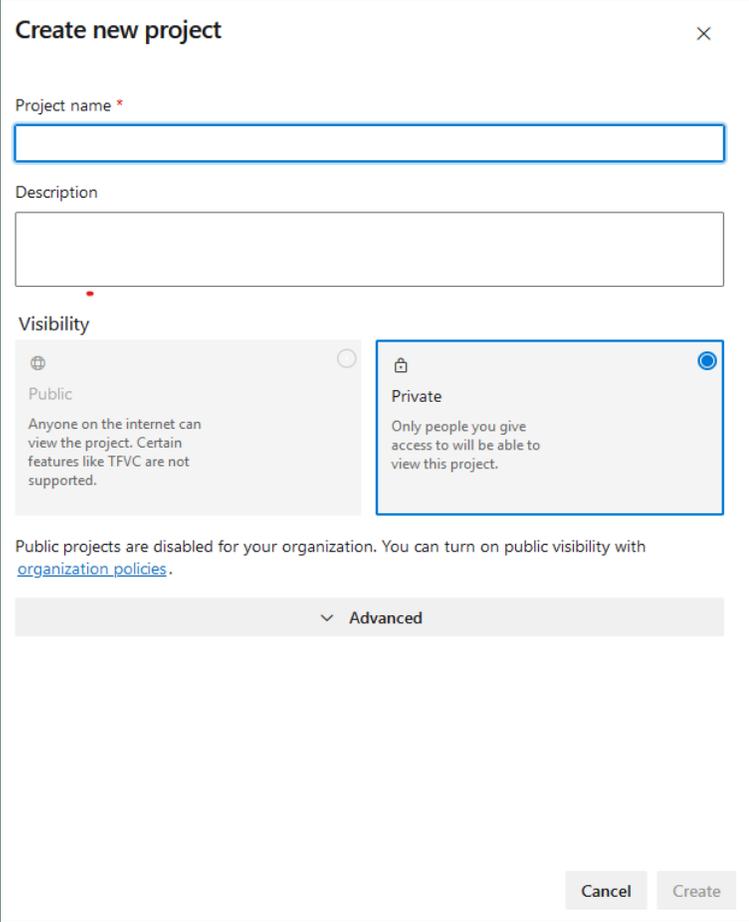


Azure DevOps Home Page

The screenshot shows the Azure DevOps interface. At the top left is the 'Azure DevOps' logo. To the right is a search bar and a user profile icon labeled 'EV'. The left sidebar shows the organization 'TestOrgForSchool' with a 'New organization' link below it. The main area is titled 'TestOrgForSchool' and has a '+ New project' button. Below the title are tabs for 'Projects', 'My work items', and 'My pull requests'. A 'Filter projects' button is on the right. The main content area displays a single project card for 'TestProject' with a purple 'T' icon and a menu of five dots. At the bottom left, there is a gear icon for 'Organization settings'.

Projects in Azure DevOps

- This is the main page for Azure DevOps. Click on a project that is already created to get started.
- To create a project, find the blue button that says, "New Project" and follow the steps on the screen.
- This is also uncommon when working for a major organization, as they will have projects already created.

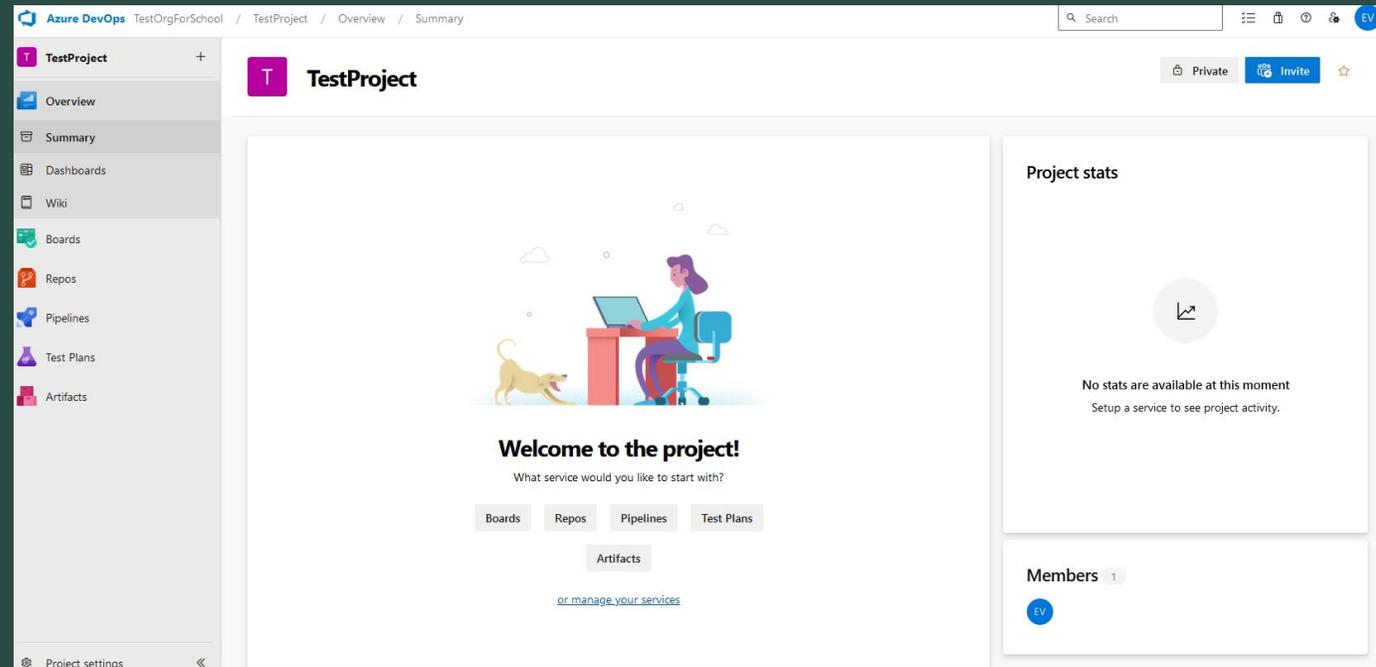


The screenshot shows the 'Create new project' dialog box in Azure DevOps. It has a title bar with 'Create new project' and a close button (X). The form contains the following fields and options:

- Project name ***: A text input field with a blue border.
- Description**: A text area with a white background and a thin border.
- Visibility**: Two radio button options:
 - Public**: Represented by an open lock icon. Description: "Anyone on the internet can view the project. Certain features like TFVC are not supported." This option is currently unselected.
 - Private**: Represented by a closed lock icon. Description: "Only people you give access to will be able to view this project." This option is selected and highlighted with a blue border.
- Public projects are disabled for your organization. You can turn on public visibility with [organization policies](#).**: A note with a link to organization policies.
- Advanced**: A dropdown menu currently set to 'Advanced'.
- Buttons**: 'Cancel' and 'Create' buttons at the bottom right.

Project Page

- This is the start of a project that an organization can be working on. This depends on the platforms that they use.
- Organizations use many SaaS solutions like Salesforce, Oracle Cloud, etc.
- These platforms can be customized for the needs of an organization.
- Azure DevOps is used to keep track of new features of a software product.

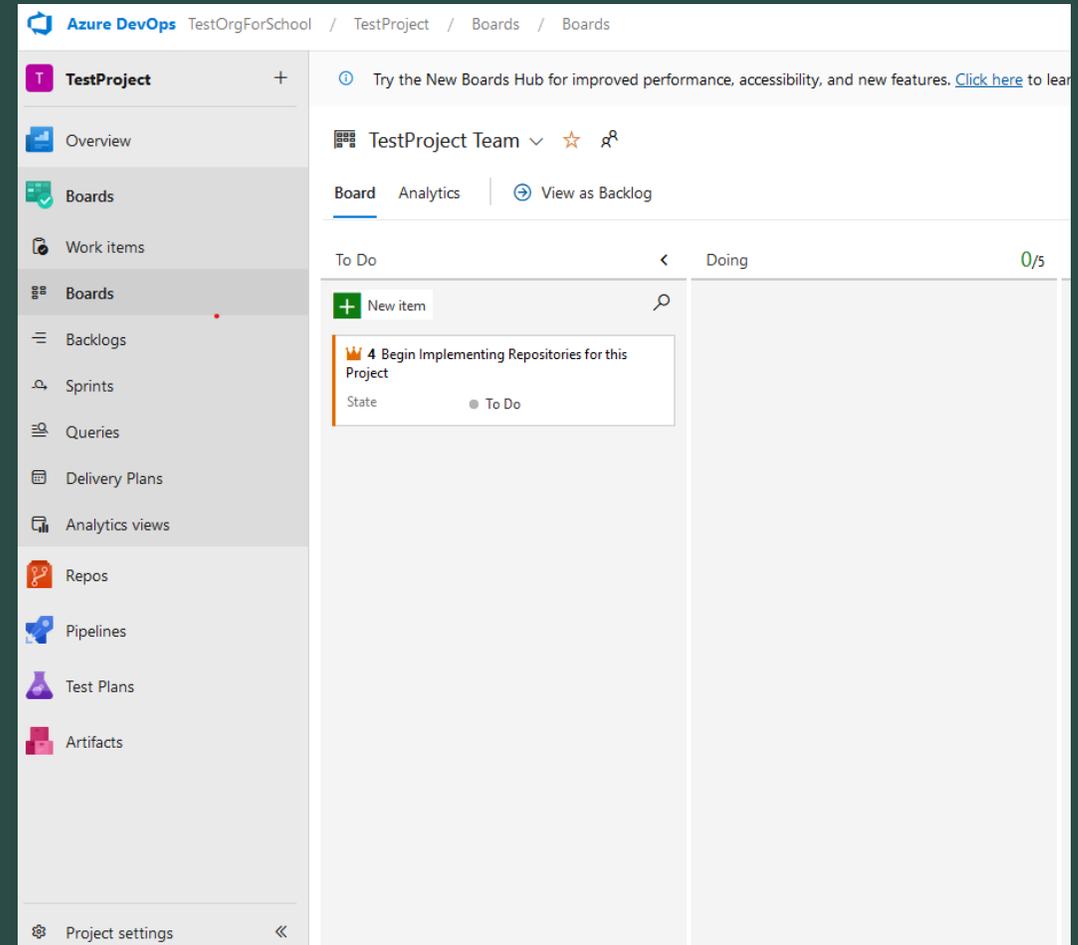


Overview

- The overview page describes what a project is about. It has the summary section, dashboards, and a wiki.
- The summary is an overview of the project, the dashboards show parts of a project and the development process, and the wiki is general info on how to complete certain parts of a project.
- This is not the most important part of the page on DevOps organizations, but it can help for new hires or interns.

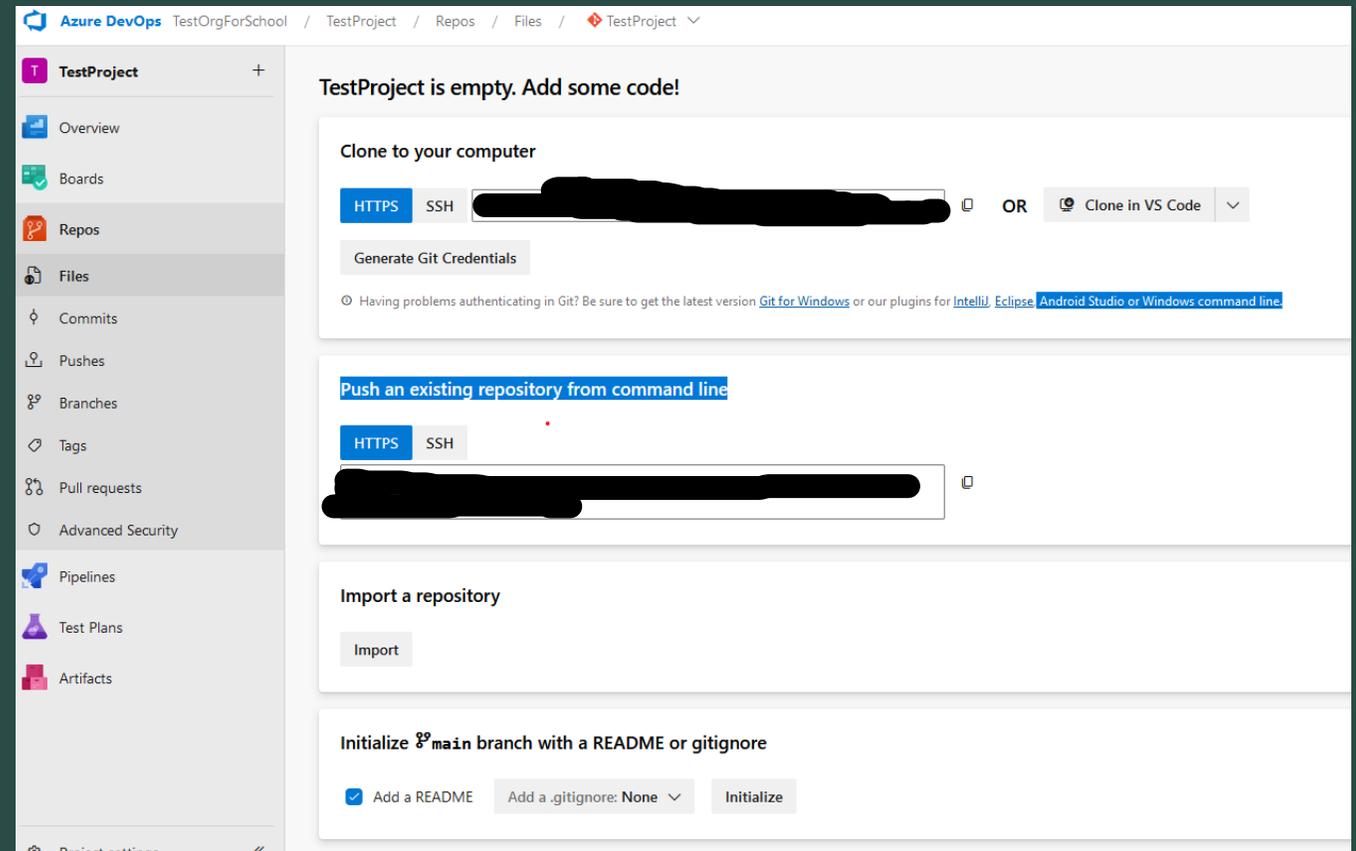
Boards

- This is the main area to see work items for a project.
- Main companies use Agile Scrum Methodologies for their software development process. The picture here is where use stories are created for new features.
- This section can also include bugs, issues, etc.
- Organizations are also responsible for creating product backlogs for new features. This is completed here.



Repos

- Repos (also known as programming repositories) is for the storage of software projects that an organization is working on.
- Git is a version control system used for keeping track of changes made to repos.
- Software developers and engineers can clone repositories to an integrated development environment (IDE) and make changes to code. These changes can be created in branches.



The screenshot displays the Azure DevOps web interface for a repository named 'TestProject'. The breadcrumb navigation at the top reads 'TestOrgForSchool / TestProject / Repos / Files / TestProject'. The left-hand navigation pane includes links for 'TestProject', 'Overview', 'Boards', 'Repos', 'Files', 'Commits', 'Pushes', 'Branches', 'Tags', 'Pull requests', 'Advanced Security', 'Pipelines', 'Test Plans', and 'Artifacts'. The main content area is titled 'TestProject is empty. Add some code!' and contains four sections:

- Clone to your computer:** Features buttons for 'HTTPS' and 'SSH' (the latter is selected), a text input field containing a redacted URL, and an 'OR' separator followed by a 'Clone in VS Code' button with a dropdown arrow. Below this is a 'Generate Git Credentials' button and a link for troubleshooting authentication issues.
- Push an existing repository from command line:** Features buttons for 'HTTPS' and 'SSH' (the latter is selected), and a text input field with a redacted URL.
- Import a repository:** Contains an 'Import' button.
- Initialize main branch with a README or gitignore:** Includes a checked checkbox for 'Add a README', a dropdown menu for 'Add a .gitignore: None', and an 'Initialize' button.

Repos (Continued)

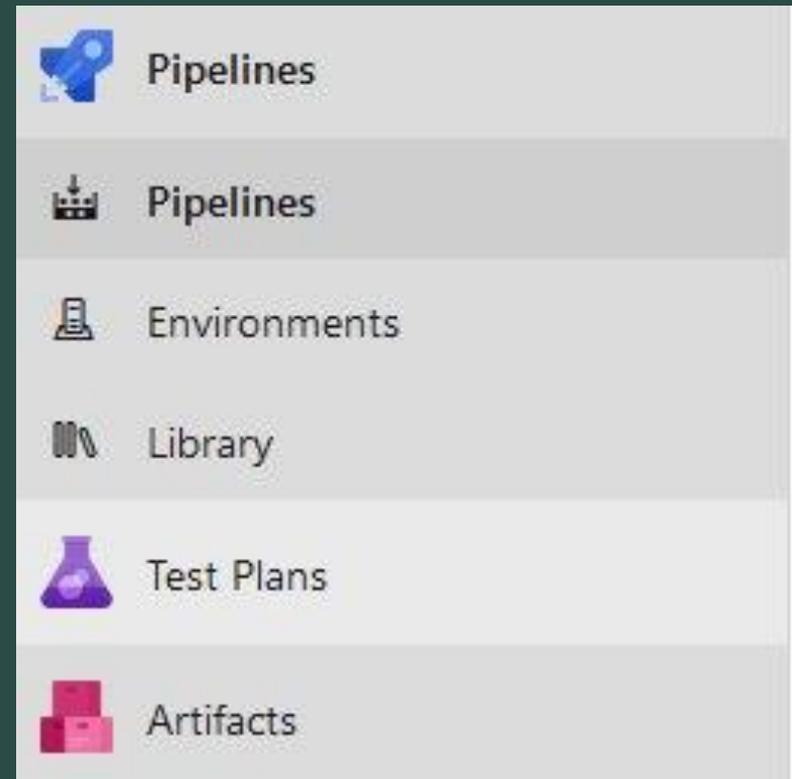
- Commits show comments made to a change in a repo.
- Pushes show the changes pushed to DevOps.
- Branches are copies of the repository that developers make changes to before pushed to the final main branch.
- Other sections are tags, pull requests, and advances security.

The screenshot displays the Azure DevOps interface for a repository named 'TestProject'. The breadcrumb navigation at the top reads 'Azure DevOps TestOrgForSchool / TestProject / Repos / Files / TestProject'. The left sidebar shows a navigation menu with 'Repos' selected. The main content area is titled 'TestProject is empty. Add some code!' and contains the following sections:

- Clone to your computer:** Offers 'HTTPS' and 'SSH' options. The SSH URL is redacted. There is a 'Generate Git Credentials' button and a 'Clone in VS Code' button.
- Push an existing repository from command line:** Offers 'HTTPS' and 'SSH' options. The SSH URL is redacted.
- Import a repository:** Includes an 'Import' button.
- Initialize main branch with a README or gitignore:** Includes a checked 'Add a README' checkbox, a dropdown menu for 'Add a .gitignore: None', and an 'Initialize' button.

Other Tools

- Pipelines are cloud-based tools for automatically building, testing, and deploying programming projects.
- Test plans are for managing test of software products outside of the software development life cycle
- Artifacts are miscellaneous tools and files when developing software products.



Summary

- Azure DevOps is one of the best tools for software project management.
- It is very common and important to know for many software engineering jobs.
- It is one of the most common used SaaS solutions for the workplace.

Works Cited

- <https://azure.microsoft.com/en-us/solutions/devops/tutorial>
- <https://www.cisa.gov/MFA>
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