Seminar

S1

Chapter 2.

The software Process. Methodologies

Introduction to Azure DevOps. Tool Support for Agile Software Development

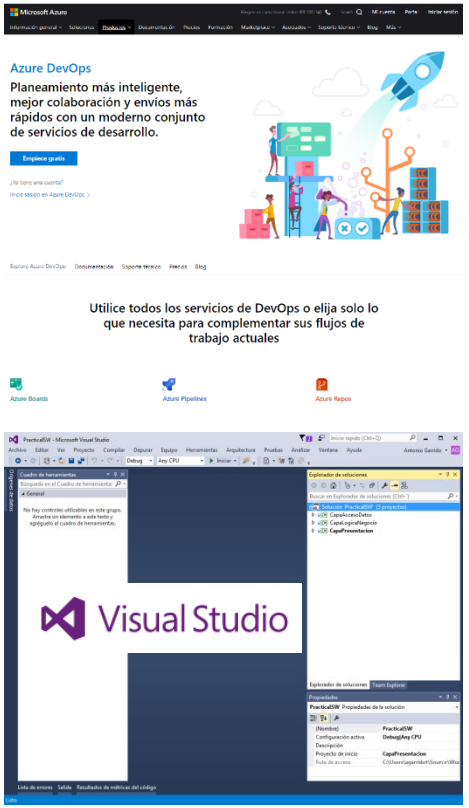
Software Engineering

Computer Science School
DSIC – UPV

Goals

- Apply agile methodology to software development using DevOps (cloud collaboration tool for development teams) and Microsoft Visual Studio

Part 1. Project management with Azure DevOps



Part 2. Visual Studio Project development (Seminar 2)

Part 1. Project Management (Web)

- Ellaborate a project plan applying an agile methodology using DevOps

Steps:

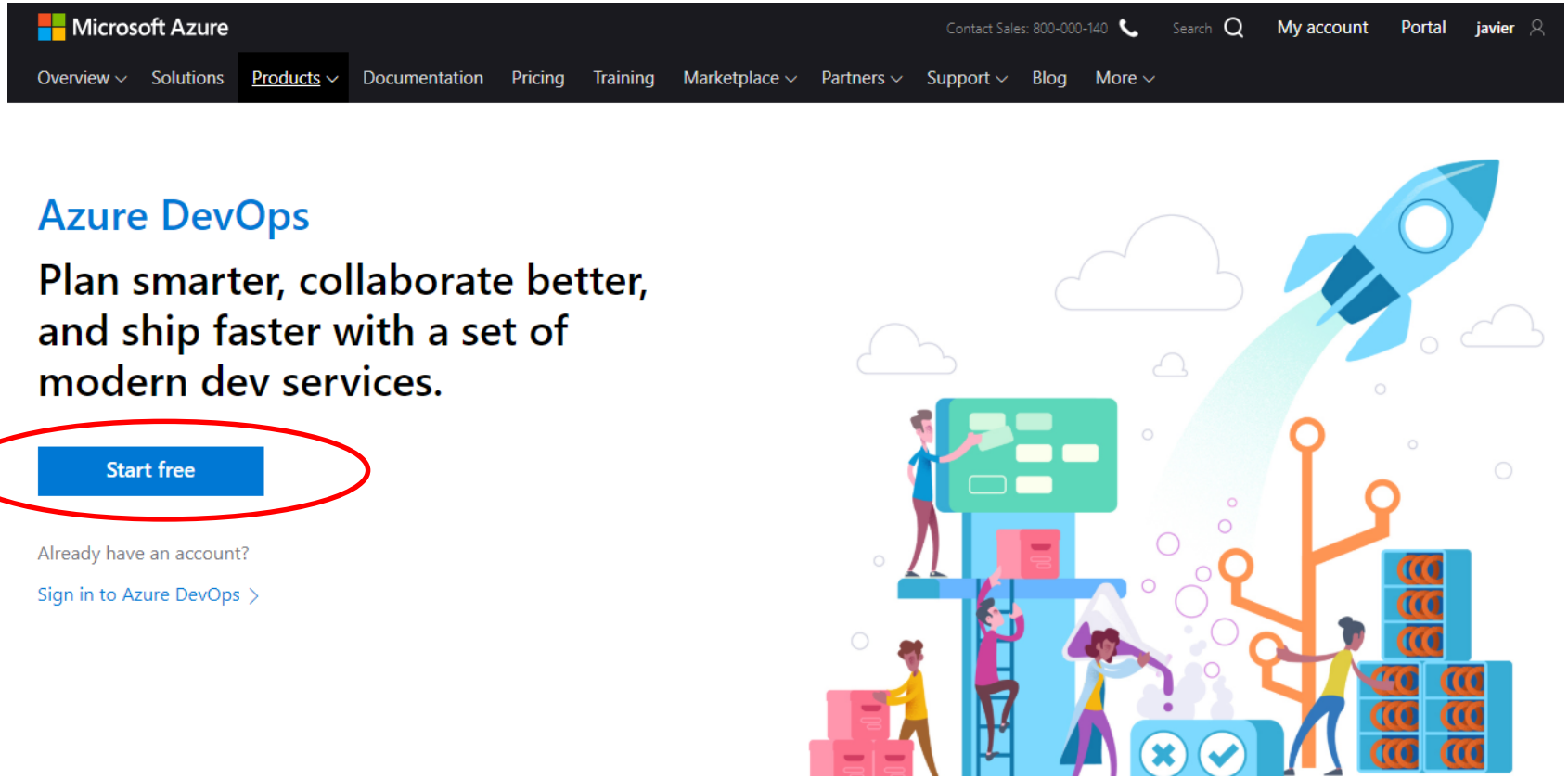
- ✓Creating an Azure DevOps Organization
- ✓Creating a new project
- ✓Adding members to the team
- ✓Work management

✓ Creating a DevOps account

Starting from the Visual Studio Web:

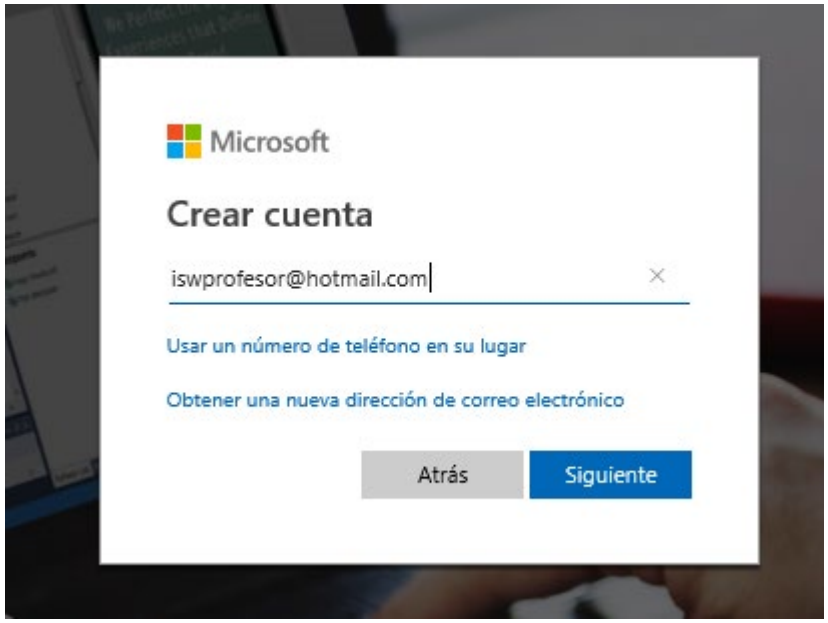
https://azure.microsoft.com/en-us/services/devops/

https://azure.microsoft.com/es-es/services/devops/

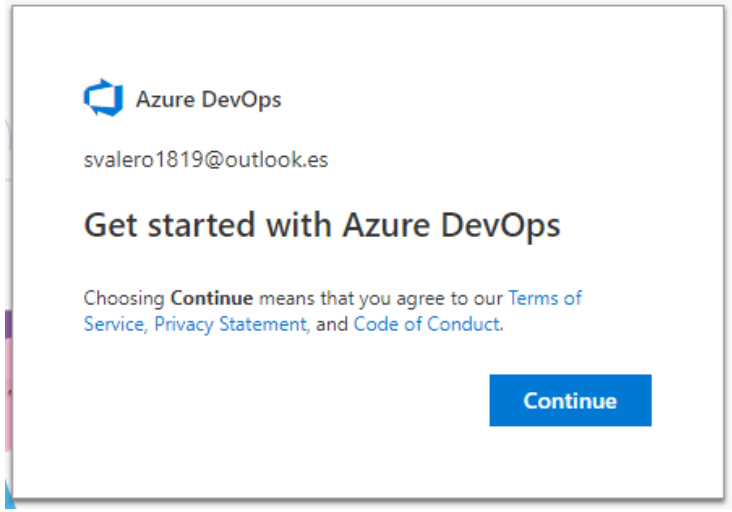


✓ Creating a DevOps Organization

Sign up with a personal Microsoft Account (you may use upv.edu from UPV)



A default organization is created with your user name



An organization is a team developing software projects

Modifying a DevOps Organization Name

Select an organization name.
Eg:
2019-upv-isw-3E1-team01

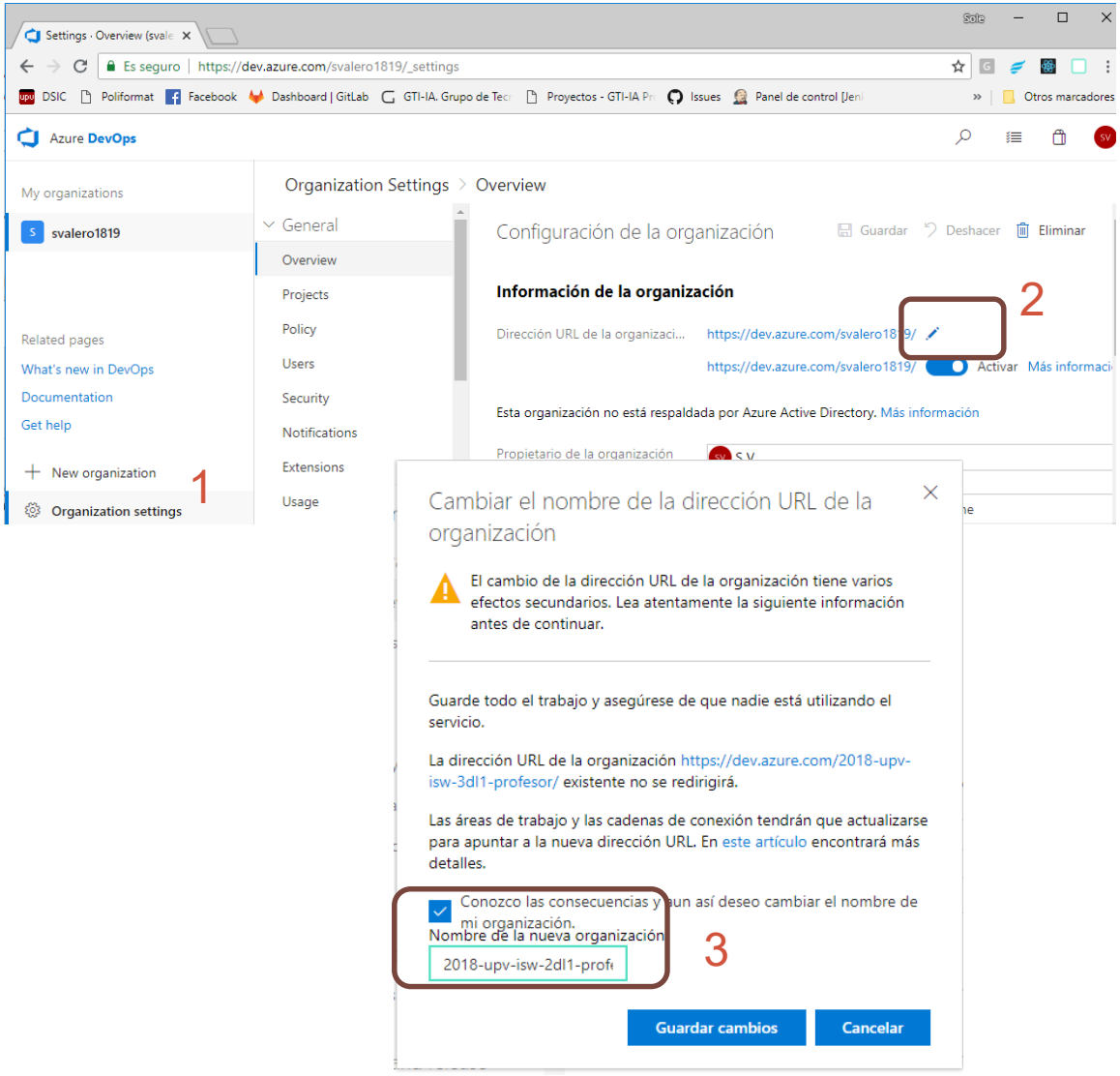
Organization settings menu.

A new server on the cloud is available:

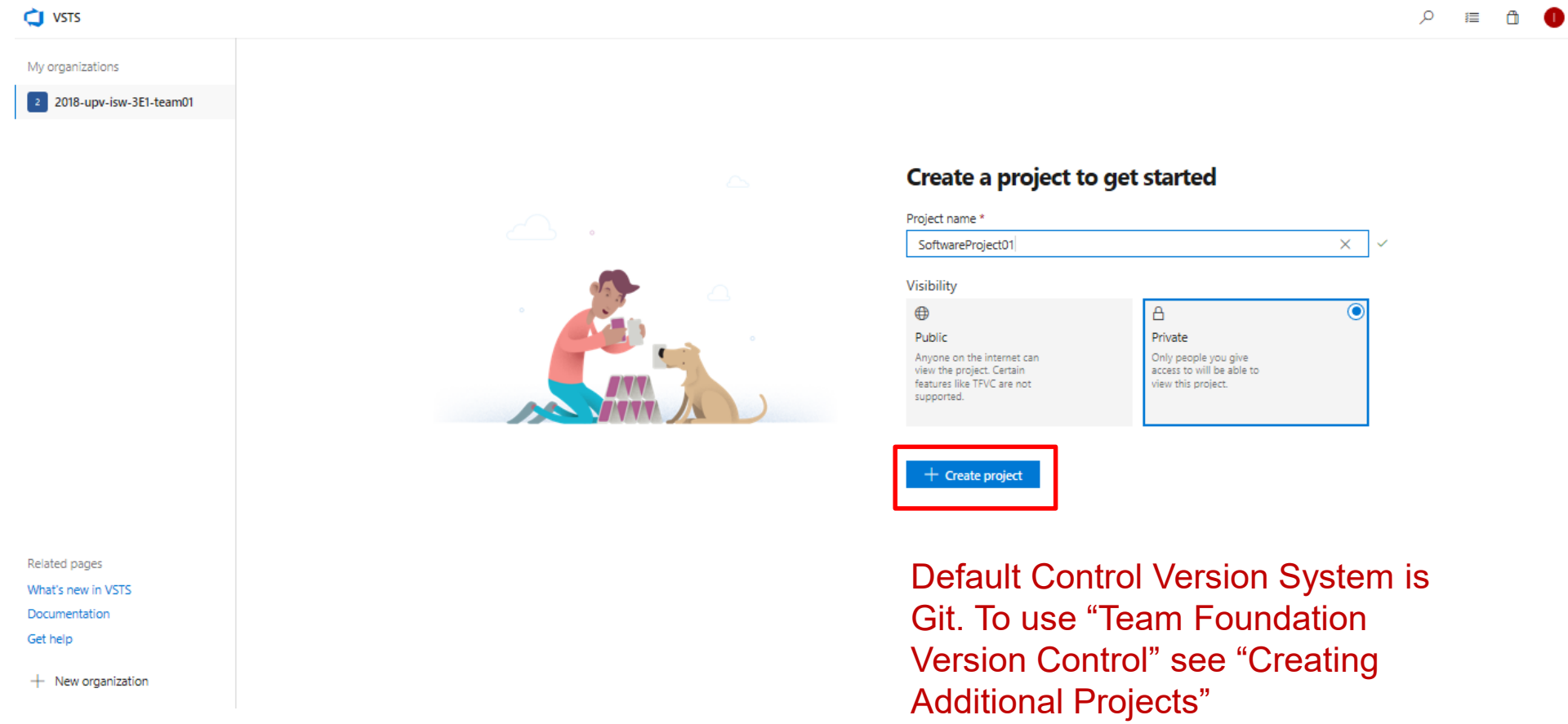
https://2019-upv-isw-3E1-team01.visualstudio.com

or at

https://dev.azure.com/2019-upv-isw-3E1-team01/

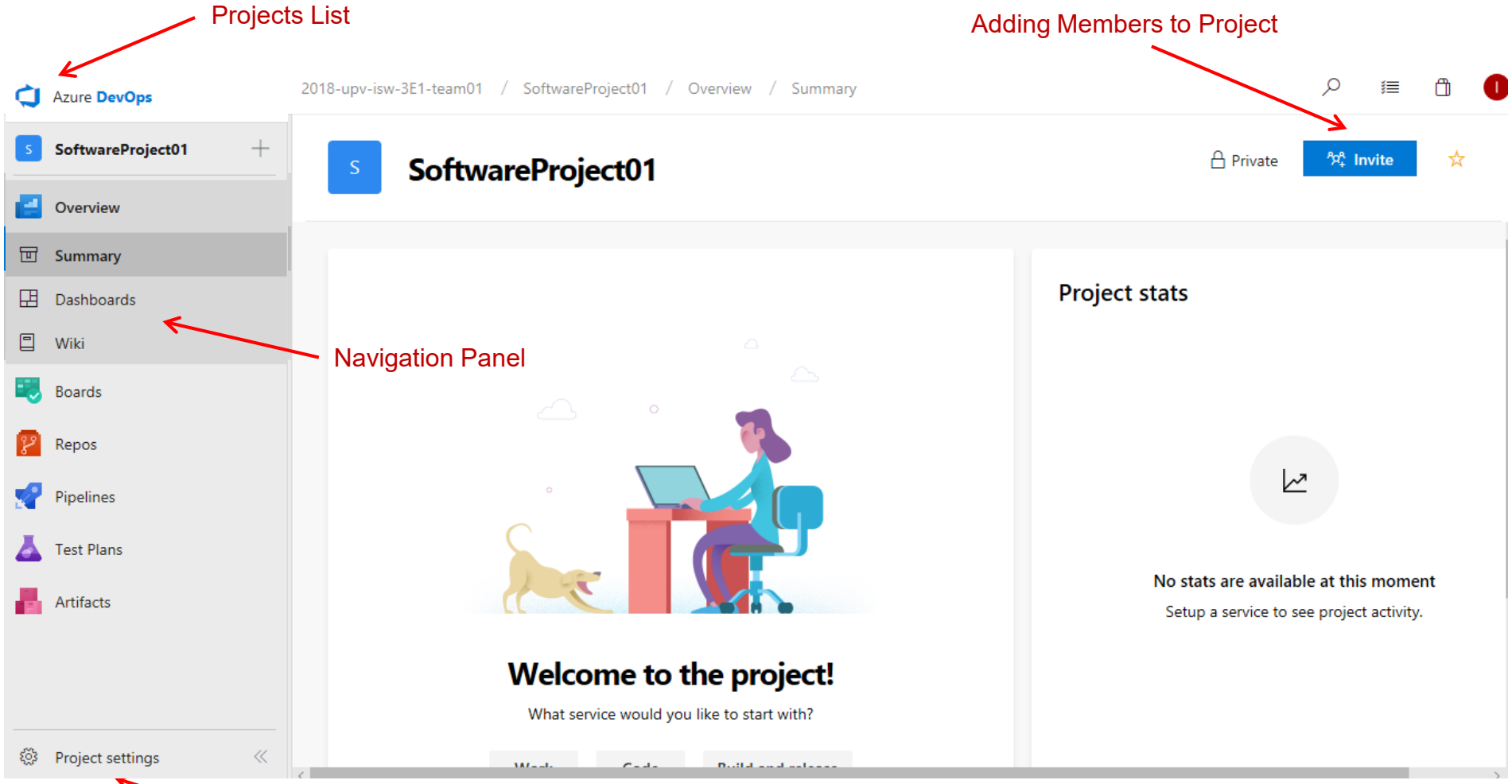


✓ Creating first project

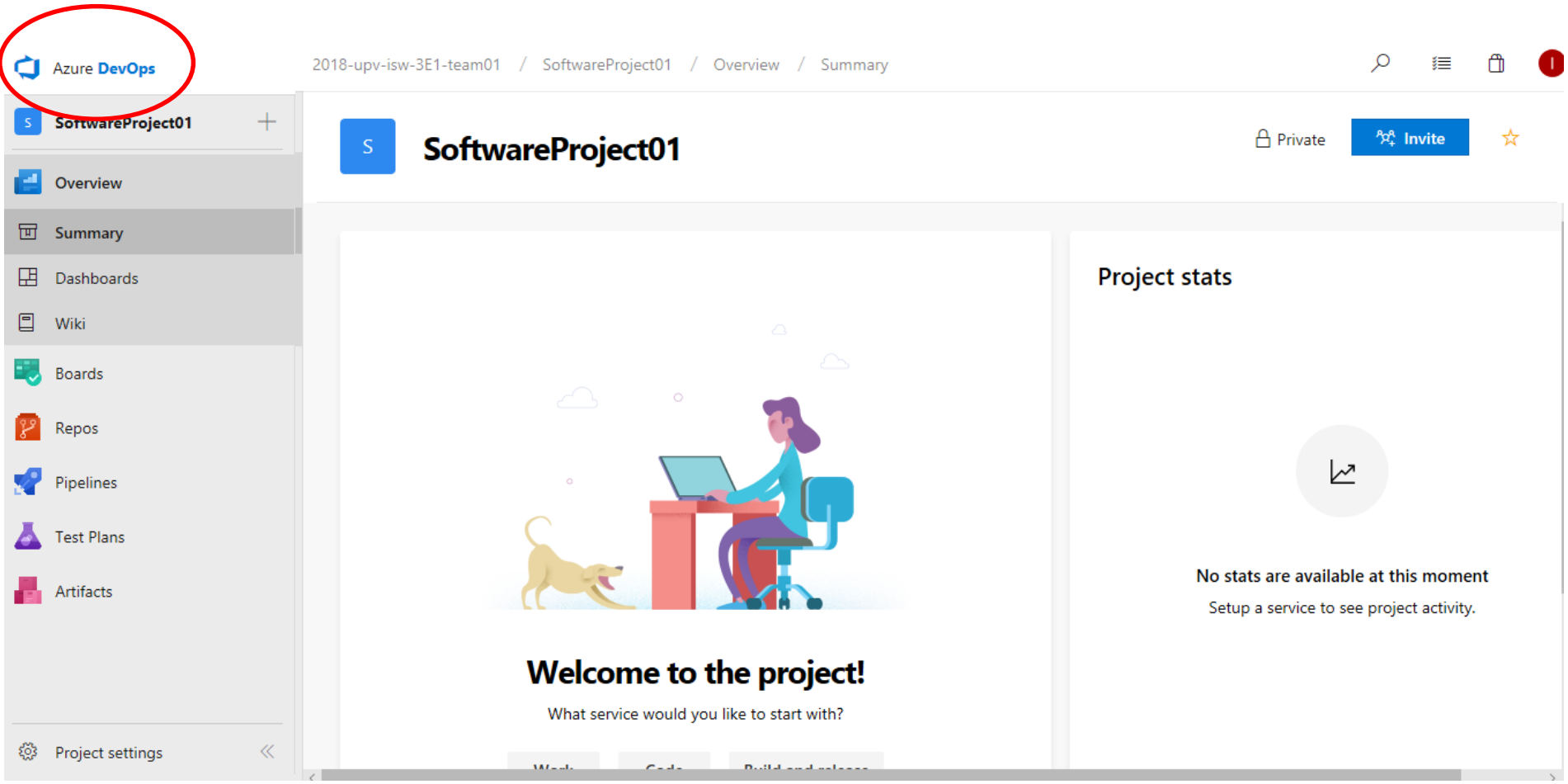


Default Control Version System is Git. To use “Team Foundation Version Control” see “Creating Additional Projects”

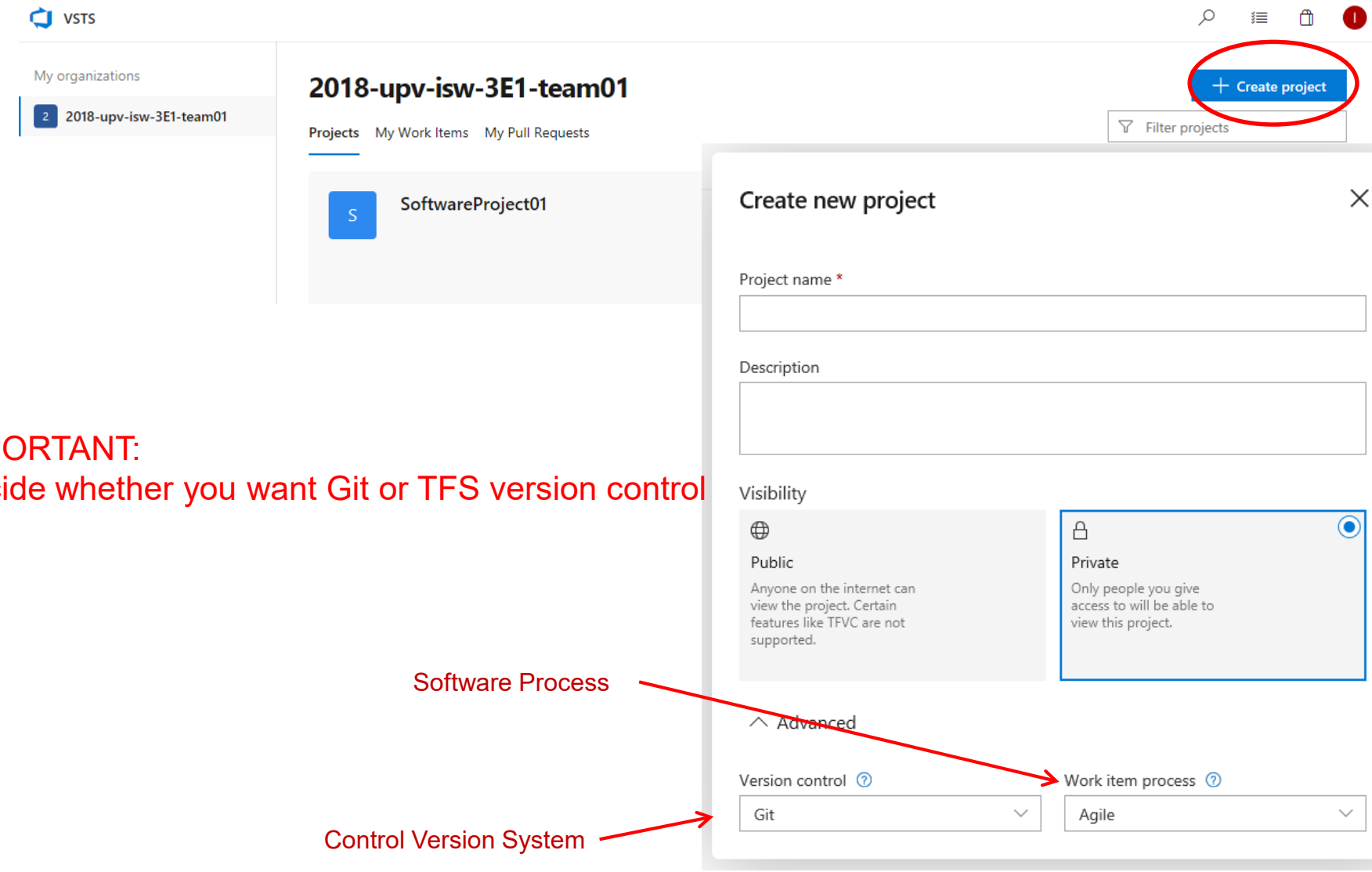
Project Main View



Creating Additional Projects



Creating Additional Projects

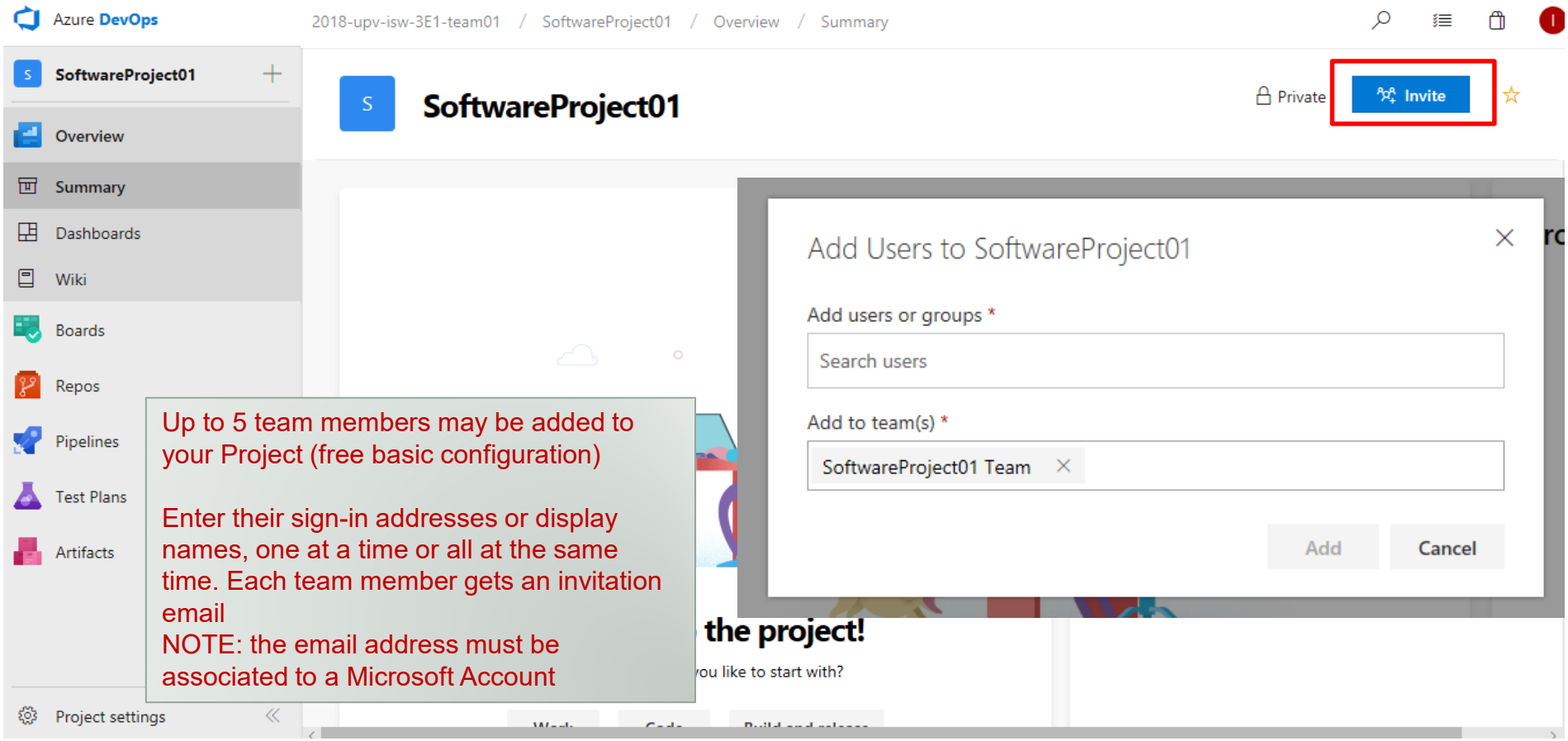


IMPORTANT:
Decide whether you want Git or TFS version control

Software Process

Control Version System

✓ Adding members to the team

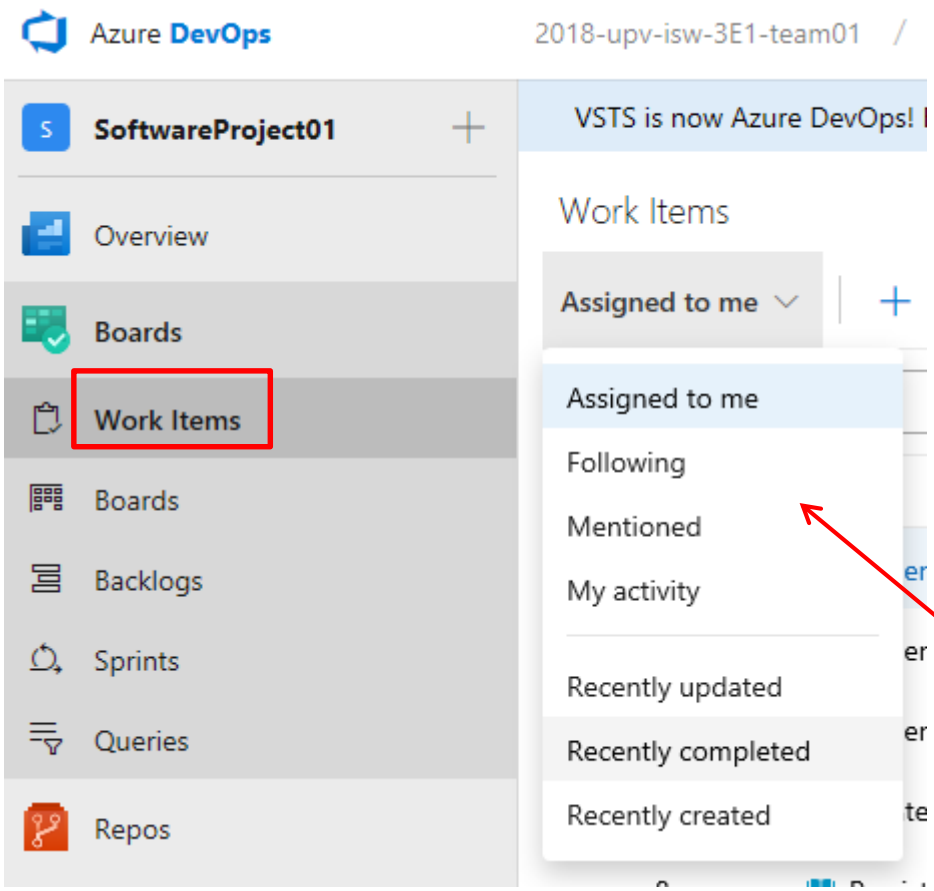


Up to 5 team members may be added to your Project (free basic configuration)

Enter their sign-in addresses or display names, one at a time or all at the same time. Each team member gets an invitation email

NOTE: the email address must be associated to a Microsoft Account

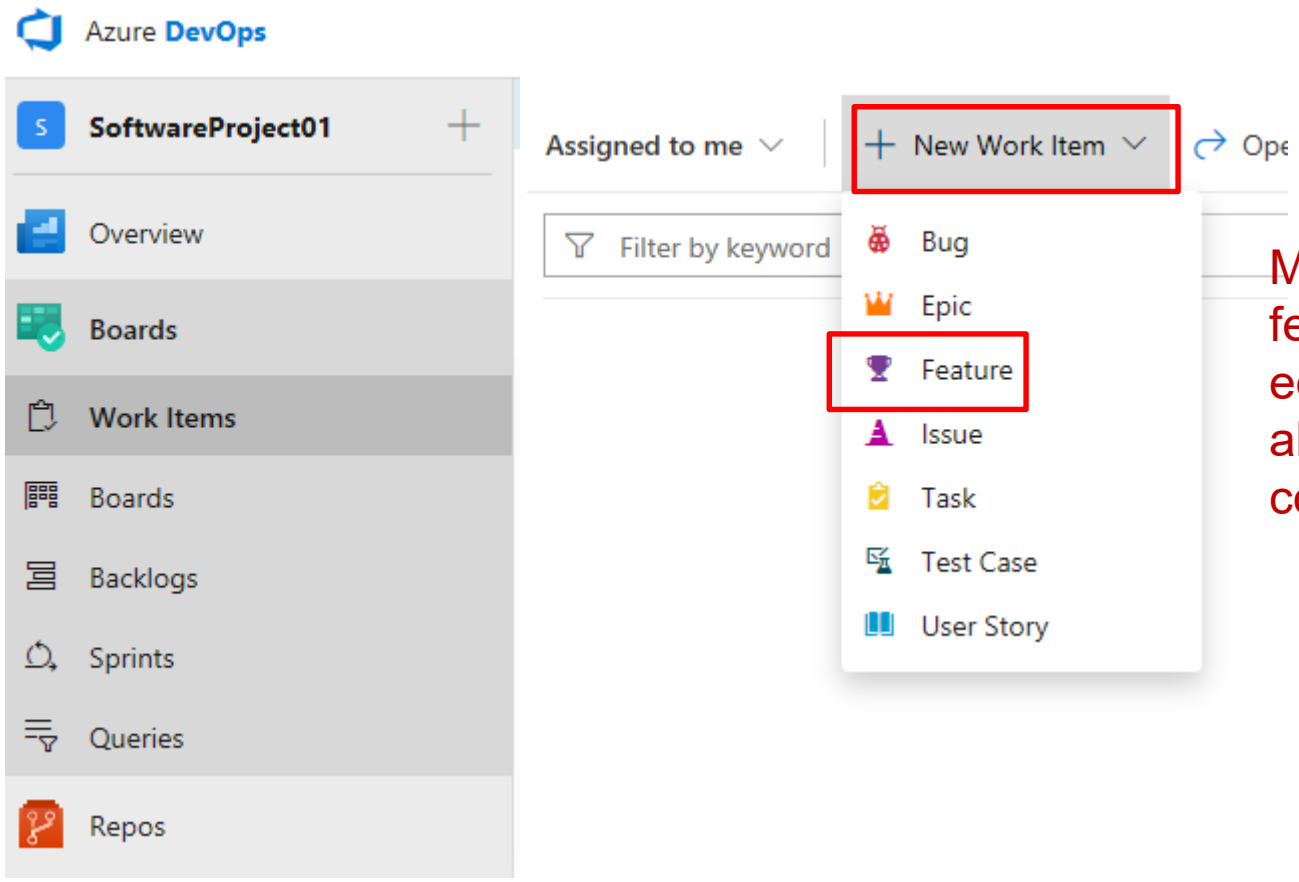
✓ Work Management (Work Items)



List of work items filtered by different criteria

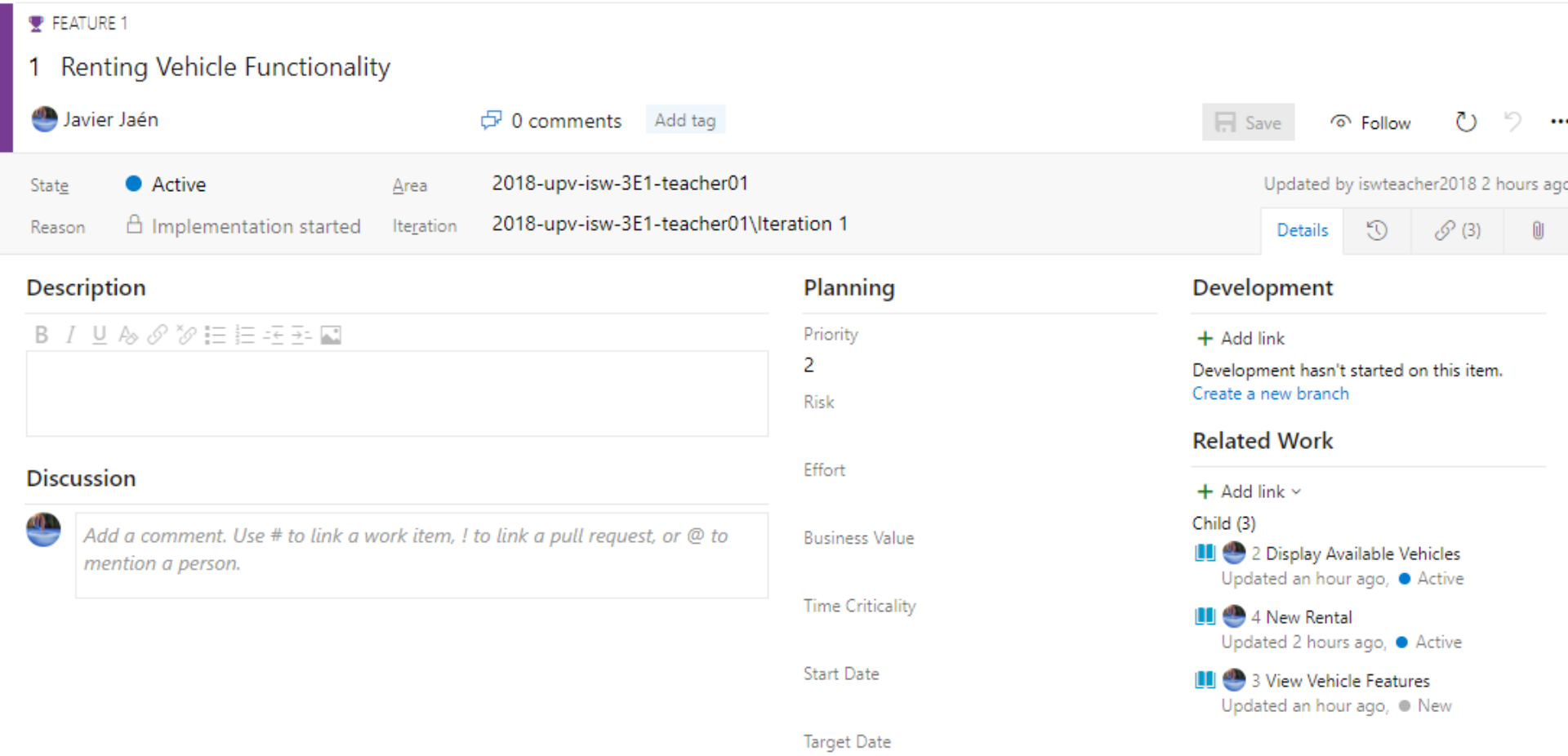
Creating Work Items

Being an Agile methodology we have *sprints*, *features, user stories, tasks* (inside user stories), etc.

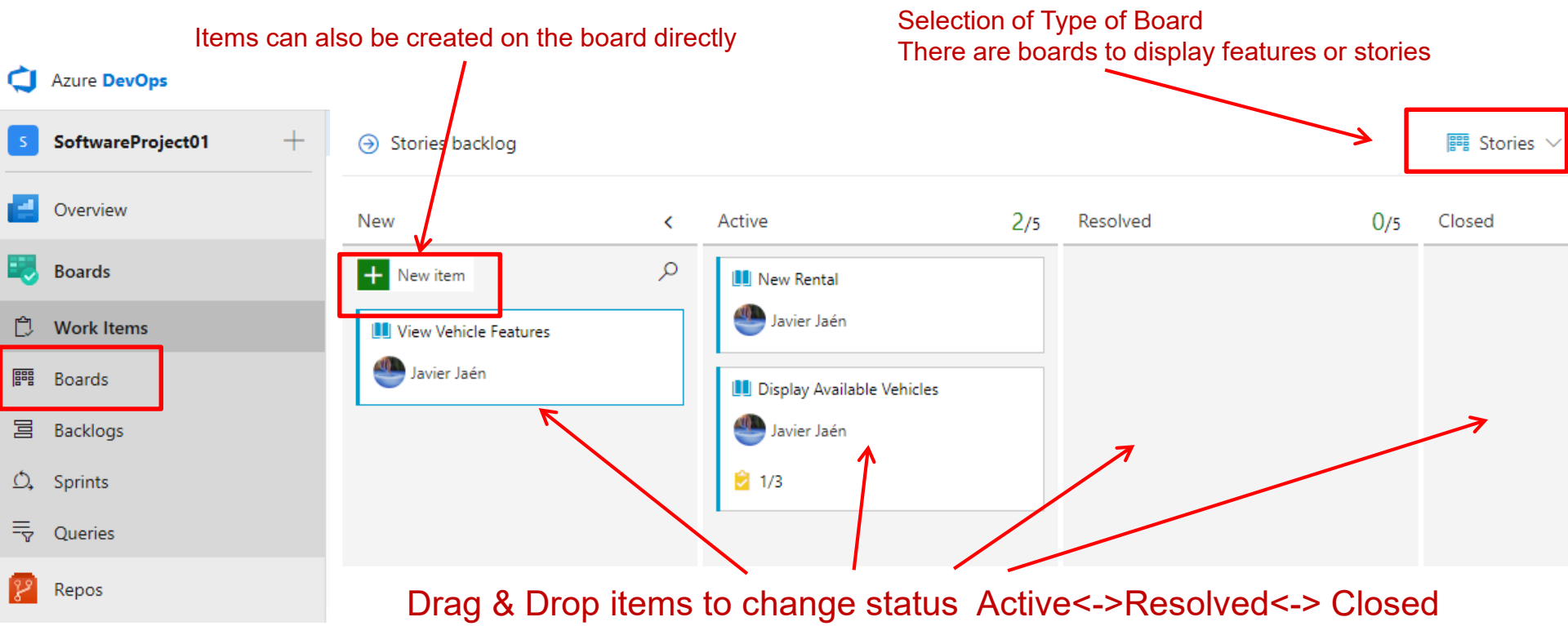


Many developers consider features and user stories equivalent but a feature can also be considered a collection of user stories

Creating Work Items



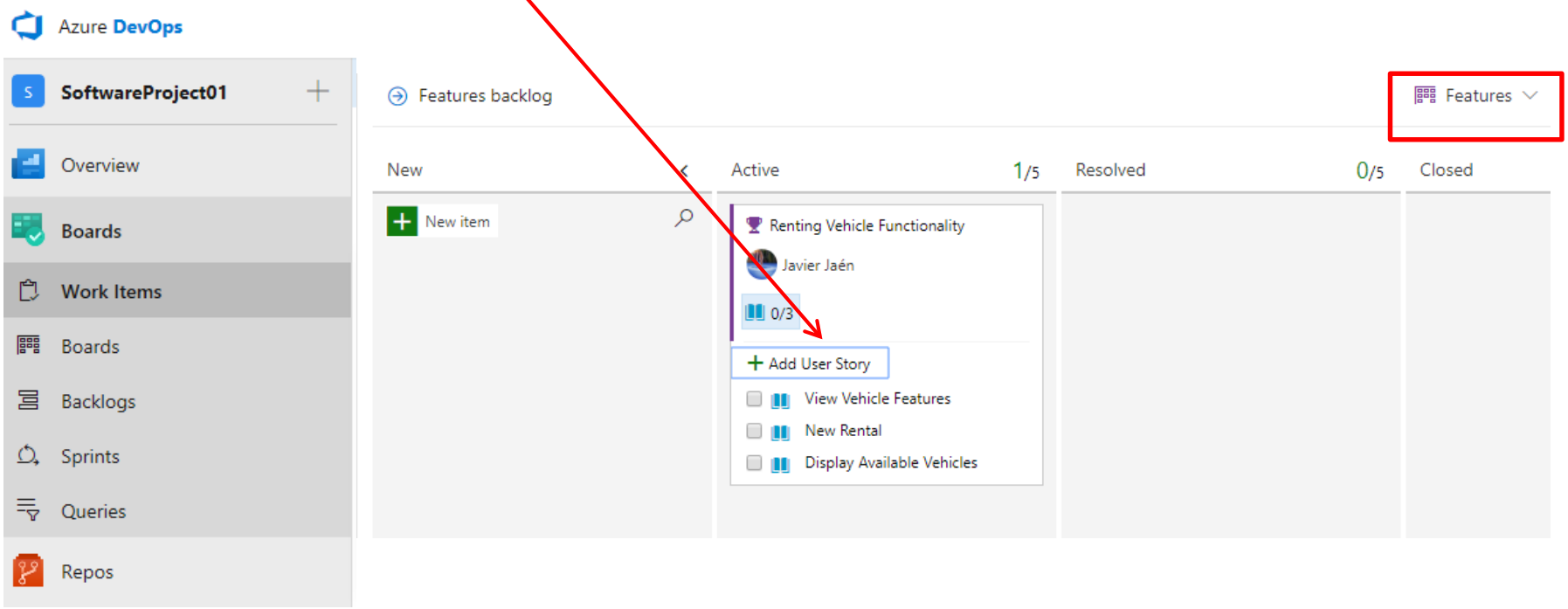
✓ Work Management (Boards)



Your board consists of a list of work items. You use work items to share information, assign work to team members, track dependencies, organize work, etc.

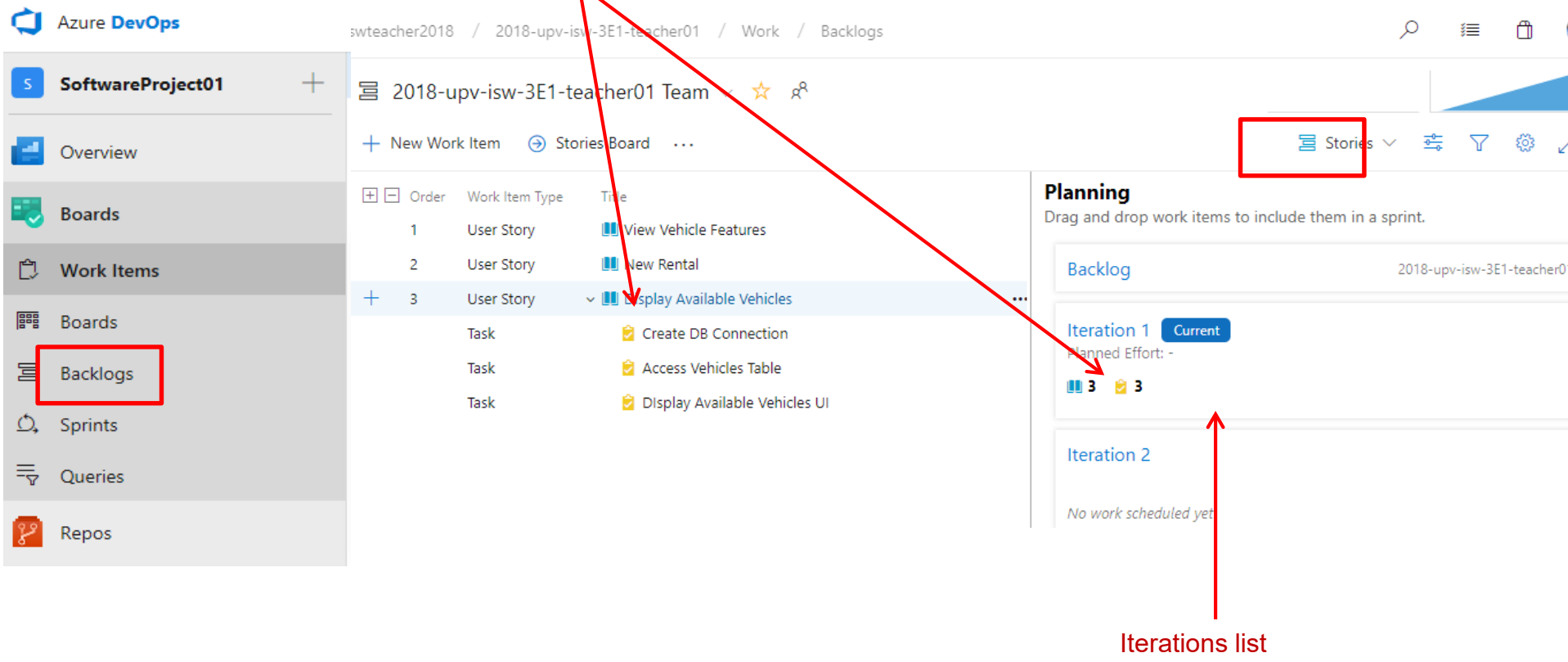
Work Management (Boards)

User Stories can be added to a Feature directly on the board



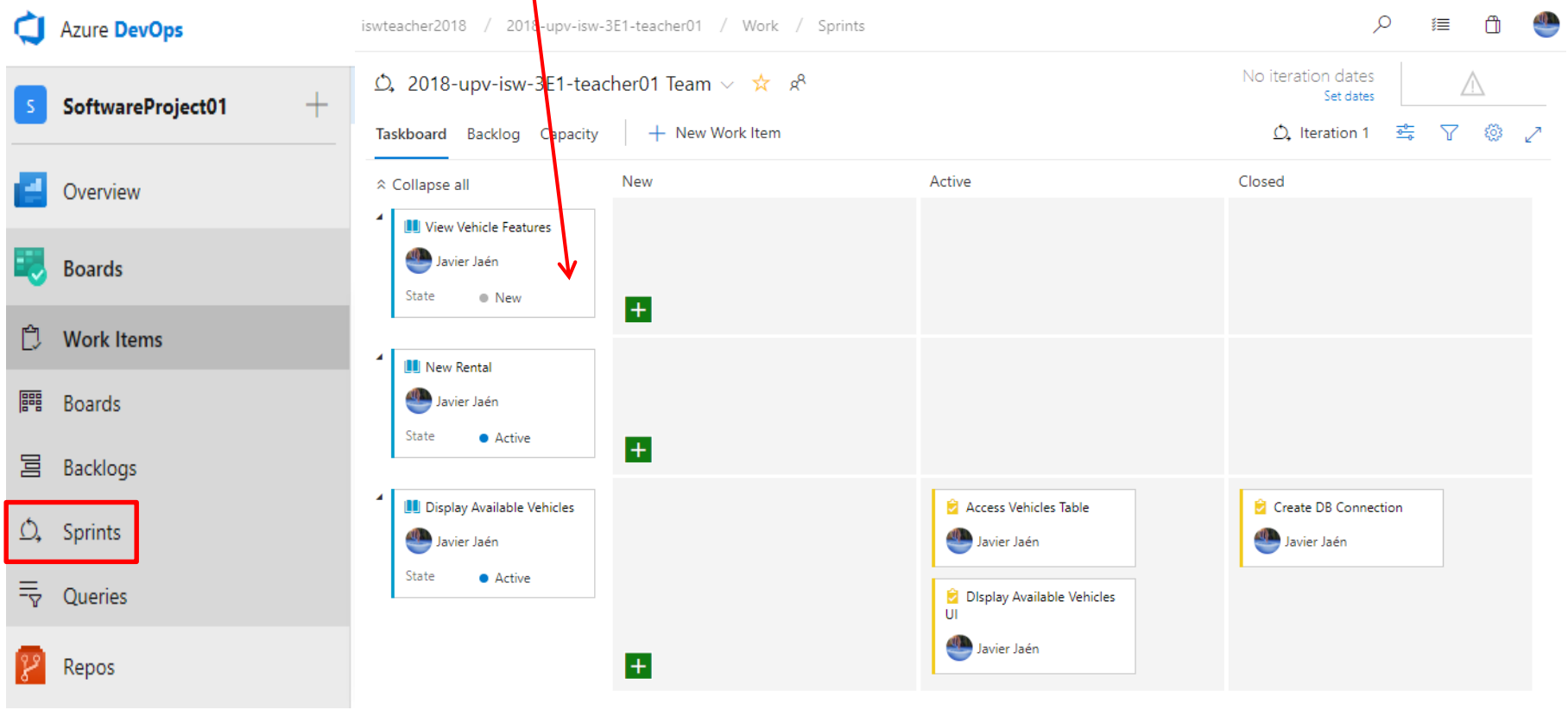
Work Management (Backlogs)

Backlogs can be used to assign work items to Iterations using Drag and Drop



Work Management (Sprints)

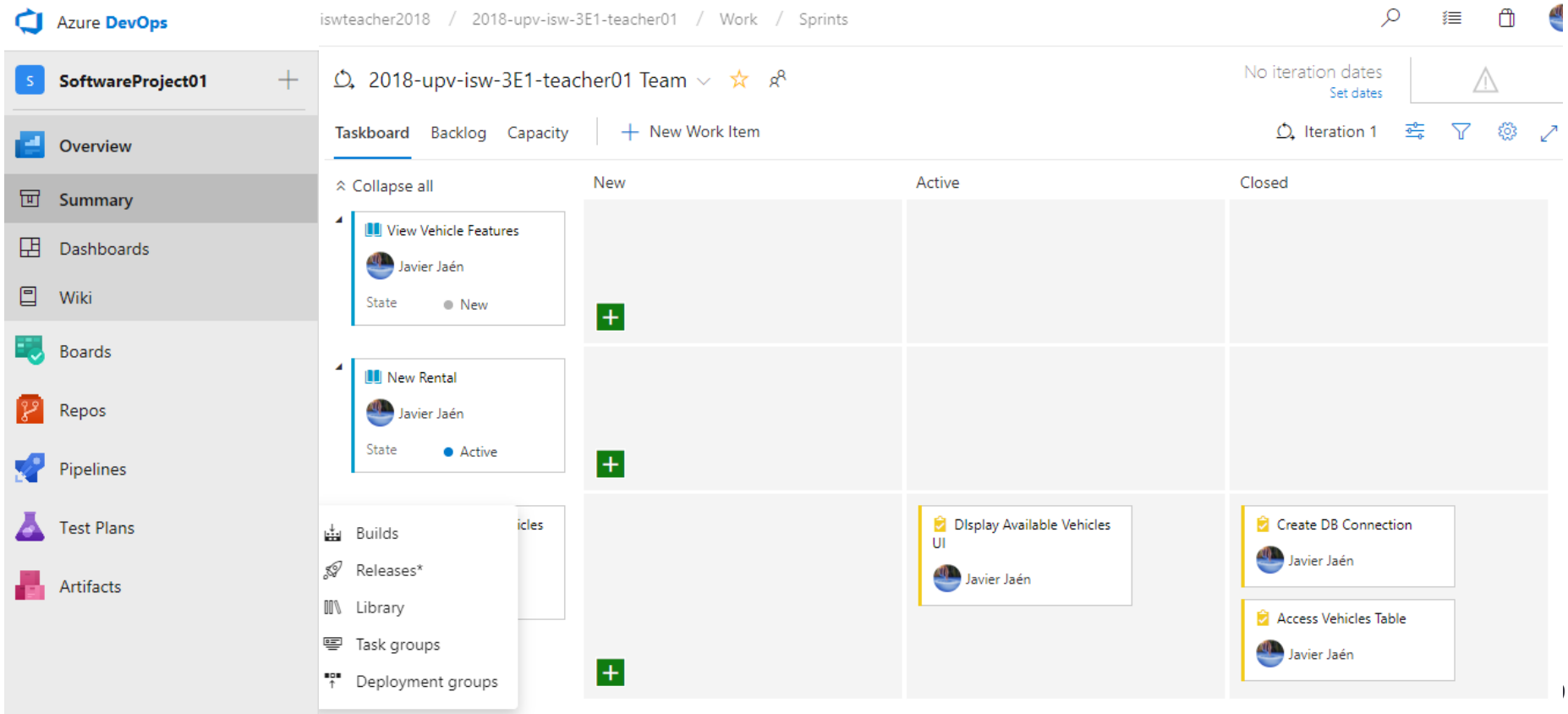
Tasks can be added to User stories directly



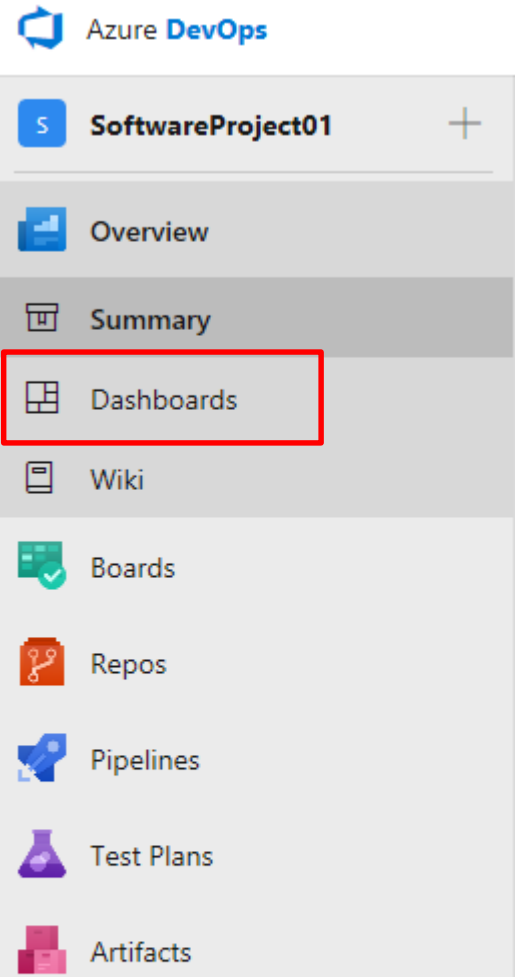
Sprints show the progress of tasks within a given sprint

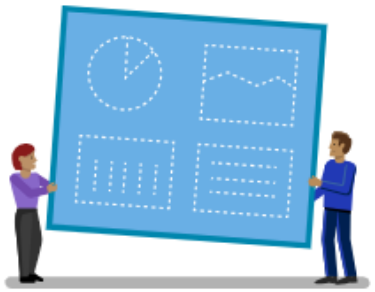
✓ Work management. Workflow progression

As work progresses, team members can update the state and reassign it as needed until they are completed (closed)



✓ Dashboards





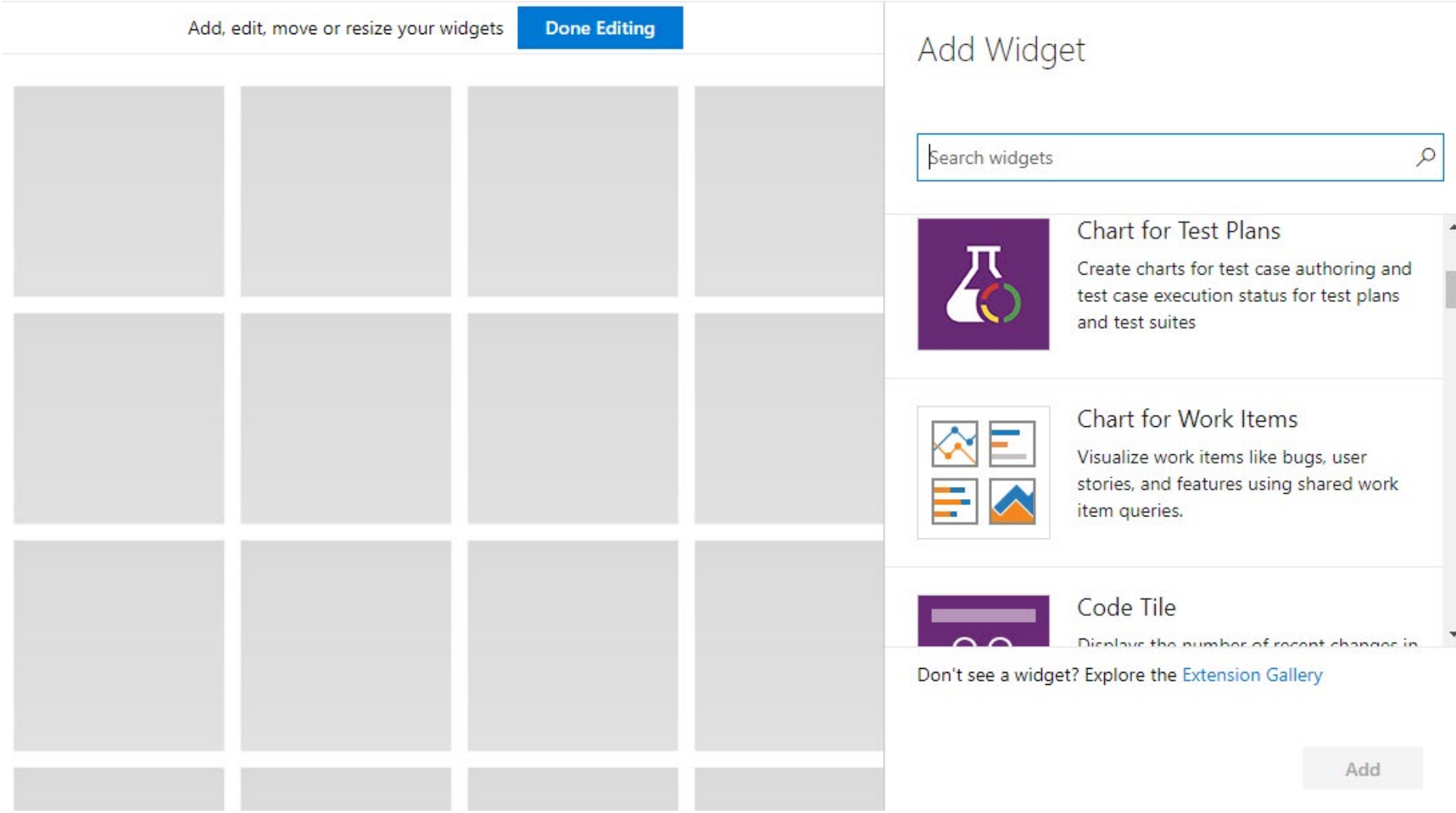
This dashboard doesn't have widgets just yet!

Add one or more widgets to gain visibility into your team's progress.

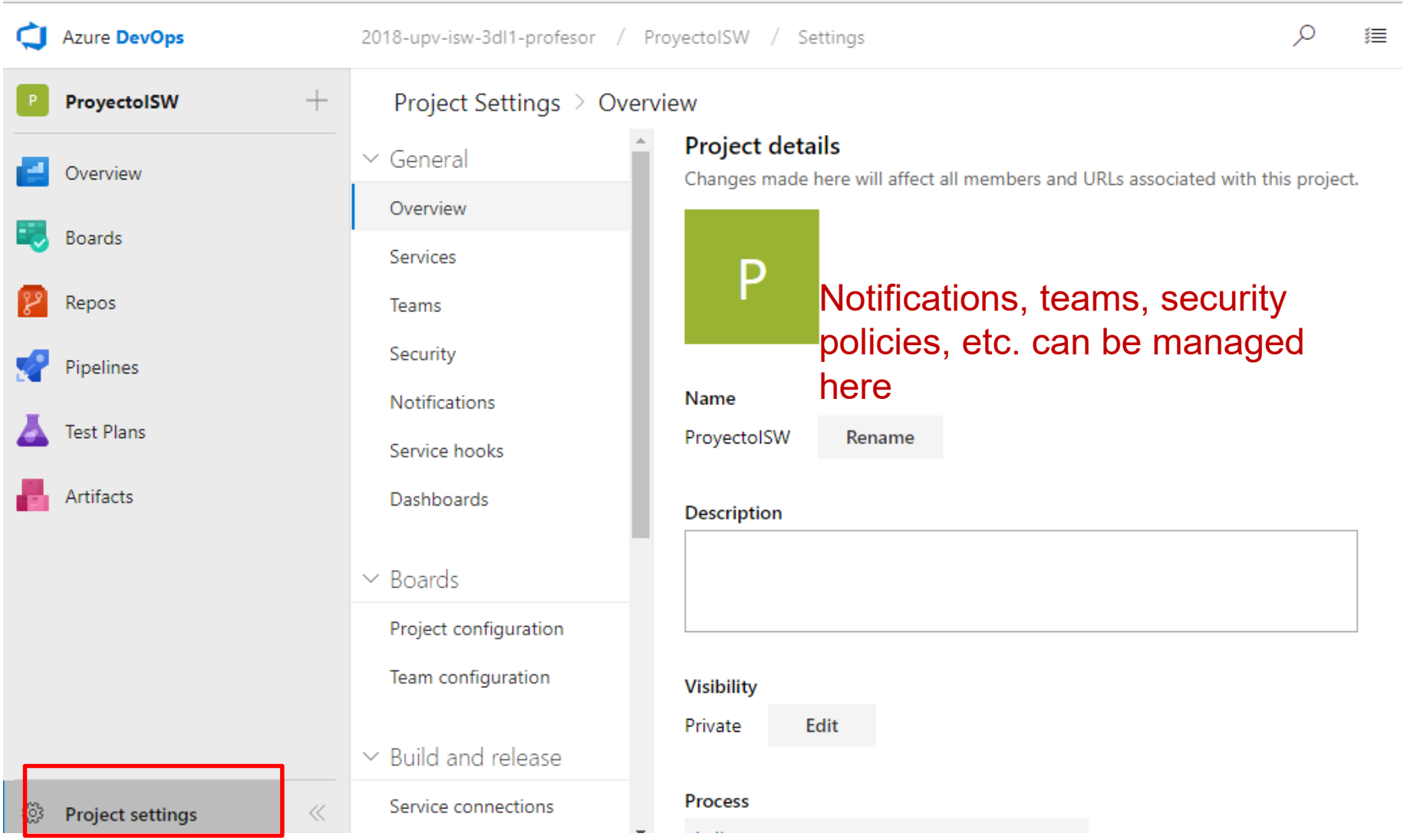
Add a widget

You can configure your own personalized dashboard by adding widgets with the reporting information you are interested in

✓ Dashboards

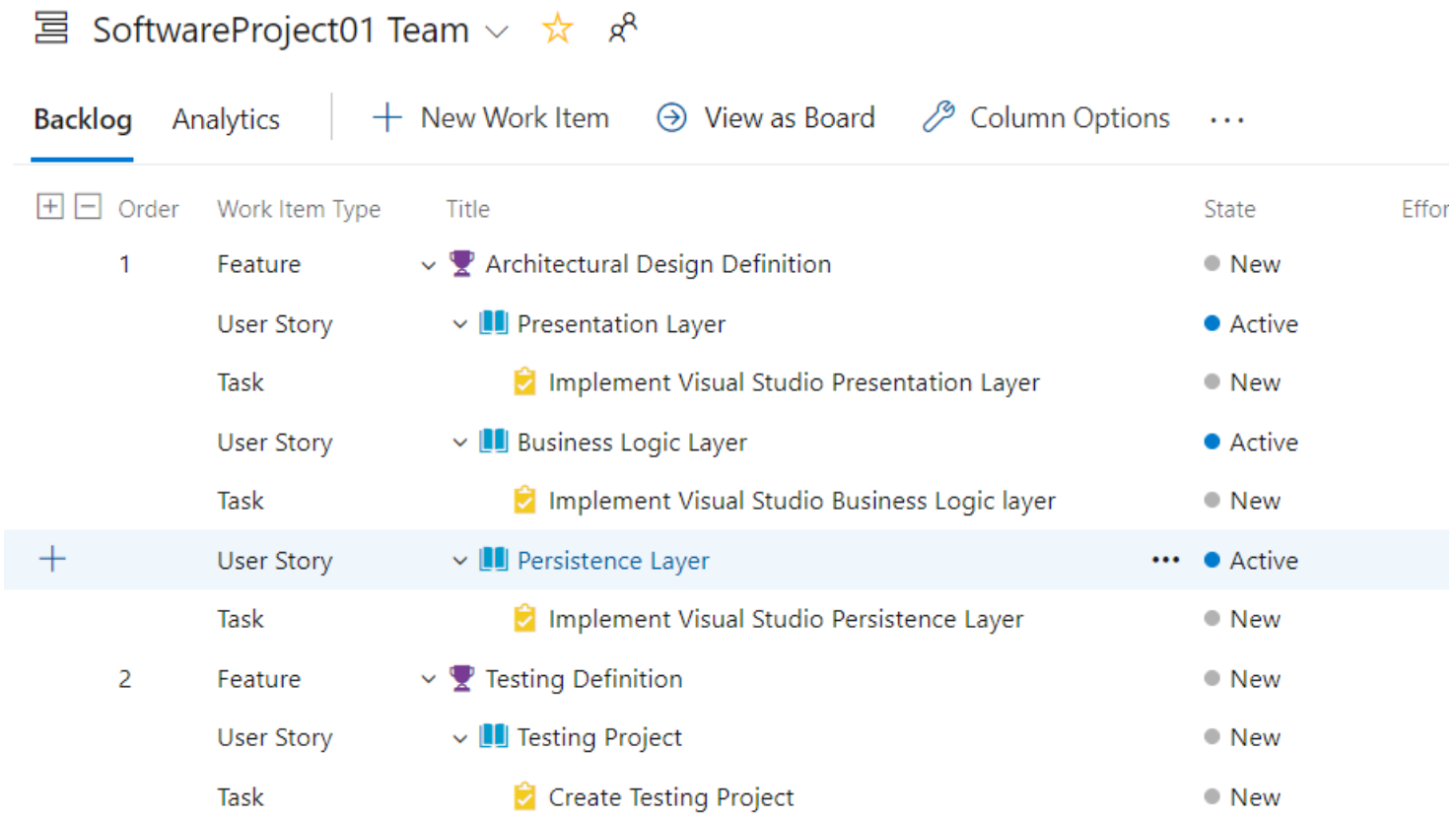

Add, edit, move or resize your widgets
Done Editing
Add Widget
Search widgets
Chart for Test Plans
Create charts for test case authoring and test case execution status for test plans and test suites
Chart for Work Items
Visualize work items like bugs, user stories, and features using shared work item queries.
Code Tile
Don't see a widget? Explore the Extension Gallery
Add

Project Settings



Task

- Create an Agile Azure DevOps project and define example sprints, tasks, etc.



Optional Tasks

- Read the DevOps documentation
  - https://docs.microsoft.com/en-us/azure/devops/index?view=vsts
  - https://docs.microsoft.com/en-us/azure/devops/user-guide/index?view=vsts