

DevOps Fundamentals

Lab 01: Plan - Agile at scale

Lab Manual

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Lab 1: Agile at scale using AZURE DEVOPS SERVICES

Introduction

In this lab, you will learn how to implement Agile at scale to promote “Aligned Autonomy”.

Objectives

After completing this lab, you will be able to:

- Understand the value of Agile at scale.
- Learn how to setup Azure DevOps Services Agile planning at scale.
- Realize the value of Agile planning in a DevOps organization.

Prerequisites

None

Estimated Time to Complete This Lab

120 minutes

For More Information

Agile at scale using Azure DevOps Services: <https://docs.microsoft.com/en-us/azure/devops/boards/plans/scaled-agile-framework>

Exercise 1: Create a Team Project

Introduction

In this exercise, you will learn how to setup AZURE DEVOPS SERVICES team projects to host all your teams' collaboration and intellectual property. The steps in this exercise are usually done once during the setup of a project and are only revisited to update the teams' structures or the cadence. This may not be what you do daily, but it is important to understand what's possible for you and your team.

Objectives

After completing this lab, you will be able to:

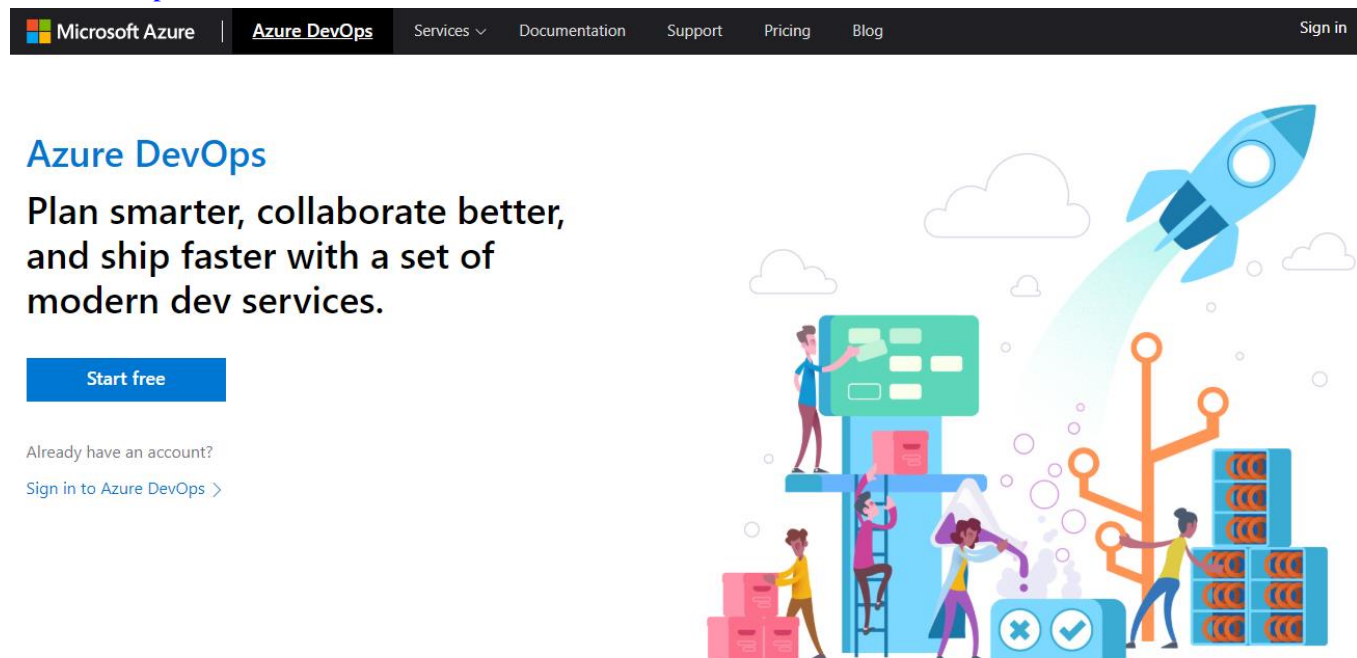
- Create team projects and set them up for collaboration.

Prerequisites

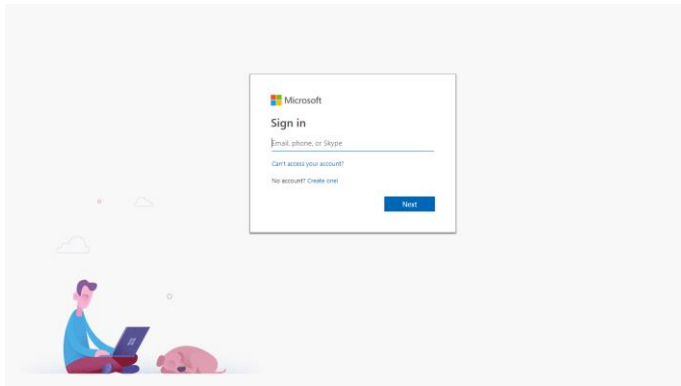
None

Tasks

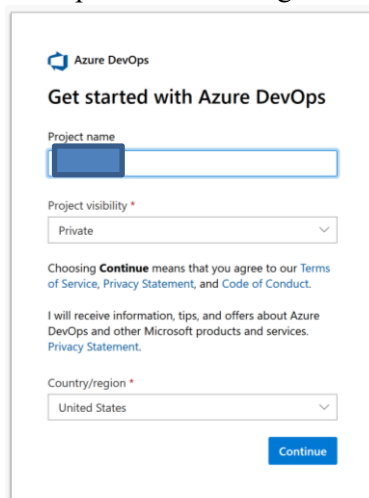
1. Go to <http://dev.azure.com>



2. Click on “[Start free](#)” to create a new “Azure DevOps Services” account.
3. Enter your “[Microsoft Account](#)” email. (If you don’t already have a Microsoft account, you can create one but clicking on the “No Account, Create One” link)

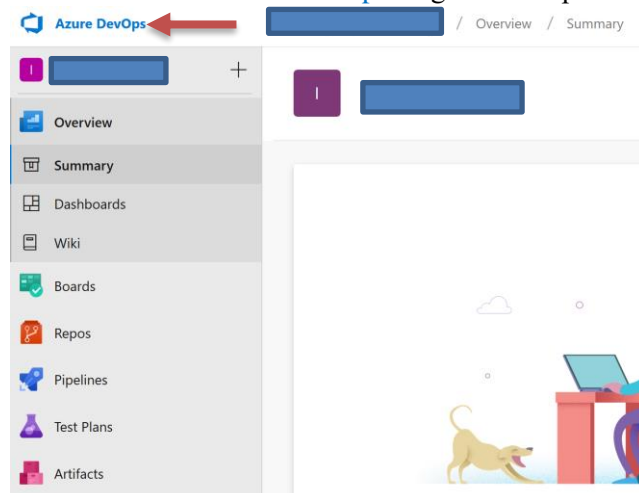


4. If this is the first time you use Azure DevOps Services, you will receive the following screen. Enter any project name you would like and click on “[Continue](#)”. If you have previously used “Azure DevOps Services” using the same Microsoft account, you can skip to step 6:

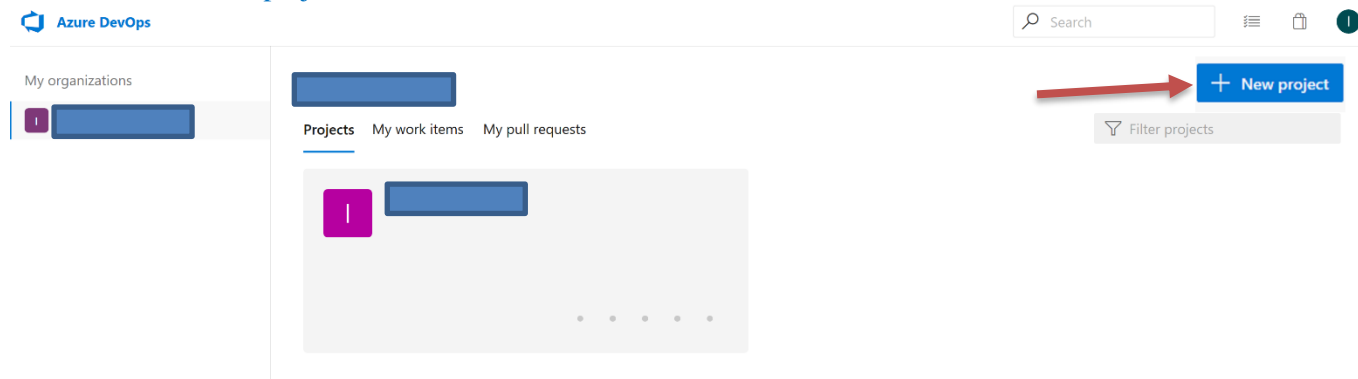
A "Get started with Azure DevOps" screen. At the top is the Azure DevOps logo and the heading "Get started with Azure DevOps". Below the heading is a "Project name" text input field. Underneath is a "Project visibility" dropdown menu set to "Private". Below this is a paragraph: "Choosing **Continue** means that you agree to our [Terms of Service](#), [Privacy Statement](#), and [Code of Conduct](#)." followed by "I will receive information, tips, and offers about Azure DevOps and other Microsoft products and services." and a "Privacy Statement" link. Below that is a "Country/region" dropdown menu set to "United States". A blue "Continue" button is at the bottom right.

The default project that was created for you uses the “[Basic](#)” process template. In the next steps, we will create a new project using the “[Agile](#)” process template instead.

5. Click on the “[Azure DevOps](#)” logo at the top of the screen:



6. Click on “+ New project”:



7. Enter “hol” the project name and then click the “Advanced” panel so that you can select the process template:

Create a project to get started

Project name *

hol

Description

Visibility

Public
Anyone on the internet can view the project. Certain features like TFVC are not supported.

Private
Only people you give access to will be able to view this project.

Advanced

+ Create project

8. Choose “Agile” as the process template, then click “Create Project”

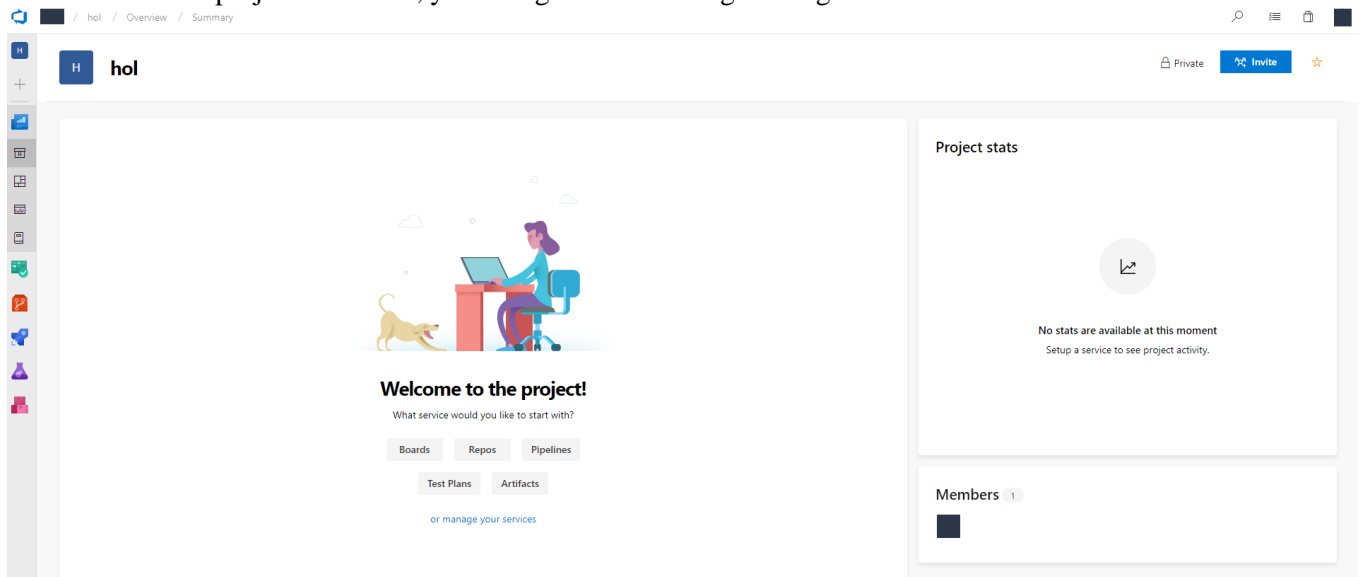
Advanced

Version control ?
Git

Work item process ?
Agile

+ Create project

9. Once the project is created, you will get the following landing screen:



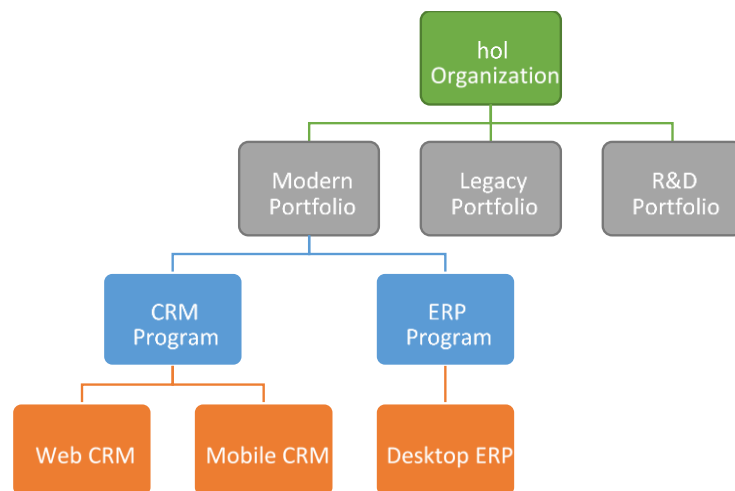
Exercise 2: Set up your teams' structure

Introduction

In this exercise, you will learn how to setup areas, cadences and teams to **support scaling Agile within your organization**. Areas and teams, allows you to distribute work across multiple workstreams.

Iterations allow you to set up multiple cadence levels to be used by different teams or group of teams.

The following structure represents the organization structure we will implement during this exercise:



In the example we will implement:

- The portfolio teams plan using a **half yearly** cadence and **Epics** Boards.
- The program teams plan using **3 Sprints** increments and **Features** Boards.
- The feature teams plan using **3 weeks** sprints and **Story** Boards

Objectives

After completing this lab, you will be able to:

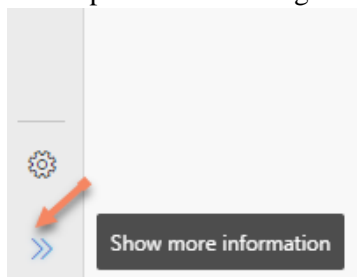
- Setup the foundation of Agile at scale in DevOps Azure Services.

Prerequisites

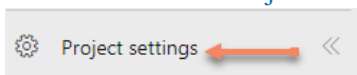
None

Tasks

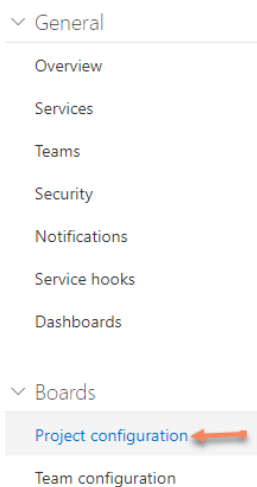
1. Expand the left navigation menu:



2. Click on the “Project Settings” button:



3. Click on “Project configuration”:

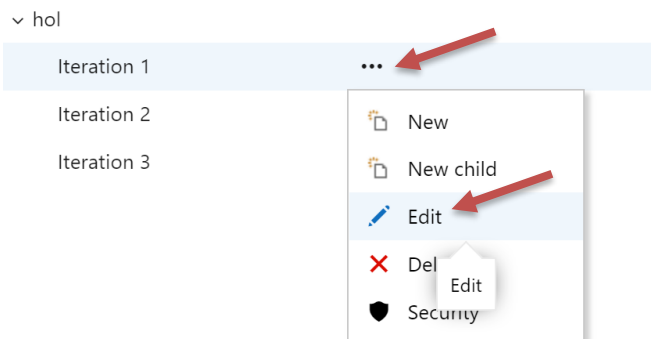


4. Rename the initial iterations as follows:

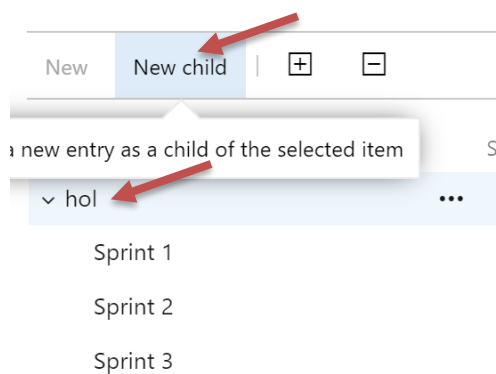
Iteration 1 → Sprint 1

Iteration 2 → Sprint 2

Iteration 3 → Sprint 3




5. Add 3 more sprints: Sprint 4, Sprint 5 and Sprint 6, by selecting the “hol” node and clicking “New child”:



6. Set the dates for the first 6 sprints. **Each sprint will be 3 weeks long.** Set the start date of “**Sprint 1**” to **Monday of the current week, and the end date 3 weeks later:**



Boards

 This project is currently using the Agile process. To customize your work item types, [go to the process customization page](#).

Iterations Areas

Create and manage the iterations for this project. These iterations will be used by teams for iteration planning (sprint planning)

To select iterations for the team, go to [the default team's settings](#).

New New child |  

Iterations	Start Date	End Date
------------	------------	----------

▼ hol

Sprint 1	...	Set dates
----------	-----	---------------------------

Sprint 2

Sprint 3

Sprint 4

Sprint 5

Sprint 6

Iterations	Start Date	End Date
------------	------------	----------

▼ hol

...

Sprint 1	6/3/2019	6/21/2019
----------	----------	-----------

Sprint 2	6/24/2019	7/12/2019
----------	-----------	-----------

Sprint 3	7/15/2019	8/2/2019
----------	-----------	----------

Sprint 4	8/5/2019	8/23/2019
----------	----------	-----------

Sprint 5	8/26/2019	9/13/2019
----------	-----------	-----------

Sprint 6	9/16/2019	10/4/2019
----------	-----------	-----------

7. Create two more iterations without setting their dates, “**PI 1**” and “**PI 2**”. These are just sample names. In a real project you can use any naming convention you prefer. “**PI**” Refers to “**Program Increment**”. The goal is to show hierarchical cadences:

Iterations	Start Date	End Date
------------	------------	----------

hol

Sprint 1	9/10/2018	9/29/2018
----------	-----------	-----------

Sprint 2	10/1/2018	10/19/2018
----------	-----------	------------

Sprint 3	10/22/2018	11/9/2018
----------	------------	-----------

Sprint 4	11/12/2018	11/30/2018
----------	------------	------------

Sprint 5	12/3/2018	12/21/2018
----------	-----------	------------



Sprint 6	12/24/2018	1/11/2019
----------	------------	-----------

PI 1

PI 2	...	
------	-----	--

8. Move Sprint 1, Sprint 2 and Sprint 3 into PI 1. Move Sprint 4, Sprint 5 and Sprint 6 into PI 2. Then set the PI 1 and PI 2 dates from the included sprints:

▼ hol



▼ PI 1		6/4/2019	8/2/2019
Sprint 1		6/3/2019	6/21/2019
Sprint 2		6/24/2019	7/12/2019
Sprint 3		7/15/2019	8/2/2019
▼ PI 2		8/5/2019	10/4/2019
Sprint 4		8/5/2019	8/23/2019
Sprint 5		8/26/2019	9/13/2019
Sprint 6		9/16/2019	10/4/2019

9. Add two more iterations without settings their dates:

FY 19 – H2 and FY 20 – H1 (feel free to adjust the names and dates to match the current year).

10. Move the PIs (Program Increments) into the half year cadences and then set the dates:

▼ HOL

▼ PI 1		26 Aug 2019	25 Oct 2019
Sprint 1		26 Aug 2019	13 Sep 2019
Sprint 2	...	16 Sep 2019	4 Oct 2019
Sprint 3		7 Oct 2019	25 Oct 2019
▼ PI 2		28 Oct 2019	27 Dec 2019
Sprint 4		28 Oct 2019	15 Nov 2019
Sprint 5		18 Nov 2019	6 Dec 2019
Sprint 6		9 Dec 2019	27 Dec 2019

11. Click on the “Areas” tab

amazingorg / hol / Settings / Project configuration

Project Settings

General

Overview

Teams

Security

Notifications

Service hooks

Dashboards

Boards

Project configuration

Team configuration

Boards

Iterations
Areas

Create and manage the iterations for this project. These iterations will be used [customizing areas and iterations](#)

To select iterations for the team, go to [the default team's settings](#).

New
 New child
 +
 -

Iterations	Start Date	End Date
<div> <div> <div>▼</div> <div>hol</div> </div> <div> <div>▼</div> <div>FY 19 - H2</div> </div> <div> <div>▼</div> <div>PI 1</div> </div> <div> <div>▼</div> <div>Sprint 1</div> </div> </div>	<div>...</div> <div>7/1/2019</div> <div>7/29/2019</div> <div>7/29/2019</div>	<div>12/31/2019</div> <div>9/27/2019</div> <div>8/16/2019</div>

12. Select the root area “hol” and use the new child button to create the following areas hierarchy:

New
 New child
 +
 -

Areas

▼

hol

...

Legacy Portfolio

▼

Modern Portfolio

▼

CRM Program

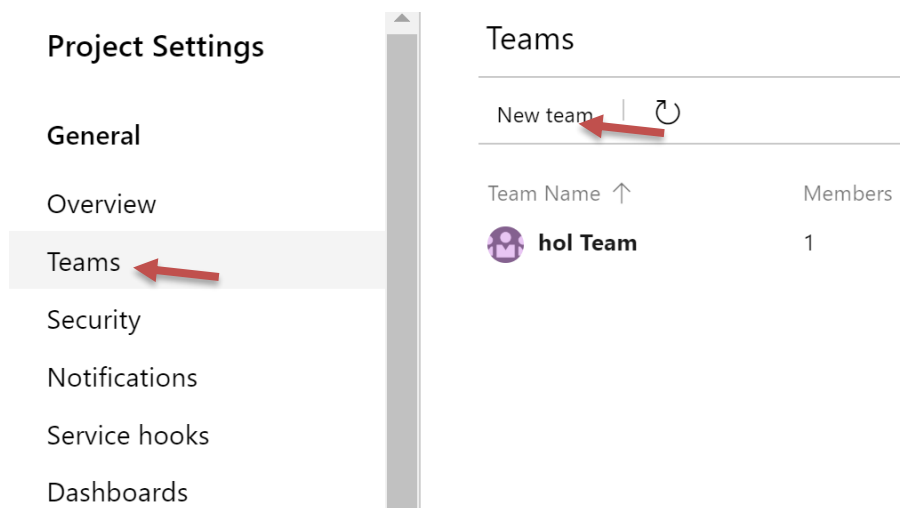
Mobile CRM

Web CRM

ERP Program

We will now create 3 teams matching the three levels of hierarchies we created in the areas section.

13. Click on the “Teams” section under the “General” settings section, then click on “New Team” button:



14. In new team dialogue use the following information to create the “Modern Portfolio”.

Make sure that you **uncheck** the “Create an area path with the name of the team” checkbox, then click on “Create team”.

Create new team






The screenshot shows the 'Create new team' dialog box. It has two tabs: 'PROFILE' and 'SETTINGS'. The 'PROFILE' tab is active. It contains a team icon, a 'Team name' field with the value 'Modern Portfolio' (indicated by a red arrow), and a 'Description' field. Below these is the 'Permissions' section, which includes a dropdown menu currently set to '[hol]\Contributors'. The 'Team area' section at the bottom has a checkbox labeled 'Create an area path with the name of the team.' which is unchecked (indicated by a red arrow). At the bottom right, there are two buttons: 'Create team' (highlighted with a red arrow) and 'Cancel'.

15. Repeat the same steps to create three additional teams:

- “CRM Program”
- “Web CRM”
- “Mobile CRM”

You should now see the following teams in your list:

Teams

New team ↻		
Team Name ↑	Members	Description
 CRM Program	1	
 hol Team	1	The default project team.
 Mobile CRM	1	
 Modern Portfolio	... 1	
 Web CRM	1	

16. Click on the “Team configuration” section:

amazingorg / hol / Settings / Team configuration / hol Team ▾

Project Settings

- General
- Overview
- Teams
- Security
- Notifications
- Service hooks
- Dashboards
- Boards
- Project configuration
- Team configuration**
- GitHub connections

Boards

General | Iterations | Areas | Templates

Backlogs

See only the backlogs your team manages

Backlog navigation levels

- ☐ Epics
- ☒ Features
- ☒ Stories

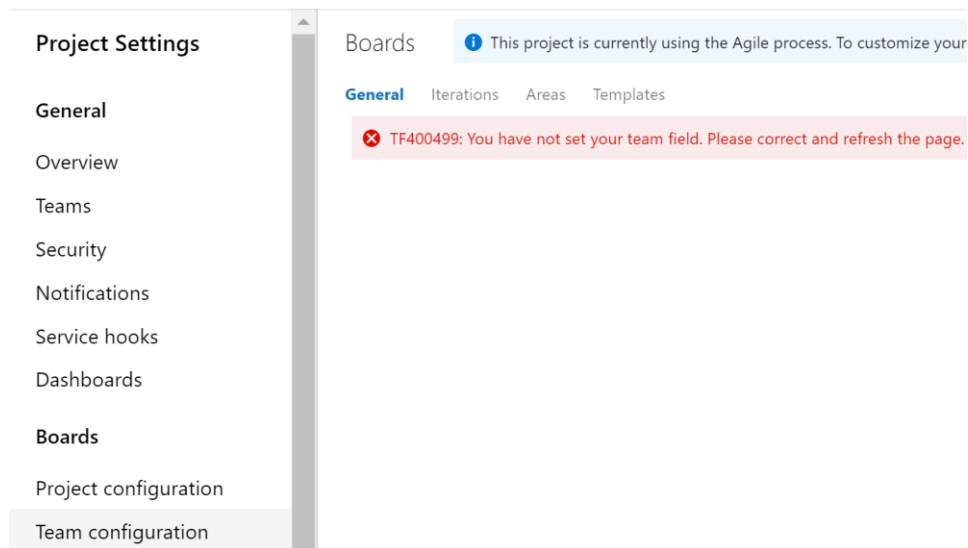
Working days

Capacity and burndown are based on

Select days

- ☒ Monday
- ☒ Tuesday

17. Use the team down down selector to switch to the “Modern Portfolio” team configuration



18. Click on the “Iterations” tab, then choose the half yearly cadence:

/ Settings / Team configuration / Modern Portfolio ▾ Search

Boards ⓘ This project is currently using the Agile process. To customize your work item types, [go to the process customization page](#).

General **Iterations** Areas Templates

ⓘ To manage iterations for the project, navigate to [Project settings](#)

Iterations

Teams plan and track work at regular time intervals, commonly referred to as an iteration or sprint. Here you can manage the [about customizing areas and iterations](#)

Default iteration ⓘ

@CurrentIteration Change

Backlog iteration ⓘ

hol Change

The iterations selected below will appear in the Sprints hub for your team. Each iteration will have a backlog and board to help you manage work.

Iteration	Start Date	End Date
hol\FY 19 - H2	7/1/2019	12/31/2019
hol\FY 20 - H1	1/2/2020	7/3/2020

19. Click on the “Areas” tab.
20. Select “hol\Modern Portfolio” as the default area.
21. Make sure you check the “Include sub areas” checkbox.

Select area(s)

Work items in the selected area path(s) will show up on your team's backlog

+ Area

hol\Modern Portfolio

☒ Include sub areas

Save and close

Cancel

22. Refresh your page from your browser, then go to “General” tab
23. Select “Epics” as the backlog navigation level

Backlogs

See only the backlogs your team manages.

Backlog navigation levels

- ☒ Epics
- ☐ Features
- ☐ Stories

Explanation: These settings ensure that the portfolio team is:

- Using Epics for planning.
- They are able to access children items and create Features or Stories but their main focus is on Epics.
- Using a planning cadence that includes all the program increments, and inherently all the sprints.
- Can track the progress of epics created at the portfolio level or any sub level.

Now that you successfully have created your “Modern Portfolio” team, we will repeat those steps to create our “CRM Program” team.

24. Repeat the same steps to set up team configuration for the “CRM Program”. The CRM Program plans using “Features” casted over “Program Increment” cadences:

/ Settings / Team configuration / CRM Program ▾

Boards ⓘ This project is currently using the Agile process. To customize your work item types, [go to the process customization page](#)

General **Iterations** Areas Templates

ⓘ To manage iterations for the project, navigate to [Project settings](#)

Iterations

Teams plan and track work at regular time intervals, commonly referred to as an iteration or sprint. Here you can manage [about customizing areas and iterations](#)

Default iteration ⓘ
@CurrentIteration [Change](#)

Backlog iteration ⓘ
hol [Change](#)

The iterations selected below will appear in the Sprints hub for your team. Each iteration will have a backlog and board

+ Select iteration(s) ✖ Remove | New New child

Iteration	Start Date	End Date
hol\FY 19 - H2\PI 1	6/4/2019	8/2/2019
hol\FY 19 - H2\PI 2	8/5/2019	10/4/2019

Once you have selected the iterations cadence, switch to the areas tab:

Select area(s)

Work items in the selected area path(s) will show up on your team's backlog

+ Area

hol\Modern Portfolio\CRM Program

☒ Include sub areas

Save and close

Cancel

Once you have selected the area for the team, switch to the backlogs tab:

Backlogs

See only the backlogs your team manages.

Backlog navigation levels

- ☐ Epics
- ☒ Features
- ☐ Stories

Now that you successfully have created your “CRM Program” team, we will repeat those steps to create our “Web CRM” team.

25. Repeat the same steps to set up team configuration for the “Web CRM” team:

Settings / Team configuration / Web CRM ▾

Search

Boards

i This project is currently using the Agile process. To customize your work item types, [go to the process customization page](#)

General **Iterations** Areas Templates

i To manage iterations for the project, navigate to [Project settings](#)

Iterations

Teams plan and track work at regular time intervals, commonly referred to as an iteration or sprint. Here you can manage [about customizing areas and iterations](#)

Default iteration **i**

@CurrentIteration

[Change](#)

Backlog iteration **i**

hol

[Change](#)


The iterations selected below will appear in the Sprints hub for your team. Each iteration will have a backlog and board

+ Select iteration(s) **×** Remove | New New child

Iteration	Start Date	End Date
hol\FY 19 - H2\PI 1\Sprint 1	6/3/2019	6/21/2019
hol\FY 19 - H2\PI 1\Sprint 2	6/24/2019	7/12/2019
hol\FY 19 - H2\PI 1\Sprint 3	7/15/2019	8/2/2019
hol\FY 19 - H2\PI 2\Sprint 4	8/5/2019	8/23/2019
hol\FY 19 - H2\PI 2\Sprint 5	8/26/2019	9/13/2019

Switch to the Areas tab

General Iterations **Areas** Templates



 To manage areas for the project, navigate to [Project settings](#)

Areas

Select the areas your team owns below. The selected area paths will determine what shows up o

Default area

hol\Modern Portfolio\CRM Program\Web CRM [Change](#)

 Select area(s)  Remove | [New](#) [New child](#)

Area




hol\Modern Portfolio\CRM Program\Web CRM

default area

Backlogs

See only the backlogs your team manages.

Backlog navigation levels

- ☐  Epics
- ☐  Features
- ☒  Stories

Exercise 3: Plan work streams collaboration flow

Introduction

In this exercise, you will learn how to use Kanban boards and backlogs to allow collaboration across teams, programs and portfolios. While alignment is needed across teams, a good level of autonomy is required to allow teams to scale Agile. Backlogs and Kanban boards are used by each team to organize how they work together to deliver value

Objectives

After completing this lab, you will be able to:

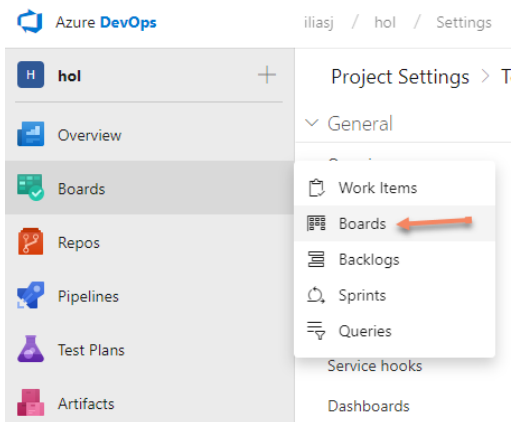
- Setup cross teams' collaboration.

Prerequisites

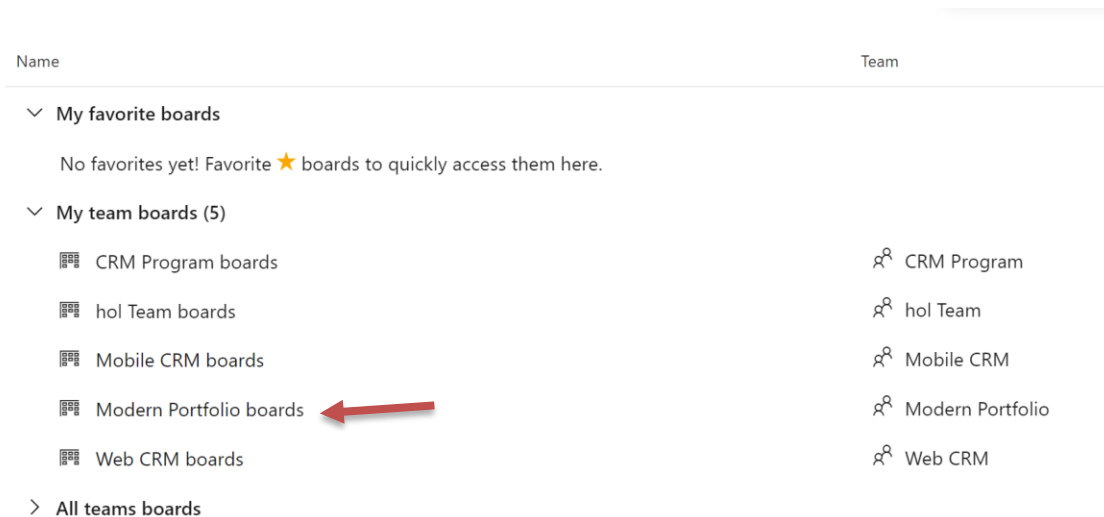
None

Tasks

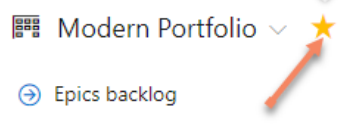
1. Navigate to the “[Boards](#)” section



2. Select the “[Modern Portfolio Boards](#)”



3. Add this board to your favorites:



4. Click on the “Configure team settings” icon:



5. Check the “Show ID” checkbox.
6. Under the “Fields” section, click on “+ Field” button, then add “Iteration Path”.

Fields

Show the important information to your team. Fields are editable directly on the card.

Epic

Core fields

☒ Show ID

☒ Show Assigned To as:

Avatar and full name (default) ▾

☒ Show Tags

Additional fields

Add up to 10 fields in the order that you want them to appear on the card.

+ Field

State ▾ ✕

Iteration Path ▾ ✕

Show empty fields

☒ Check if you want to display fields, even when they are empty.

7. Check the “Check if you want to display fields, even when they are empty” checkbox:
8. Under the “Columns” section:
 - Rename the “New” Column to “Backlog”.
 - Rename the “Active” Column to “In Progress”
 - Rename the “Closed” column to “Live”
 - Click on “In Progress” then click the “+ Column” button:

+ Column

- Name the column “Approved” and ensure the State is set to “New”

Backlog ... Approved ...

Column name

Name

Work in progress limit
Setting it to 0 specifies no limit.

WIP limit

☐ Split column into doing and done

State mapping
Specify the state this column maps to.

Epic

- Click on “In Progress” then click the “+ Column” button once more, and add “Planned” column:

Backlog ... Approved ... Planned ...

Column name

Name

Work in progress limit
Setting it to 0 specifies no limit.

WIP limit

☐ Split column into doing and done

State mapping
Specify the state this column maps to.

Epic

- Delete the Column “Resolved”

...

☒ Remove

☐ Move left

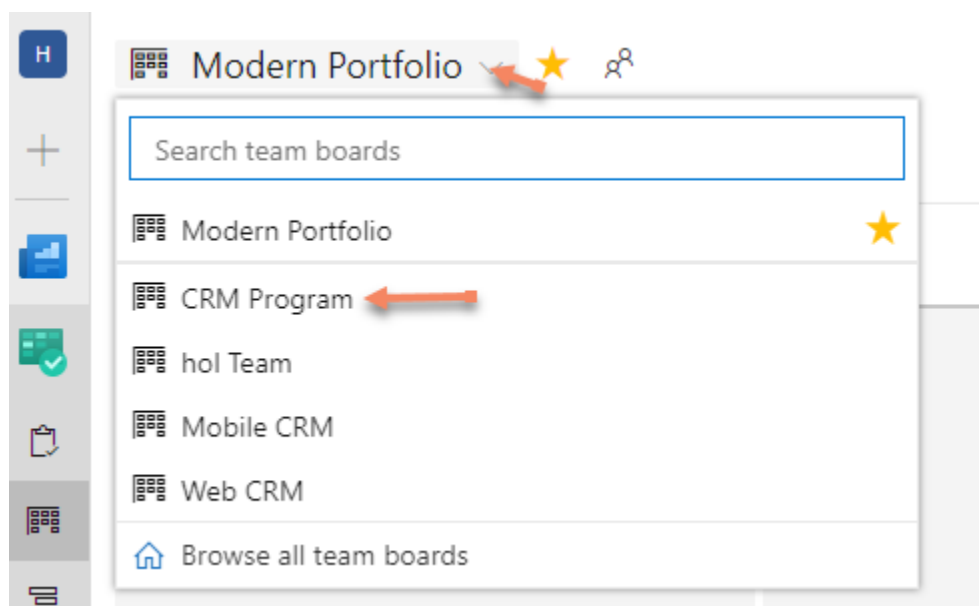
☐ Insert left

☐ Insert right

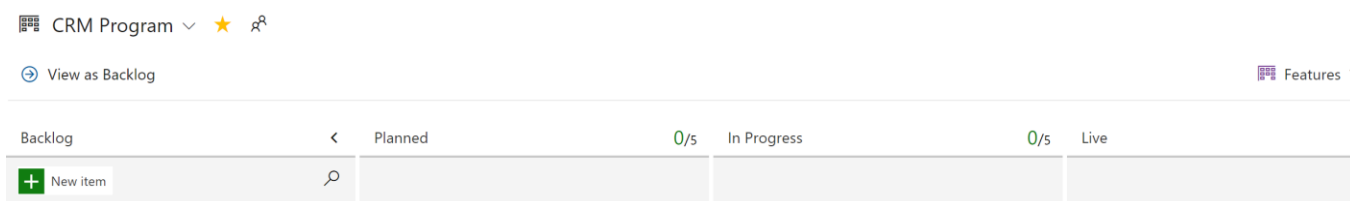
The “Modern Portfolio Team” Epics board should now look as follow:

Backlog	<	Approved 0/5	Planned 0/5	In Progress 0/5	Live	<
New item						

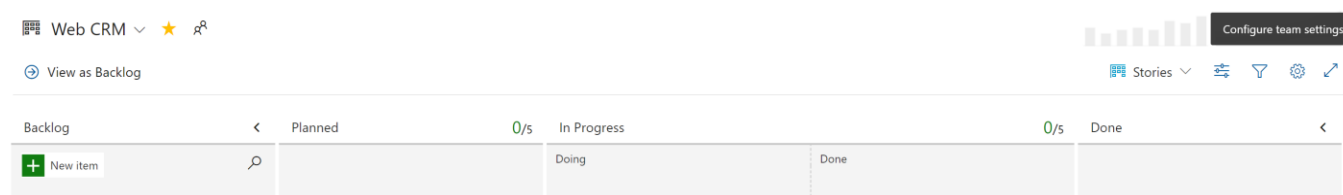
35. Using the team drop down, switch to the CRM Program board:



36. Without any visual assistance, navigate to the “CRM Program” board and set up the following features board columns. Add this board to your favorites:



37. Without any visual assistance, navigate to the “Web CRM” board area and set up the following stories board columns. Add this board to your favorites:



Exercise 4: Portfolio planning

Introduction

The portfolio team is responsible of setting up the mid-term to long term goals and initiatives. They do that by creating Epics. In this exercise, you will learn how portfolio teams can use Kanban boards to plan for mid to long term objectives.

Objectives

After completing this lab, you will be able to:

- Use boards to plan at the portfolio level.

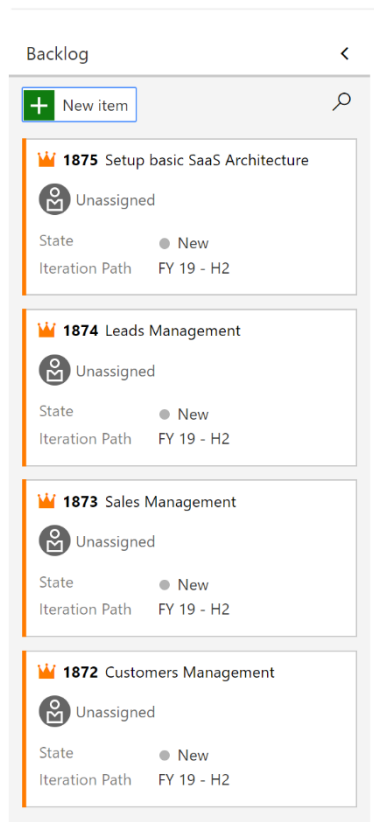
Prerequisites

None

Tasks

1. Navigate to the “Modern Portfolio” board
2. Add the following 4 Epics (the ID numbers will be automatically generated):

[View as Backlog](#)



3. Click on the “Unassigned” icon and assign these epics to yourself (In a real-world scenario these epics may be assigned to the product owner).

4. Open the “Set up basic SaaS Architecture” Epic, then assign “Architectural” in the Value Area:

EPIC 1875*

1875 Setup basic SaaS Architecture

0 comments Add tag

State: New Area: hol\Modern Portfolio Reason: New Iteration: hol\FY 19 - H2 Details Launch

Description
Click to add Description

Discussion
Add a comment. Use # to link a work item, ! to link a pull request, or @ to mention a person.

Planning
Priority: 2
Risk:
Effort:
Business Value:
Time Criticality:
Start Date:
Target Date:

Classification
Value area:
Architectural
Architectural
Business

5. Click on the “Add Tag” button and enter “MVP”. Click on it Once more and enter “Compete”.

Note: Using tags at this level, allows you to define the value streams, themes or funding sources of these epics. In other words, what is the value to your organization or your customer from trying to implement these business needs.

EPIC 1875*

1875 Setup basic SaaS Architecture

0 comments Compete X MVP X +

6. Use the same steps to assign the following values to the remaining epics in the:

- Epic: “Leads Management”
Value Area: Business
Tags: MVP
- Epic: “Sales Management”
Value Area: Business
Tags: MVP
- Epic: “Customers Management”
Value Area: Business
Tags: MVP and Compete

- Click on the board settings icon:



- Click on the “Swim lanes” section:
- Click the “+Swimlane” button
- Name the swim lane “Business”
- Click on the default swim lane and rename it to “Architecture”.

The use of swim lanes allows you to visually track the progress of your epics using additional angles in addition to your normal workflow which represented by the columns.

- Drag the Epics to the “Approved” Column, but move them to the correct swim lane depending on whether they bring business or Architecture value:

Approved 4/5

Business

1872 Customers Management

State: New

Iteration Path: FY 19 - H2

Compete MVP

1874 Leads Management

State: New

Iteration Path: FY 20 - H1

MVP

1873 Sales Management

State: New

Iteration Path: FY 20 - H1

MVP

Architecture

1875 Setup basic SaaS Architecture

State: New

Iteration Path: FY 19 - H2

Compete MVP

- Assign the first Epic from each value area (business and architecture) to the current iteration. Assign the last two Epics to the next iteration.

This last action means that the portfolio team, **would like** to get these Epics done within **the next 6 months**. The program teams will then have to figure out how they will be able to achieve that.

14. Drag the epics, that you have assigned to an iteration, to the Planned column, allowing to mark them as planned.

15. Try collapsing the swim lanes and note how you get a roll up view of how many epics are in each stage of your workflow:

Backlog	<	Approved	2/5	Planned	2/5	In Progress	0/5
+ New item	🔍	Business	2 Approved	1 Planned			
		Architecture	1 Planned				

Exercise 5: Program planning

Introduction

The program team is responsible of defining how the organization will achieve the goals and value that the portfolio has defined. They do that by creating and managing Features. In this exercise, you will learn how program teams can use a feature backlog to plan for mid to long term objectives.

Objectives

After completing this lab, you will be able to:

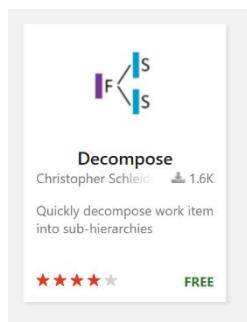
- Use backlogs to plan at the program level.

Prerequisites

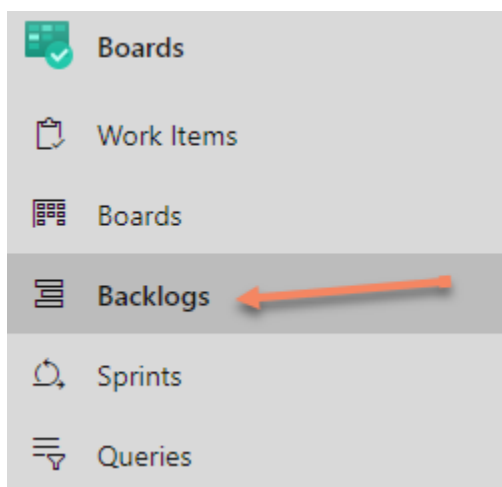
None

Tasks

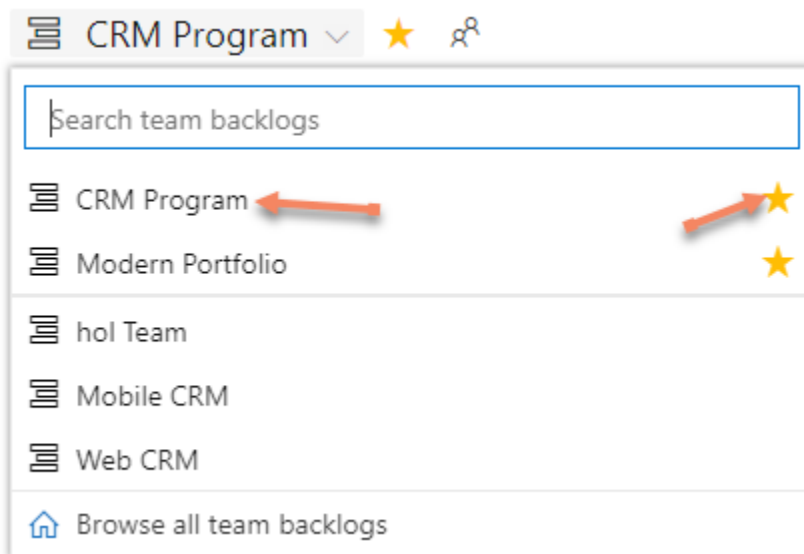
56. Install the Decompose extension from the marketplace – hover over the shopping bag icon in the righthand corner, click ‘[Browse Marketplace](#)’ then search ‘[Decompose](#)’ and install it for free



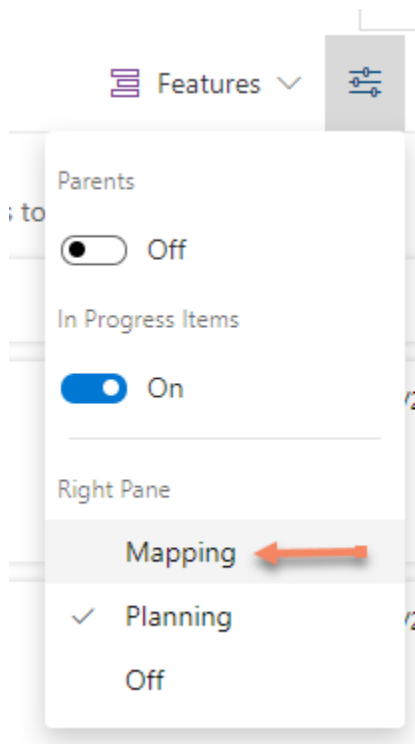
57. Navigate to the “[Backlogs](#)” section:



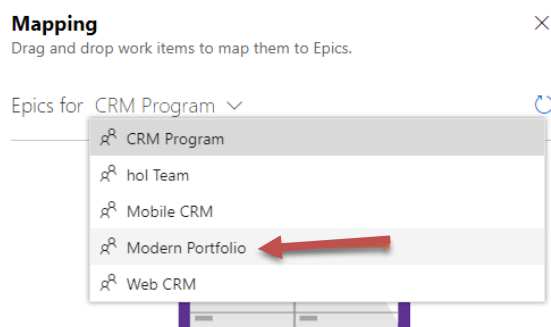
58. Switch to the “CRM Program” team backlogs:



59. Turn “Mapping” on:

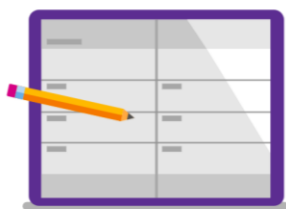


60. Click on the selected “mapped to team” drop down and select the Modern Portfolio:



61. Add the following Features, by clicking on the “+ New Work Item” button:

- “Initial Multi-Tenant Database Architecture”.
- “Initial Multi-Tenant REST API”
- “Initial Multi-Tenant User Interface”.



Get started with your product backlog

Use the “New Work Item” command to create and prioritize work items



62. Select these three features then drag and drop them onto the “Set up basic SaaS Architecture”

Title	State	Effort	Busin...	Value Area	Tag
Initial multi-tenant user interface	... ● New			Business	
Initial multi-tenant REST API	... ● New			Business	
Initial multi-tenant database architecture	... ● New			Business	

Mapping
Drag and drop work items to map them to Epics.

Epics for Modern Portfolio ▾

- 👑 Customers Management
- 👑 Leads Management
- 👑 Sales Management
- 👑 Setup basic SaaS Architecture

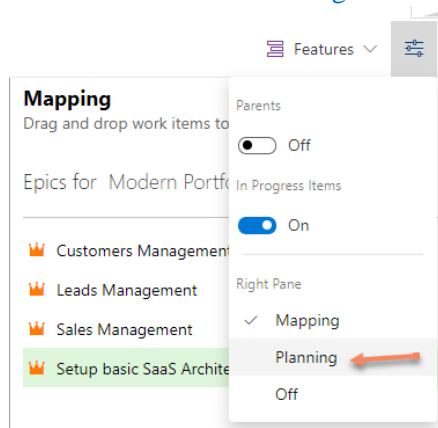
63. Add the following Features

- “Create Customers”
- “Edit Customers”
- “Search Customers”
- “Archive Customers”

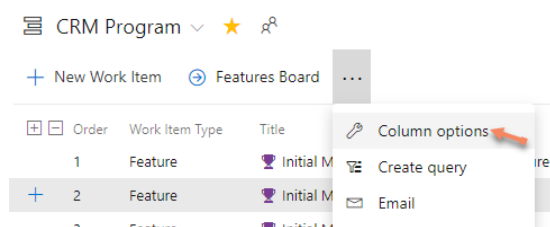
64. Select these four features and drag and drop them onto the “Customers Management” Epic:
These features will eventually get implemented by different feature teams.



65. Switch to the “Planning” view:



66. Click on “Column Options”:



67. Add “iteration path” and “parent” to the columns visible on the screen:

Column options

Add or remove columns. To change the column order, drag and drop a field, or use the keyboard shortcuts, Ctrl+Up or Ctrl+Down.

Title	
Parent	✗
State	✗
Effort	✗
Tags	✗
Iteration Path	✗

+ Add a column

68. Click “Ok” to confirm your changes. Your features backlog should now look as follows:

CRM Program ▾ ★ ⌘

+ New Work Item → View as Board ⚙ Column Options ...

	Order	Title	Parent	State
+	1	🏆 Archive customers	... 🏆 Customers Management	● New
	2	🏆 Search for customers	🏆 Customers Management	● New
	3	🏆 Edit customers	🏆 Customers Management	● New
	4	🏆 Create customers	🏆 Customers Management	● New
	5	🏆 Initial multi-tenant user interface	🏆 Setup basic SaaS Architecture	● New
	6	🏆 Initial multi-tenant REST API	🏆 Setup basic SaaS Architecture	● New
	7	🏆 Initial multi-tenant database architecture	🏆 Setup basic SaaS Architecture	● New

69. Click on “View as Board”:



70. Drag the first two features to the “Planned” column:

CRM Program ▾ ★ ⌘

→ View as Backlog

Backlog

+ New item 🔍

🏆 1878 Initial multi-tenant user interface

👤 Unassigned

State ● New

Iteration Path

🏆 1882 Archive customers

👤 Unassigned

State ● New

Iteration Path

🏆 1881 Search for customers

👤 Unassigned

State ● New

Iteration Path

Planned 2/5

🏆 1876 Initial multi-tenant database architecture

👤 Unassigned

State ● New

Iteration Path PI 1

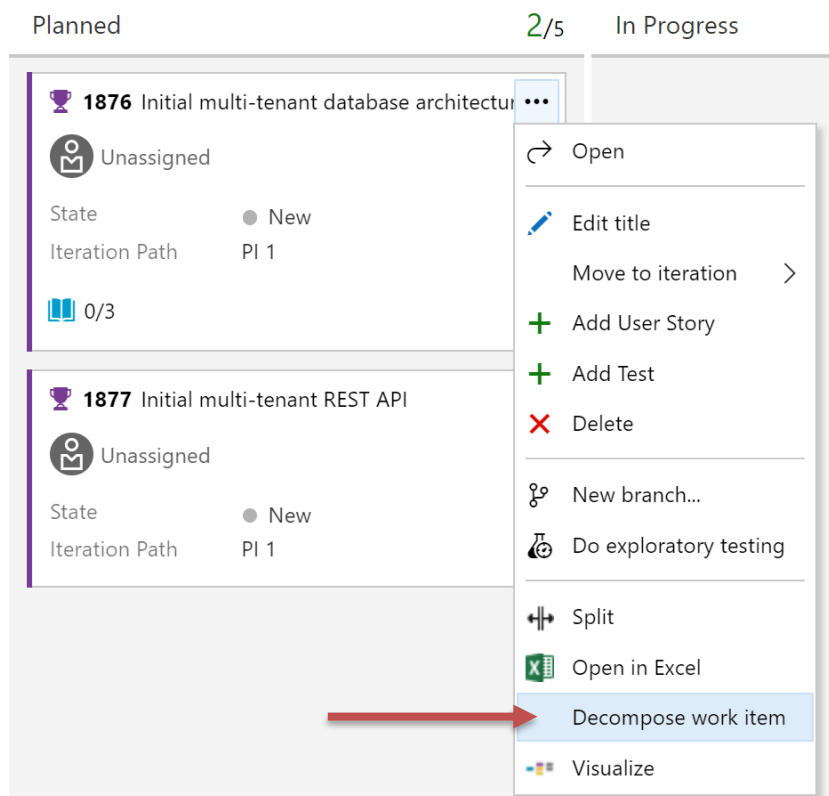
🏆 1877 Initial multi-tenant REST API

👤 Unassigned

State ● New

Iteration Path PI 1

71. Using the context menu of the “Initial Multi-Tenant Database Architecture” click on decompose:



72. Enter the following stories

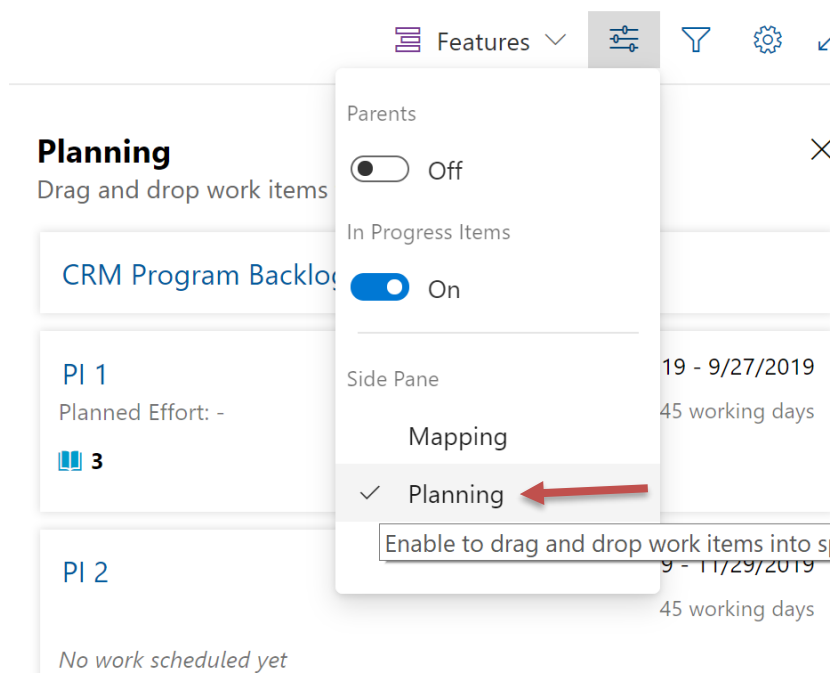
Decompose

Feature Initial Multi Tenant database Architecture

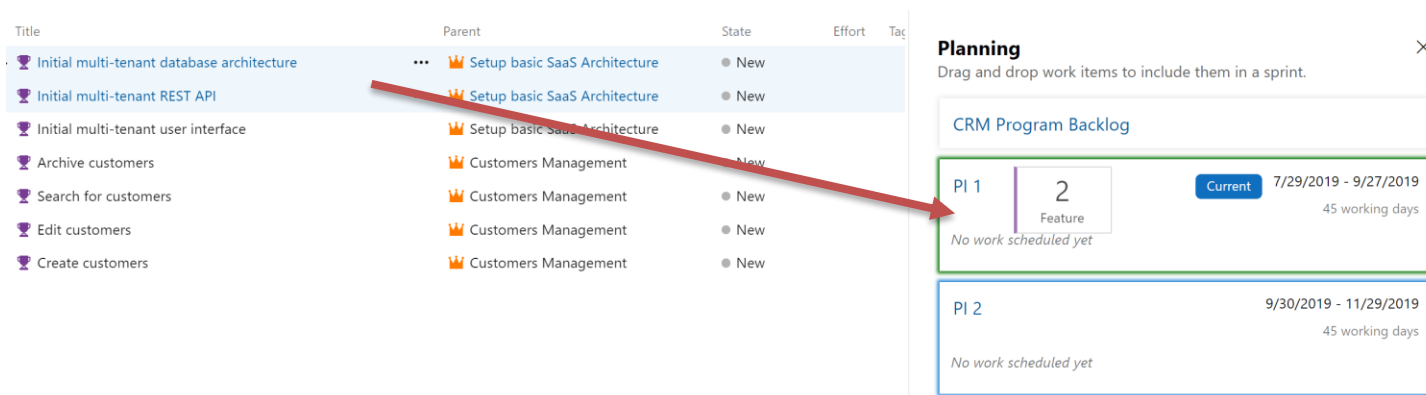
User Story	Create Initial ERD Diagram	< > X
User Story	Create Sharding Architecture	< > X
User Story	Create DB CI/CD	< > X

73. Click “Create” to save the changes.

74. Switch back to the “Features backlog” and ensure the “Planning” side pane is turned on.



75. then drag the first two features towards “PI 1” Iteration.



76. Once the Features are planned, we can see the total planned effort for the current program increment(stories and Bugs):



Planning ×

Drag and drop work items to include them in a sprint.

CRM Program Backlog

PI 1 Current 7/29/2019 - 9/27/2019

Planned Effort: - 45 working days

 3 





PI 2 9/30/2019 - 11/29/2019

45 working days

No work scheduled yet

+ New Sprint

77. Toggle the “View Parents” option:

Features    


Planning ×

Drag and drop work items to

Backlog

PI 1 Current


Planned Effort: -

 3

PI 2

No work scheduled yet

Parents

☐ Off 

In Progress Items

☒ On

Right Pane

Mapping

✓ Planning

Off

78. You should get the following view:

Title	Parent	State	Effort	Tags	Iteration Path
👑 Customers Management		● New		Complete MVP	hol\FY 19 - H2
🏆 Archive customers	👑 Customers Management	● New			hol
🏆 Search for customers	👑 Customers Management	● New			hol
🏆 Edit customers	👑 Customers Management	● New			hol
🏆 Create customers	👑 Customers Management	● New			hol
👑 Setup basic SaaS Architecture		● New		Complete MVP	hol\FY 19 - H2
🏆 Initial multi-tenant database architecture	👑 Setup basic SaaS Architecture	● New			hol\FY 19 - H2\PI 1
📊 Initial ERD Diagram	🏆 Initial multi-tenant database archite...	● New			hol\FY 19 - H2\PI 1
📊 Initial Sharding Architecture	🏆 Initial multi-tenant database archite...	● New			hol\FY 19 - H2\PI 1
📊 DB CI CD Architecture	🏆 Initial multi-tenant database archite...	● New			hol\FY 19 - H2\PI 1
🏆 Initial multi-tenant REST API	👑 Setup basic SaaS Architecture	● New			hol\FY 19 - H2\PI 1
🏆 Initial multi-tenant user interface	👑 Setup basic SaaS Architecture	● New			hol

79. Select the three “Stories” then click on “Edit”:

The screenshot shows the 'Setup basic SaaS Architecture' hierarchy. Under 'Initial Multi-Tenant Database Architecture', three stories are selected: 'Create ERD', 'Create Sharding', and 'Create DB CI/CD'. A context menu is open for the selected items, with the 'Edit...' option highlighted by a red arrow.

80. Assign “Web CRM” to the “Area Path” then hit save:

Edit work items

The 'Edit work items' dialog box is shown. The 'Field' is set to 'Area Path'. The 'Value' dropdown is open, showing a tree structure of areas. The path 'hol > Modern Portfolio > CRM Program > Web CRM' is selected, with a red arrow pointing to 'Web CRM'. The 'Notes for History' section is empty. At the bottom are 'Save' and 'Cancel' buttons.

Exercise 6: Feature team planning

Introduction

Feature teams are responsible of the technical implementation of features defined by the program teams. They operate in an autonomous, self-organizing way.

Objectives

After completing this lab, you will be able to:

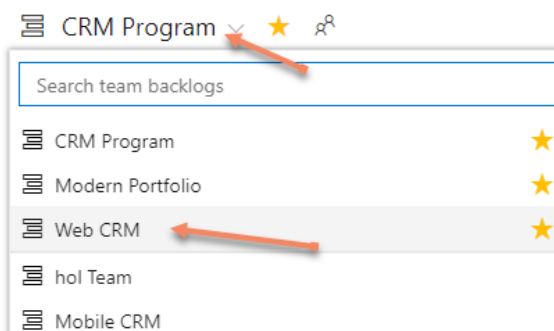
- Use Stories backlogs and boards to plan sprints.

Prerequisites

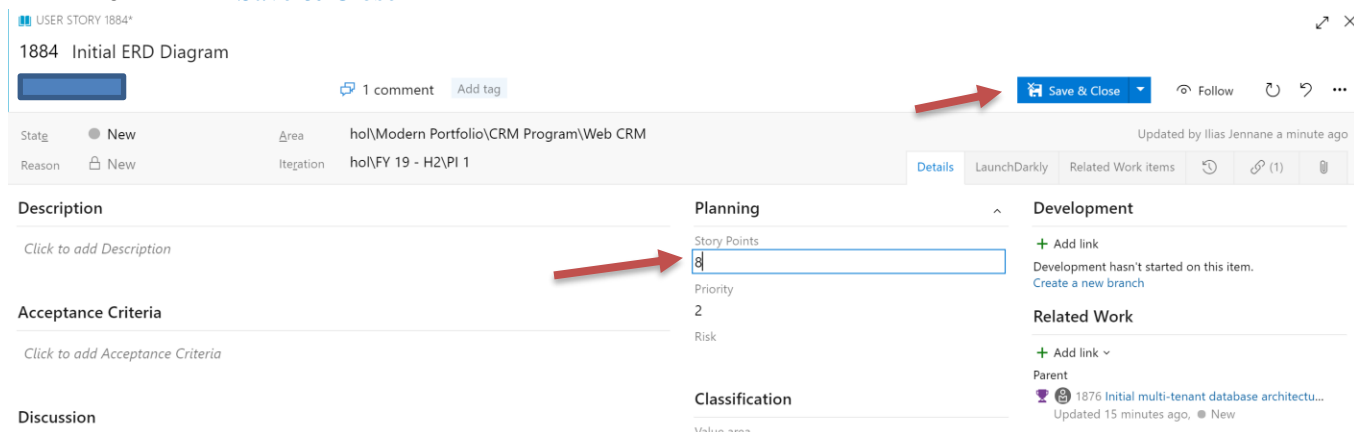
None

Tasks

1. Navigate to the “**Web CRM**” team backlog:



2. Open the “[Create initial ERD Diagram](#)” story:
3. Assign it to *yourself*.
 - Enter “8” in the story points field. (Assuming you are using story points to estimate Stories and bugs complexity)
 - Click “[Save & Close](#)”



4. Open the “[Create Sharding Architecture](#)” story
 - Assign it to **yourself**
 - Assign 5 story points to it
5. Open the “[Create DB CI/CD](#)” story
 - Assign it to yourself
 - Assign 5 story points to it

Since this is the first iteration for this team, the team’s velocity is not yet available. Hence, forecasts are not going to be high fidelity.

6. Drag and drop the first two Stories onto sprint 1.

The screenshot shows the Azure DevOps Planning interface. On the left, a table lists three stories:

Title	State	Effort	Value Area	Iteration Path	Tags
Create initial ERD Diagram	New	8	Business	hol\FY 18 - H2\PI 1	
Create Sharding	New	5	Business	hol\FY 18 - H2\PI 1	
Create DB CI/CD	New	5	Business	hol\FY 18 - H2\PI 1	

On the right, the 'Planning' view shows a 'Backlog' and two sprints. An orange arrow points from the 'Create Sharding' story in the table to a card in 'Sprint 1'. The 'Sprint 1' card is labeled 'Current' and shows '2' story points. 'Sprint 2' is also visible below it.

7. Drag and drop the last story onto sprint 2.
8. Your planning summary should now look as follows:

Planning

Drag and drop work items to include them in a sprint.

The screenshot shows the 'Web CRM Backlog' planning view. It displays three sprints:

- Sprint 1** (Current): 7/29/2019 - 8/16/2019, Planned Effort: 13, 15 working days. It contains 2 story points.
- Sprint 2**: 8/19/2019 - 9/6/2019, Planned Effort: 5, 15 working days. It contains 1 story point.
- Sprint 3**: 9/9/2019 - 9/27/2019, 15 working days. It contains 'No work scheduled yet'.

Exercise 7: Delivery Planning

Objectives

After completing this lab, you will be able to:

- Use delivery plans to track cross team collaboration and plan upcoming milestones.

Prerequisites

None

Tasks

1. Go to the settings page and send the Mobile CRM team to use the same sprints as the Web CRM team, use the “[Mobile CRM](#)” area and Stories for planning.

Team configuration / Mobile CRM ▾

Boards

i This project is currently using the Agile process. To customize your work item types, [go to the process customization page](#)

General **Iterations** Areas Templates

i To manage iterations for the project, navigate to [Project settings](#)

Iterations

Teams plan and track work at regular time intervals, commonly referred to as an iteration or sprint. Here you can manage [and iterations](#)

Default iteration **i**

@CurrentIteration

[Change](#)

Backlog iteration **i**

hol

[Change](#)

The iterations selected below will appear in the Sprints hub for your team. Each iteration will have a backlog and board to

[+](#) Select iteration(s) [✗ Remove](#) | [New](#) [New child](#)

Iteration	Start Date	End Date
hol\FY 19 - H2\PI 1\Sprint 1	7/29/2019	8/16/2019
hol\FY 19 - H2\PI 1\Sprint 2	8/19/2019	9/6/2019
hol\FY 19 - H2\PI 1\Sprint 3	9/9/2019	9/27/2019
hol\FY 19 - H2\PI 2\Sprint 4	9/30/2019	10/18/2019
hol\FY 19 - H2\PI 2\Sprint 5	10/21/2019	11/8/2019

Areas

Select the areas your team owns below. The selected area paths will determine what shows up on

Default area

hol\Modern Portfolio\CRM Program\Mol [Change](#)

+ Select area(s) ✕ Remove | New New child

Area

hol\Modern Portfolio\CRM Program\Mobile CRM default area


Backlogs

See only the backlogs your team manages.

Backlog navigation levels

- ☐ Epics
- ☐ Features
- ☒ Stories

2. Install the “[Delivery Plans](#)” extension from the “[Azure DevOps Services](#)” marketplace:



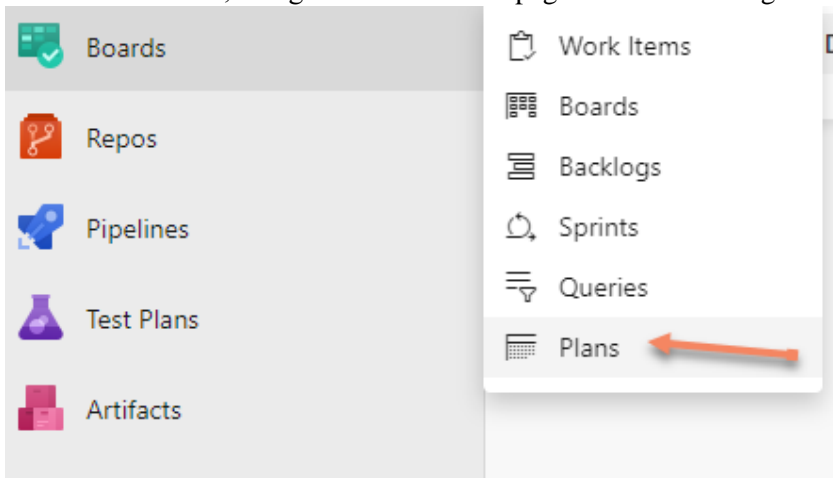
Delivery Plans

Microsoft | 17,134 installs | ★★★★★ (36) | Free

Manage your portfolio of work with a calendar based view across teams and projects.

[Get it free](#)

3. Once installed, navigate to the “[Plans](#)” page via the left navigation menu:



4. Click on “[New plan](#)”:



You haven't created a Plan yet!

Once you create a plan you will be able to visualize and track work across all your teams.

[New plan](#)

5. Name the plan “[CRM Delivery Plan](#)” and add the following teams and backlogs to it:

New delivery plan

A delivery plan shows you when work will be delivered across your teams. The plan overlays each team's sprint onto a familiar calendar view. You can view multiple backlogs and multiple teams across your whole organization. [Learn more](#)

Name *

CRM Delivery Plan

Description

Allows planning and tracking CRM current and upcoming features

Project *

hol

Team *

CRM Program

Backlog *

Features

hol

Web CRM

Stories

hol

Mobile CRM

Stories

[+ Add team](#)

Field Criteria

Use field criteria to limit the work items appearing on your plan. This criteria applies to all users of the plan.

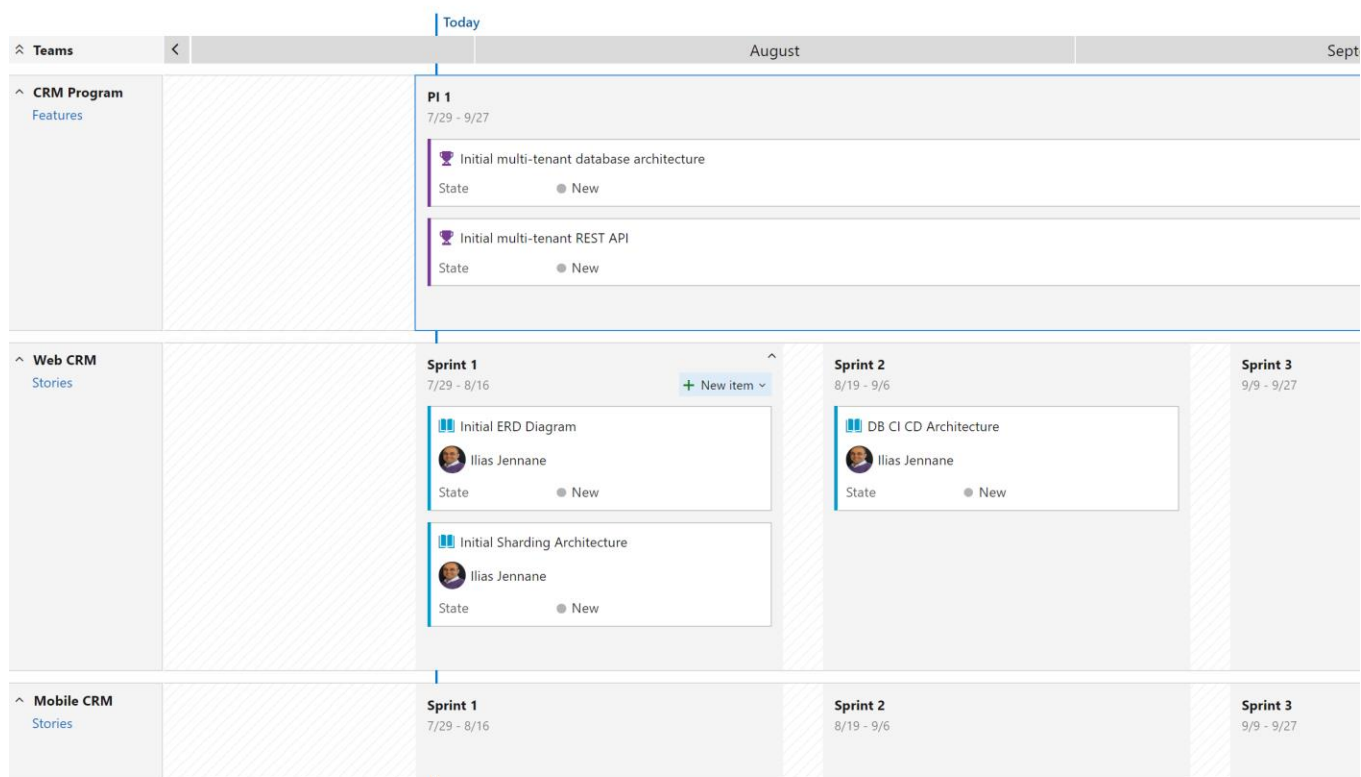
[+ Add criteria](#)

Create

Cancel

6. Once created, you should get the following view:

Plans > CRM Delivery Plan



7. Click on the settings icon at the top of the delivery plan:



8. Add the following timeline markers. The first date should be before the end of the current PI 1 and the second date at the start of the PI 2:

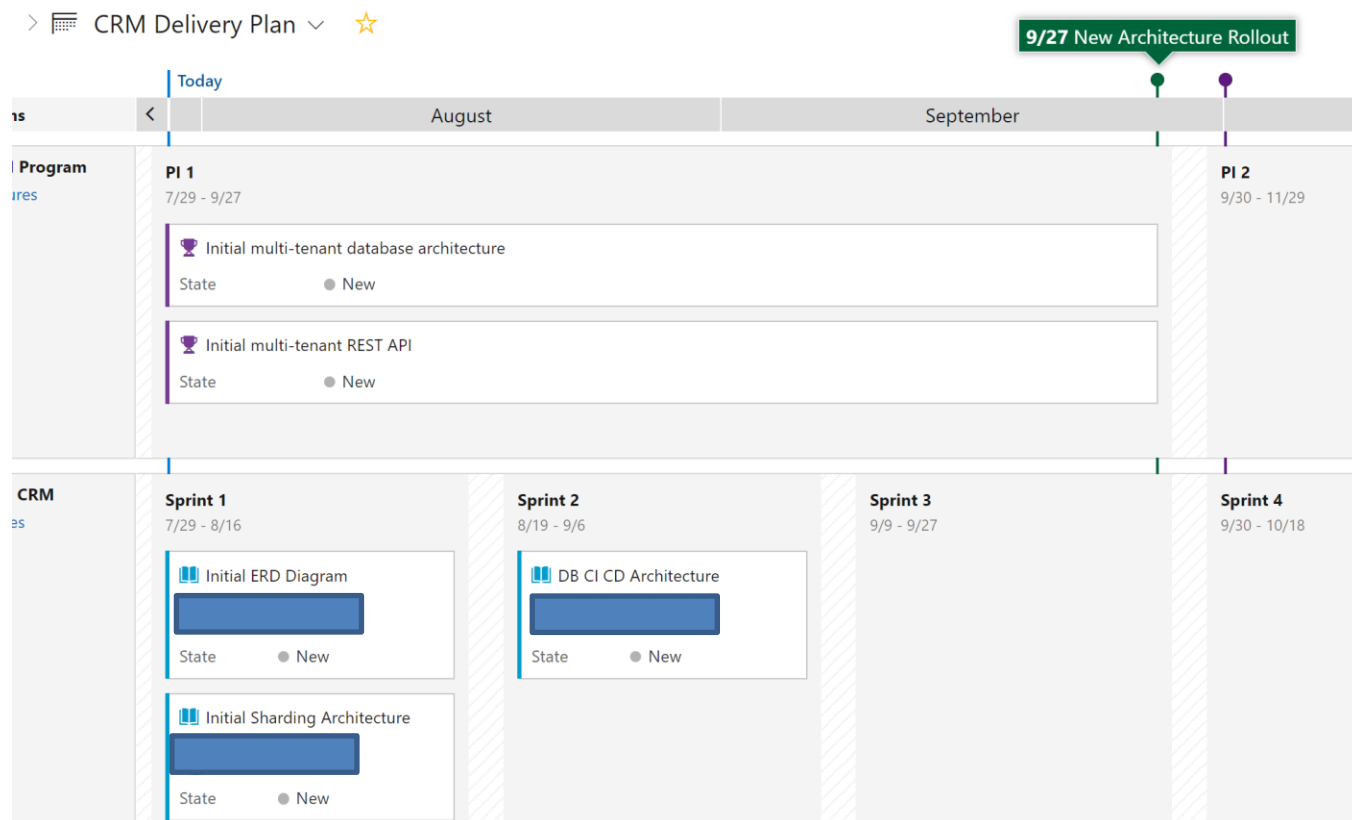
Configure plan markers

Plan markers are key dates and events you want to track.

+ Add marker

Date *	Label *	Color *
Tuesday, [Date]	New Architecture rollout	Green
Friday, [Date]	New Architecture Demo	Purple

9. The delivery plan should now reflect the newly added markers:



This plan should allow you to plan and track for:

- Cross project, cross teams' dependencies.
- Major milestones.
- Important dates