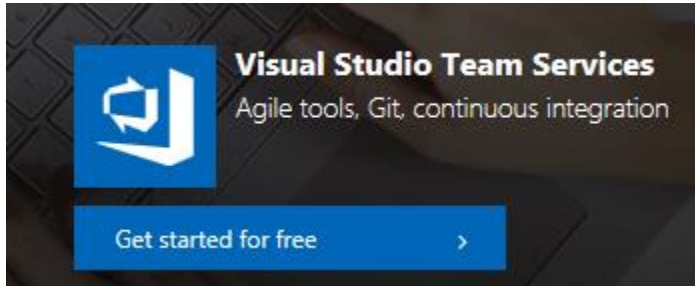


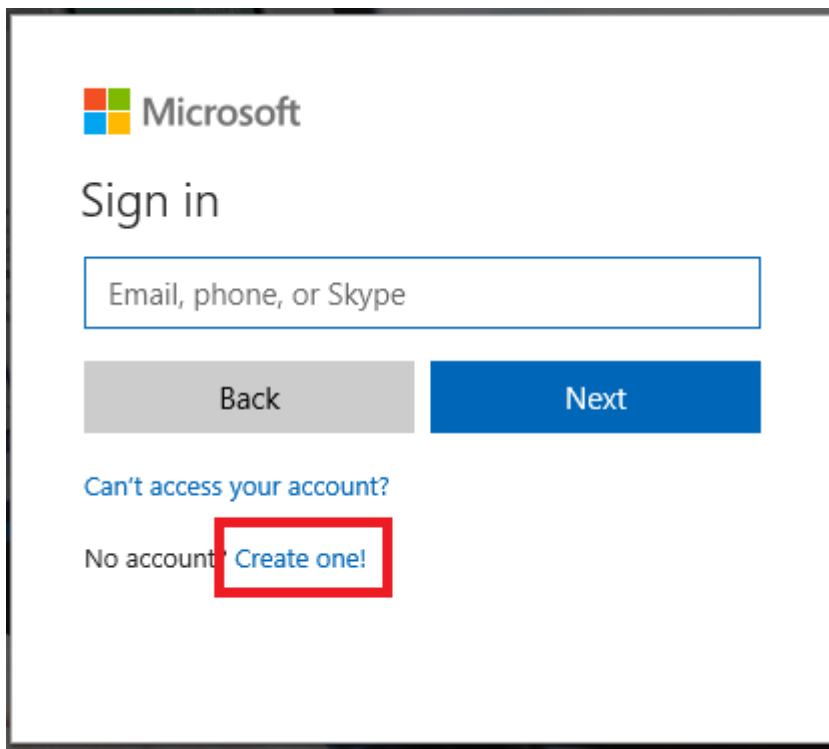
Visual Studio Team Services (VSTS)

Exercise: Create VSTS account and a Team Project in it, add team members

1. Start browser and enter URL <http://www.visualstudio.com>

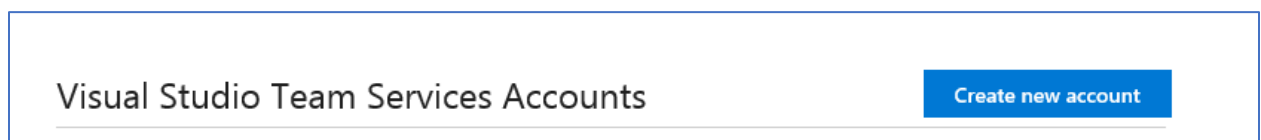


2. Click on Visual Studio Team Services - Get Started for Free
3. Sign in with any Microsoft Account (Please do not use your company id, use a personal one, preferably the one you used while creating Azure Account). If you do not have any id click on Create one!



Follow instruction for creating a new or enter email and password.

4. Click on Create new Account





5. Provide unique name for the VSTS account, provide any name of your choice. Click on change details. Make sure that you have selected Git as source control and Scrum as process template as follows. Provide name for the project

Host my projects at:

.visualstudio.com


Manage code using:

☒  Git


☐  Team Foundation Version Control

Project name:

Organize work using:

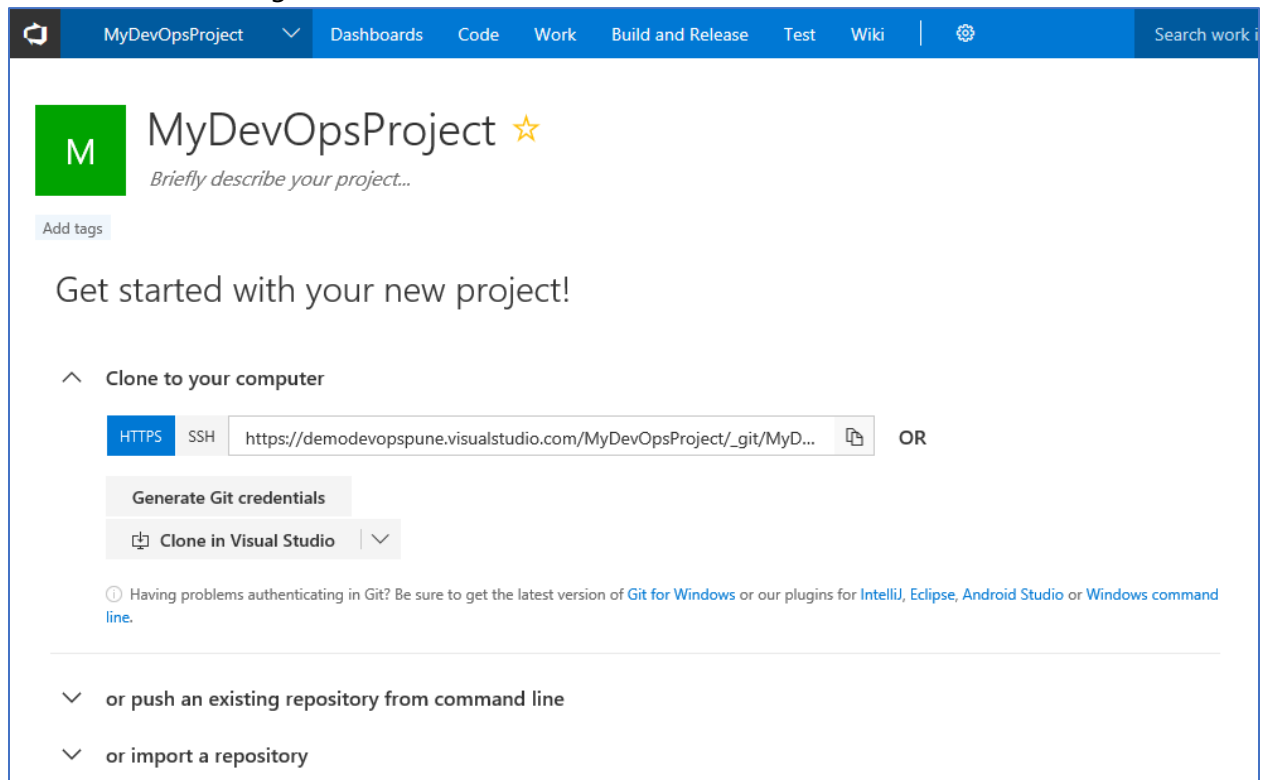


Host your projects in:



Click on Continue button. after a short while a new account with the specified project name will be created.

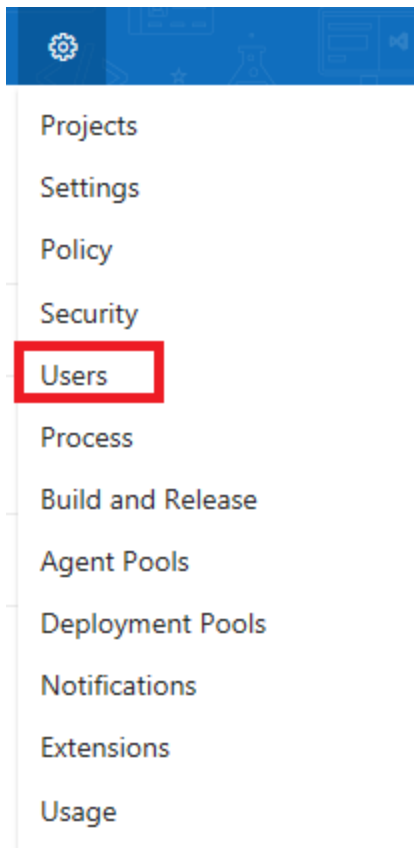
6. You can see following on the screen



7. Let us add a couple of users to our new account. go to home for account by clicking on left



8. Select Users from Gear icon



9. Provide user name, select that he/she has access to the new project created and click on add. You can add multiple users at a time by separating the list with ;
You can see the users added and their access levels. we can add up to 5 users to the account, Browse to the project name
10. On project settings select Security. All the groups of the project will be shown. Click Create Group button and add a group named Project Managers. Set permissions to this group as shown:

The screenshot shows the Azure DevOps Security settings for the 'Project Managers' group. The left sidebar has a 'Create group' section with a search bar 'Filter users and groups'. Below it, there are two expandable sections: 'Teams' (containing 'EMS Team') and 'VSTS Groups' (containing 'Build Administrators', 'Contributors', 'Project Administrators', 'Project Managers' (selected), 'Project Valid Users', and 'Readers'). The main area shows the permissions for 'Project Managers' with a breadcrumb 'EMS > Project Managers' and an 'Edit...' button. Below this, there are tabs for 'Permissions', 'Members', and 'Member of'. The 'Permissions' tab is active, showing a list of permissions and their status.

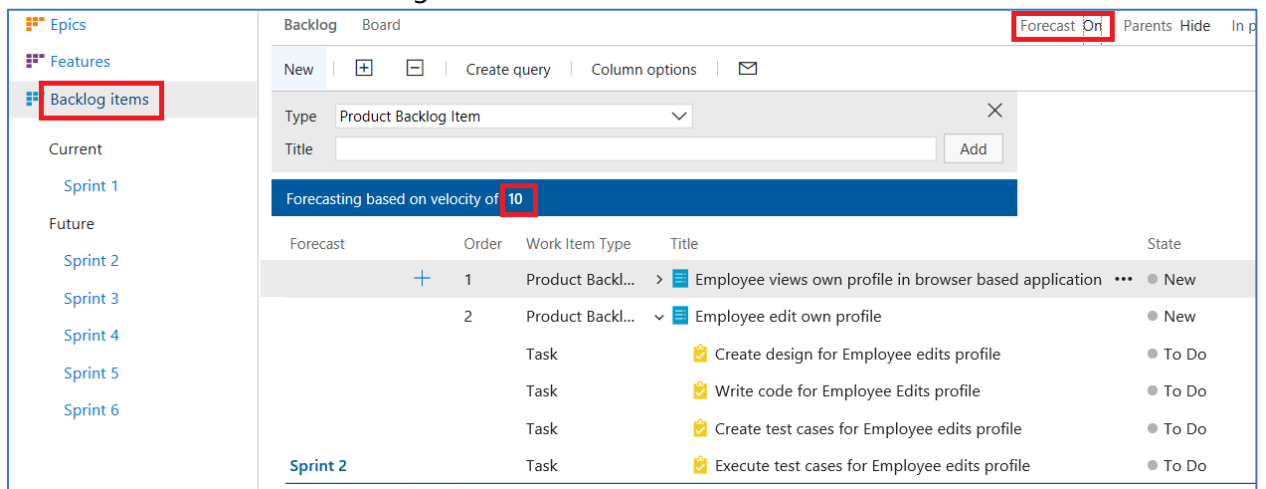
Permissions	Members	Member of
Project Managers		
Bypass rules on work item updates		Not set
Change process of team project.		Not set
Create tag definition		Not set
Create test runs		Not set
Delete and restore work items		Not set
Delete shared Analytics views		Allow (inherited)
Delete team project		Not set
Delete test runs		Not set
Edit project-level information		Allow
Edit shared Analytics views		Allow (inherited)
Manage project properties		Allow
Manage test configurations		Not set
Manage test environments		Not set
Move work items out of this project		Allow
Permanently delete work items		Allow
Rename team project		Allow
Suppress notifications for work item updates		Not set
Update project visibility		Allow
View analytics		Allow (inherited)
View project-level information		Allow

11. You may similarly create groups for Scrum Masters, Tech Leads, Developers etc. and give appropriate permissions to them. You will also be able to give permissions at the levels of Work Item Queries, Backlogs, Code etc.

Exercise: Iteration Planning Board (All User Stories View)

1. We need to ensure that we have assigned various work items to various team members. Please do the needful if you have not done already by following the steps below

2. Create a query for all work items, under shared folder and name it suitably. Open Excel, connect to the Team Project using Team tab – New List and get all work items using query
3. Add column for Activity. For all tasks provide activity and Publish. Provide Assigned To for each work item.
4. Click on Forecast: On for Backlog items

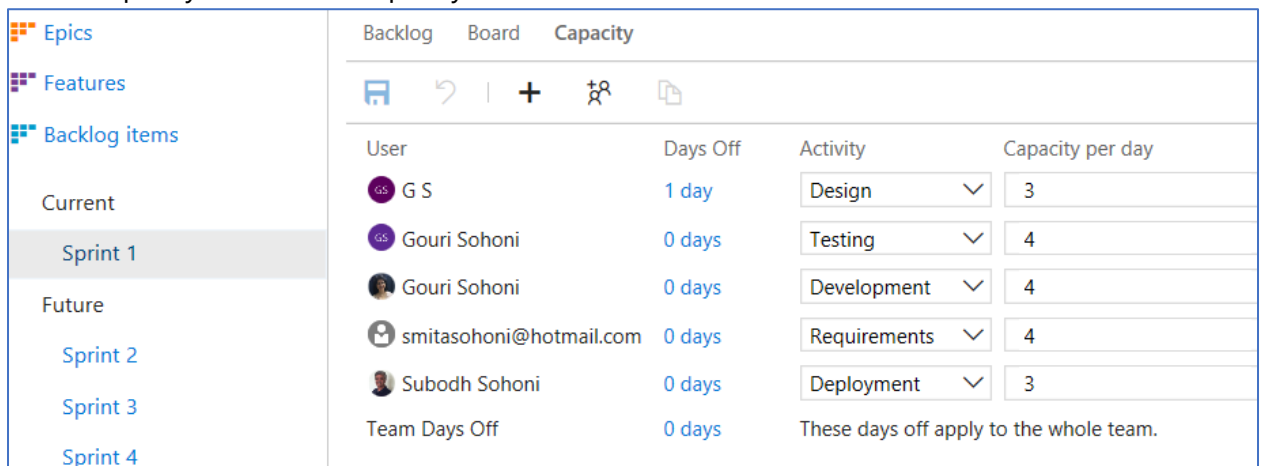


The screenshot shows the Jira Backlog view. On the left sidebar, 'Backlog items' is highlighted. The main area shows a 'Forecast' section with a velocity of 10. Below this, a table lists work items for the forecast.

Forecast	Order	Work Item Type	Title	State
	1	Product Backlog Item	Employee views own profile in browser based application	New
	2	Product Backlog Item	Employee edit own profile	New
		Task	Create design for Employee edits profile	To Do
		Task	Write code for Employee Edits profile	To Do
		Task	Create test cases for Employee edits profile	To Do
		Task	Execute test cases for Employee edits profile	To Do

With the value of Velocity set to 10 we see that first 2 PBIs are considered for Sprint 1

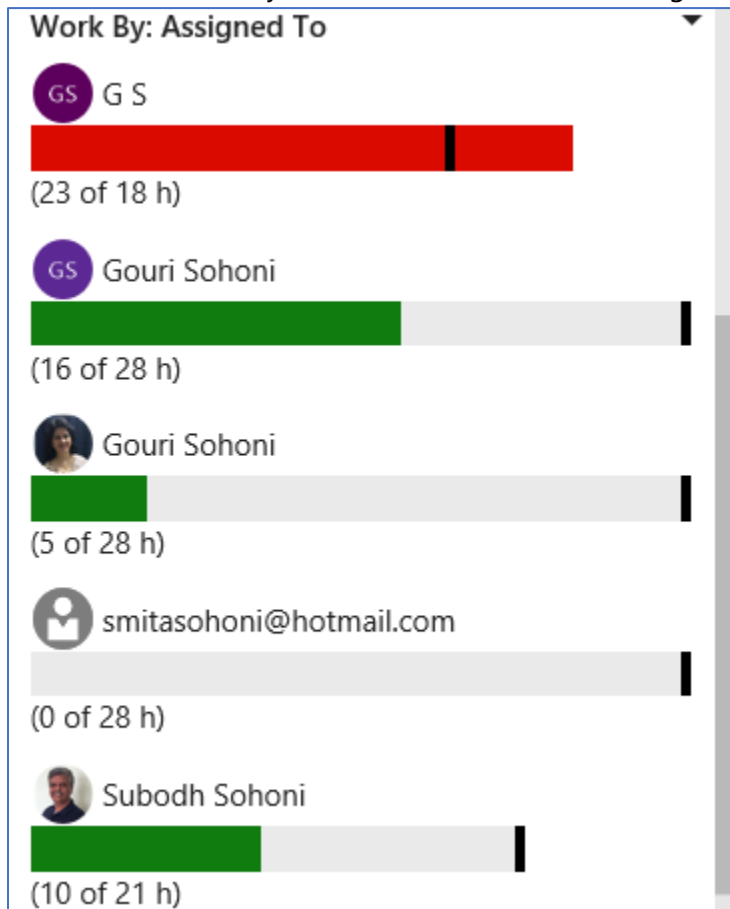
5. Drag and drop these PBIs to Sprint 1
6. Set date for Sprint 1 so as to have 7 working days in it.
7. Select Capacity and set the capacity for the team



The screenshot shows the Jira Capacity view. The 'Capacity' tab is selected. The table below shows the capacity settings for the team.

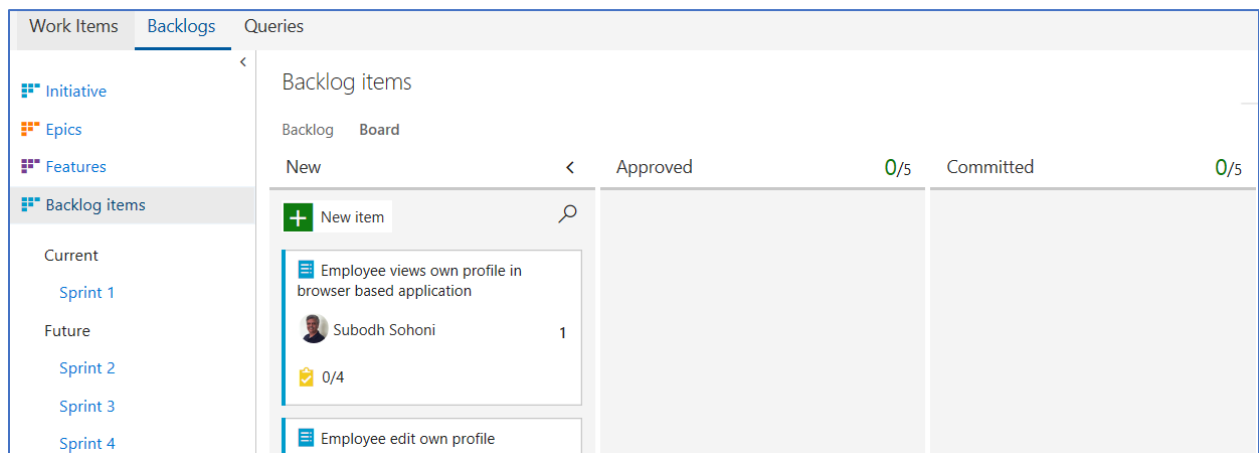
User	Days Off	Activity	Capacity per day
G S	1 day	Design	3
Gouri Sohoni	0 days	Testing	4
Gouri Sohoni	0 days	Development	4
smitasohoni@hotmail.com	0 days	Requirements	4
Subodh Sohoni	0 days	Deployment	3
Team Days Off	0 days	These days off apply to the whole team.	

8. We can automatically find the work details on the right hand side.

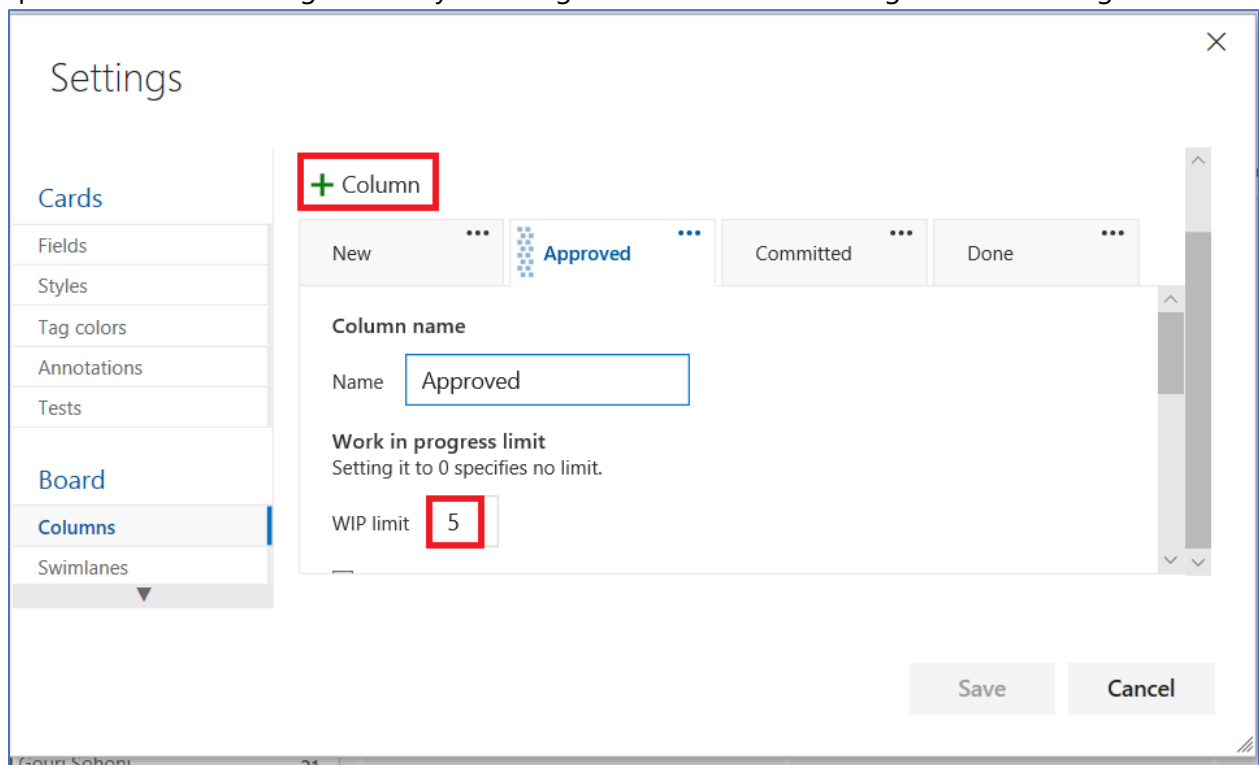


we can observe that the team members have not been assigned work properly. As one team member is overworked and some are working very leisurely. It is not advisable to have red lines here.

9. Re-assign work to remove imbalance.
10. Select Sprint 1 – Backlog. Click the filter icon in the top left corner.
11. Set the filters for Work Item Type = Task and Assigned To = @Me. Results will show you the list of tasks that are assigned to you.
12. Select board.
13. Move some of the tasks that are assigned to you to Active. Set their Remaining hours within the card.
14. Close some of the tasks so that we will be able to view burndown on the next day.
- Kanban Board**
15. Select Product Backlog (Backlog Items) and Board tab under that. Discover that you can change the state of each items just by drag and drop from one column to another
16. You can Group by either Backlog items or persons

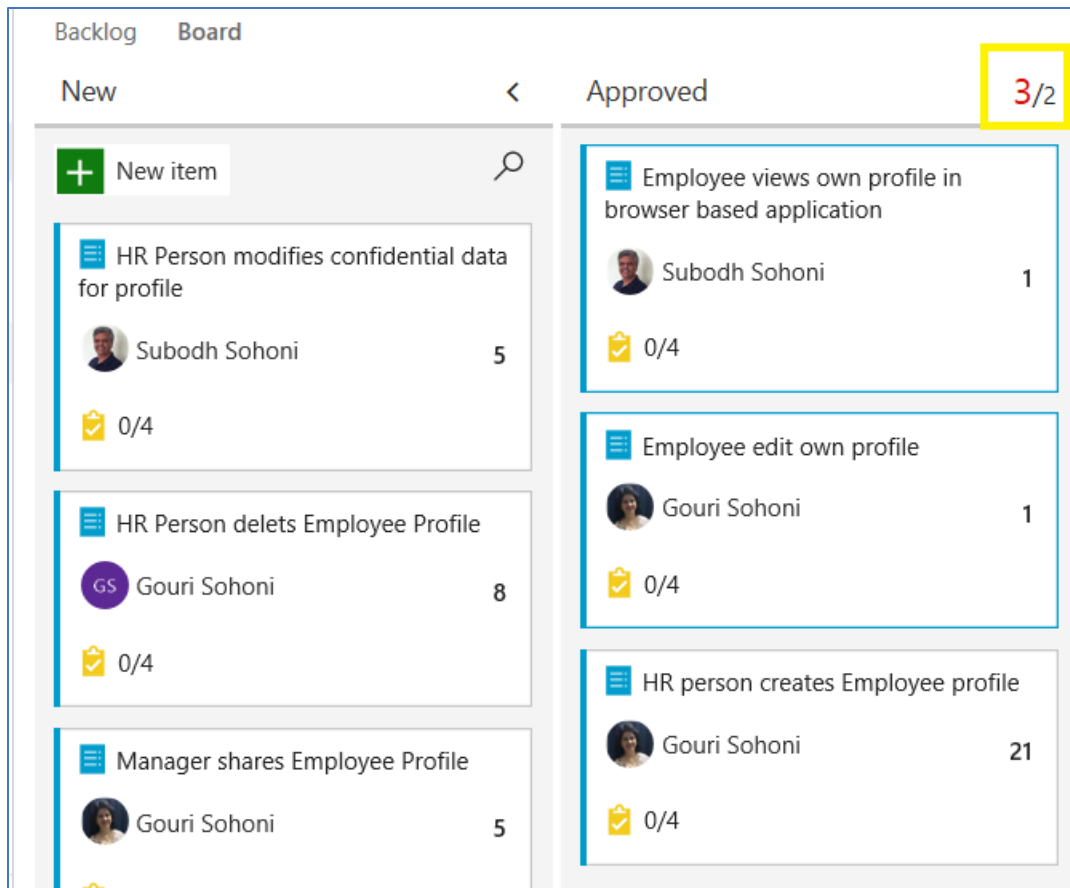


Observe that each state has a set limit for number of work items. Also, the state names are specified. We can change these by selecting the wheel icon for configure team settings



we can change the limit for Work items as well as add more columns

17. Let us set the limit for approve to 2 and add 3 work items to the list =. We see the data as follows



Observe the red color 3 appearing. This is just indication.

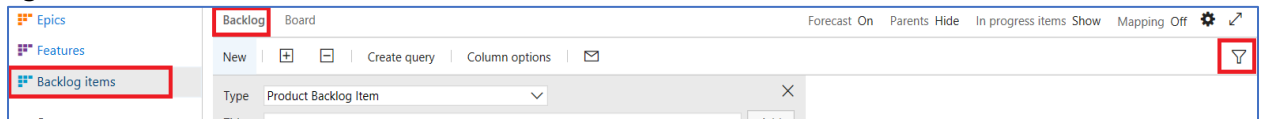
18. Explore remaining options for configuration

Exercise: Aggregation of field data in VSTS and Team Status

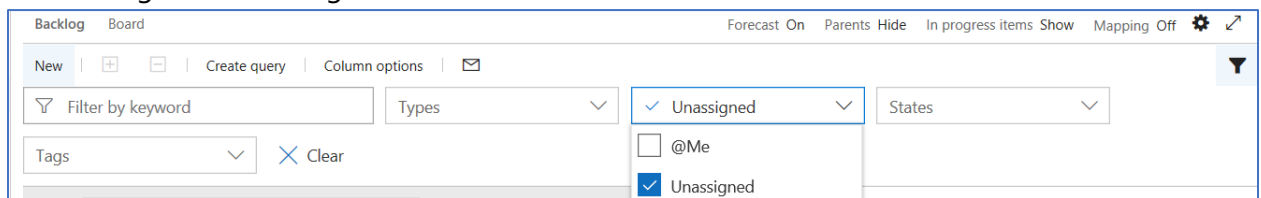
1. Add 2 PBIs in the Sprint 1 by drag and drop from product backlog.
2. Open the sprint backlog by clicking on the Sprint 1 node. Select the Backlog view if it is not already selected.
3. If Remaining Work column is not present, add that column to the view.
4. You will be able to see that the remaining work of all children tasks is rolled up and shown aggregated for the parent PBI.
5. Open the board view (Task board).
6. Move some tasks to other than New field.
7. You will see that aggregation of Remaining Work for tasks of each state is shown at the top of the column for that state.
8. When you collapse each row that is for the PBI, the aggregated value of remaining hours for that row (PBI) is also shown in the board view.
9. At the top of the Task Board, you will find a selector for "Group By" which by default is set to Stories. Change the selection to "People". You will see the rows change to assignees.

Exercise: Backlog view - User Stories not assigned to any team (PBIs)

1. Let us create a filter for this. Go to Backlog – Backlog items and click on Filter icon on the right-hand side



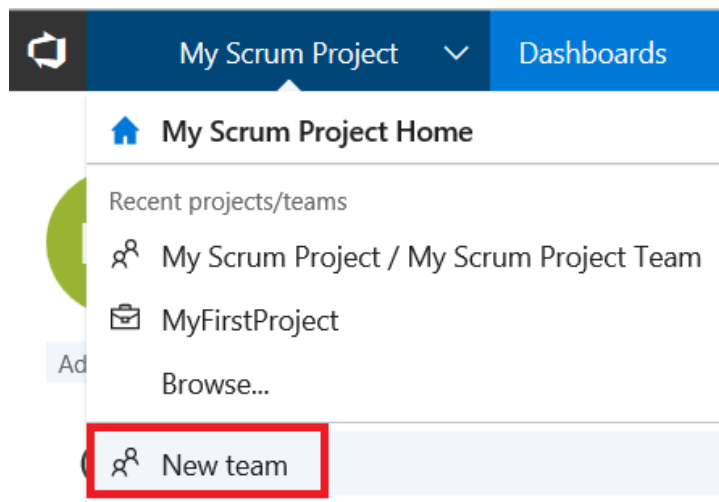
2. Select assigned to unassigned in the filter



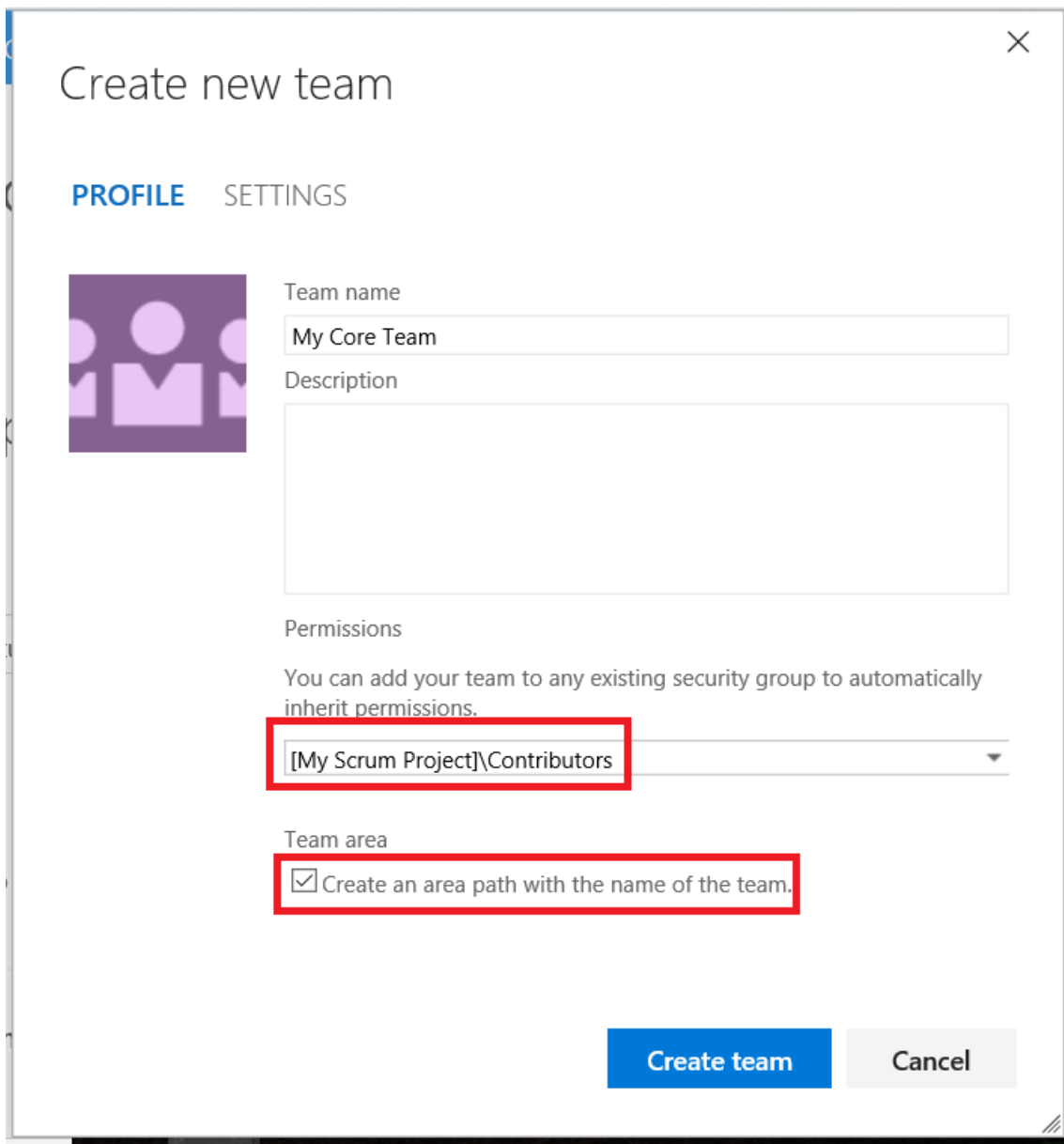
3. This will give result of all unassigned user stories (PBIs)

Exercise: Release Planning Board - List of Features that will be part of the release (Planning Extension)

1. Let us create a New Team



-
2. You can add the new team to the desired security group and create area path for the same name as team



Create new team

PROFILE SETTINGS

Team name
My Core Team

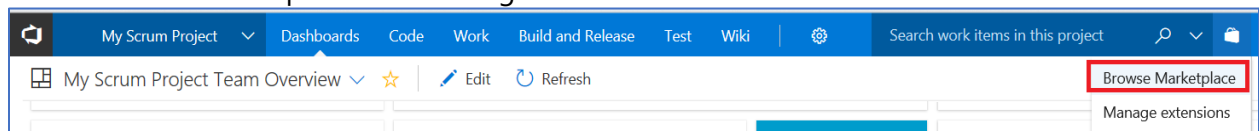
Description

Permissions
You can add your team to any existing security group to automatically inherit permissions.
[My Scrum Project]\Contributors

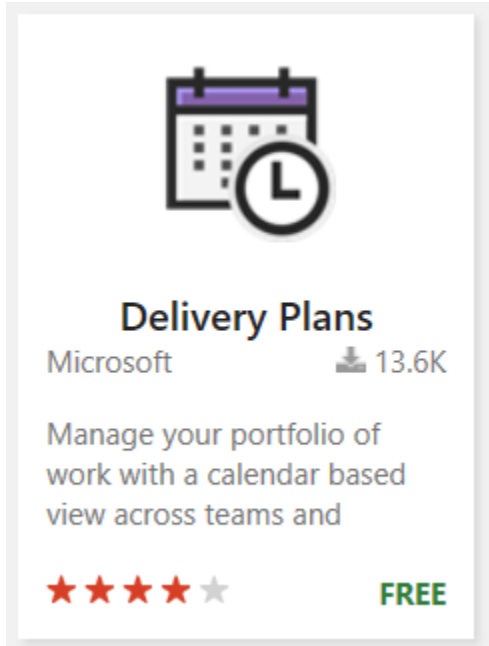
Team area
☒ Create an area path with the name of the team.

Create team Cancel

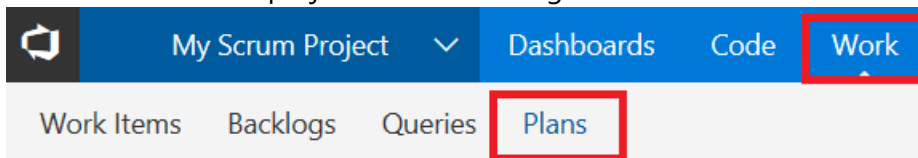
-
-
3. Let us add 1 team member to the Team
4. Go to Browse market place from the right-hand side corner icon



5. Search for Planning and you will see Delivery Plan



6. Select it, click on Get it free and Install it for the VSTS account. Click on Proceed to Account and select the team project we are working on. In Work one more tab for Plan is added



7. Click on New Plan and enter name

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 account. [Learn more](#)

Name *

Delivery Plan 1

Description

Add a description to make finding plans simpler and faster

Project *	Team *	Backlog *	
My Scrum Project	My Scrum Project Team	Features	✗
My Scrum Project	My Core Team	Backlog items	✗

+ 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

I have added Features level for first team and Backlog Items level for the second Team for the same project. This Plan can be across the projects as follows

Name *

Delivery Plan 1

Description

Add a description to make finding plans simpler and faster

Project *	Team *	Backlog *	
My Scrum Project	My Scrum Project Team	Features	✗
My Scrum Project	My Core Team	Backlog items	✗
MyFirstProject	MyFirstProject Team	Features	✗

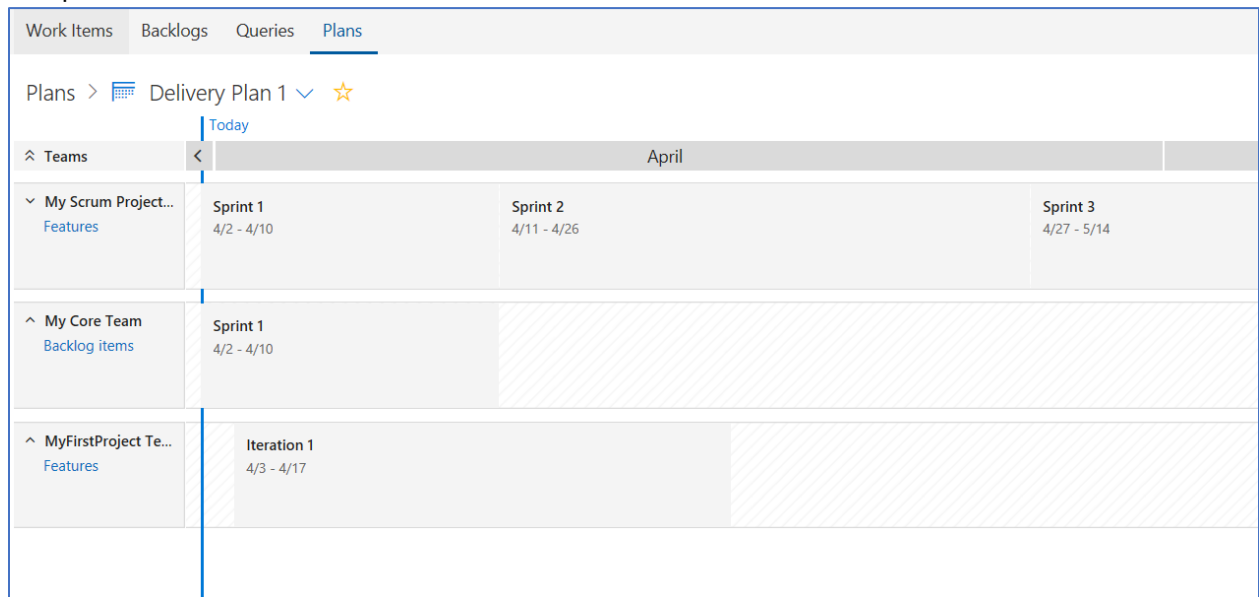
+ Add team

Field Criteria

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

It is imperative to set the dates for iteration in case you want to get them into the delivery plan

8. The plan view looks as follows



9. We can configure the settings. I have changed the level for first team to Backlog items and I get following plan

Settings

General

Overview

Teams

Field criteria

Markers

Cards

Fields

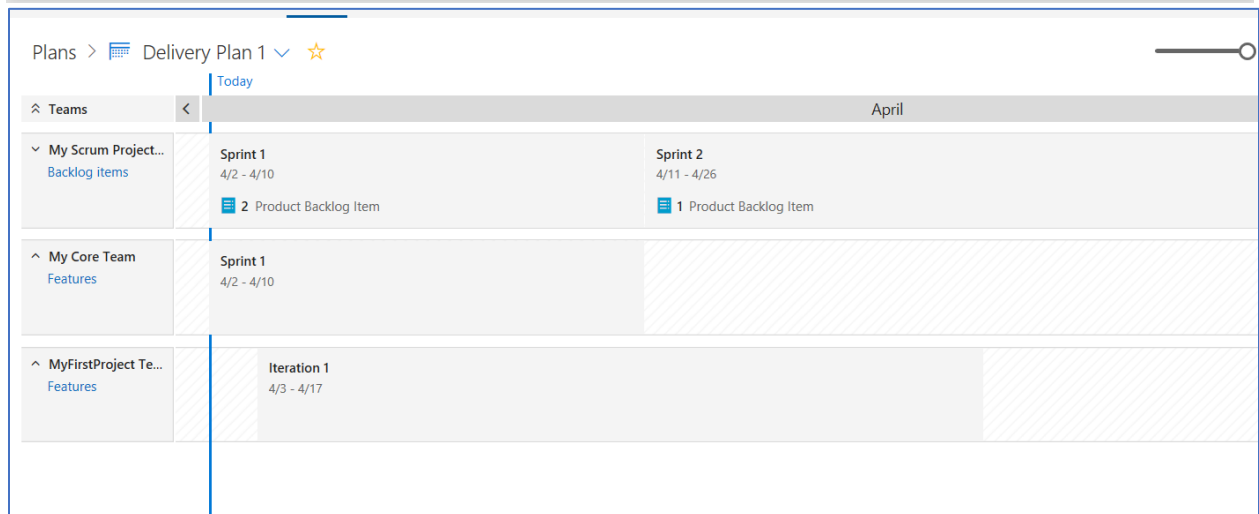
Configure teams

Add, edit or delete the teams for this plan. Drag teams up or down to re-order their position in the plan.

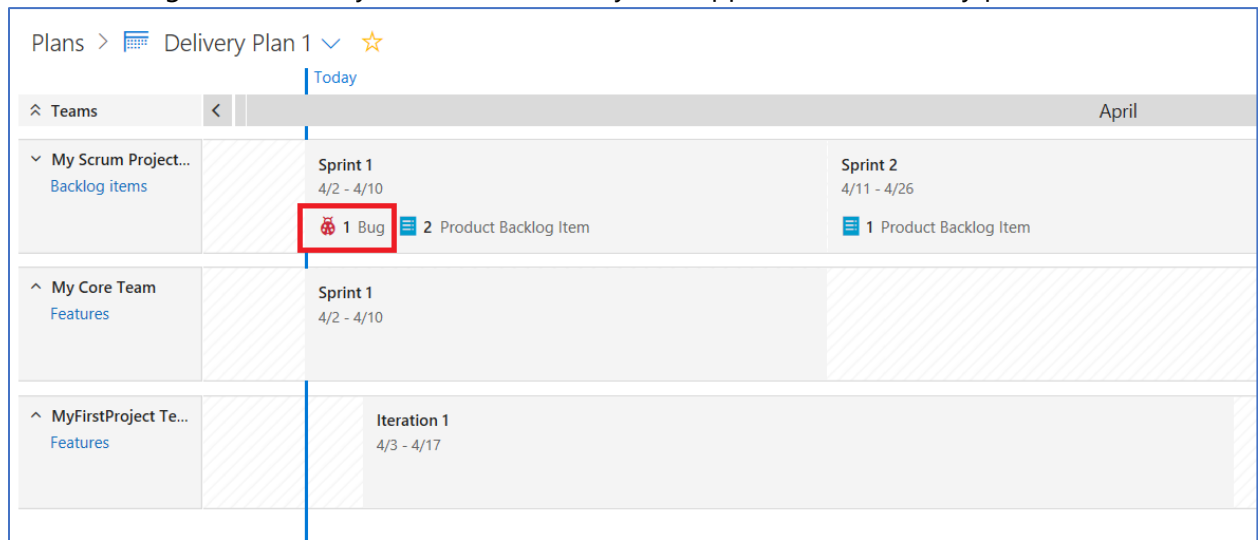
Project *	Team *	Backlog *	
My Scrum Project	My Scrum Project 1	Backlog items	✖
My Scrum Project	My Core Team	Features	✖
MyFirstProject	MyFirstProject Tear	Features	✖

+ Add team

SaveCancel



10. Once the bugs are created you will observe they also appear in the delivery plan.

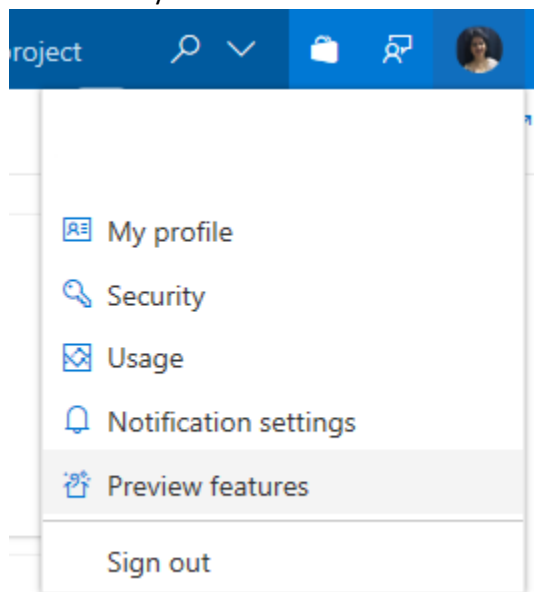


Analytics

11. We can extend this further by adding support to analytics dashboard by using analytics extension Use Analytics to get visibility across teams with Widgets based on Analytics Service

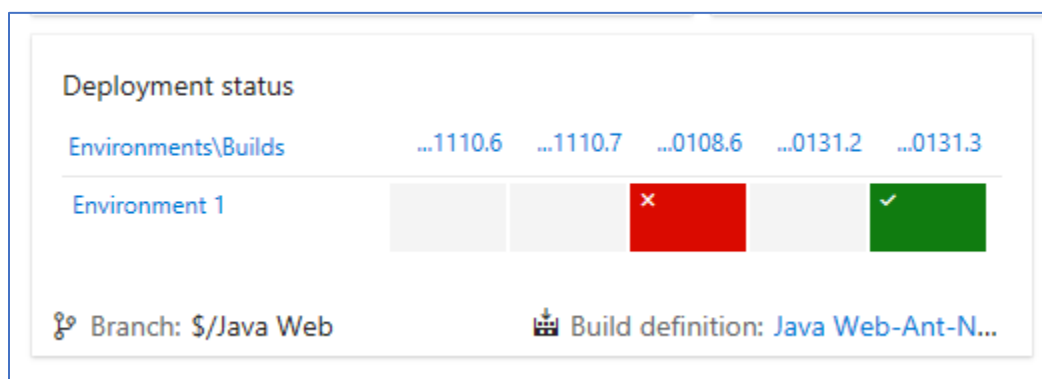
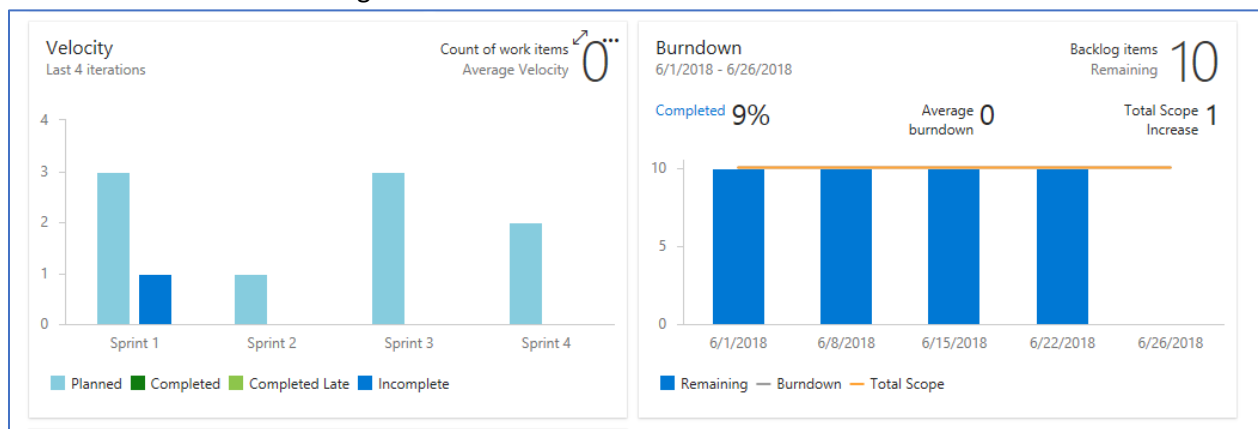
The screenshot shows the Visual Studio Marketplace page for the 'Analytics' extension. The page header includes the Visual Studio logo and 'Marketplace'. The breadcrumb navigation shows 'Visual Studio Team Services > Plan and track > Analytics'. The main content area features the 'Analytics' extension by Microsoft, with a download icon, '10,360 installs', a star rating of 4.5 (22 reviews), and a 'Free during preview' label. A green button labeled 'Get it free' is prominently displayed. The extension description states: 'Gain insights into the health and status of your Visual Studio Team Services projects.'

12. Ensure that you have enabled the new dashboard features, [Enable preview features](#)

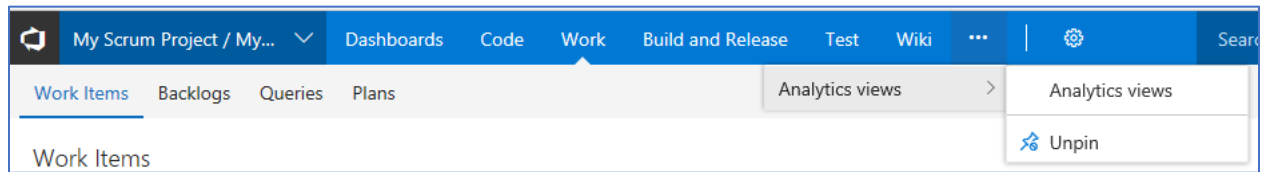


13. Once the extension is added you can add any of the following widgets to your Dashboard (Cumulative Stories, Lead, Cycle Time, Velocity, Burndown and Burnup)



14. I have added a few of the widgets



15. Analytics View automatically gets added with the extension





Exercise: Create Custom Process, add work items to project

1. Click on  icon at the left-hand corner and go to Home for VSTS account
2. Select Process from wheel icon 
3. Click on ellipse button and select Create Inherited Process and provide following details

Create inherited process from Scrum


Create a new inherited process to enable customizations.

 Scrum [system process]

 *

Description

this process template will help in creating a custom work item and some other features

[Learn more](#) 

Create process

Cancel

4. Click on Refresh to view the custom process

5. Create a new Scrum project for the custom process

Projects contain your source code, work items, automated builds and more.

Project name *

My Scrum Project ✓

Description

Version control

Git

Work item process

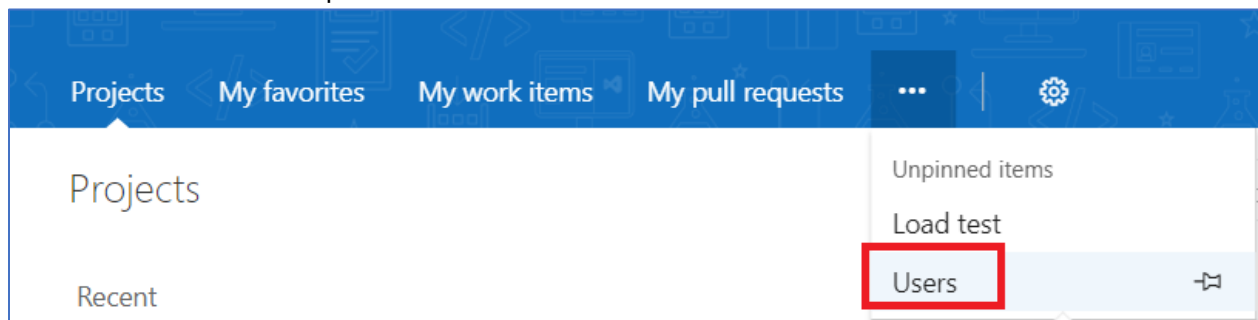
Custom Scrum Process

[Show description](#)

Create Cancel

Make sure that you have selected Git as Version Control.

6. Go back to Home for account
7. Select Users from the ellipse to add more users



8. Click on Add new users and add 3 more users.
9. Provide them access to the newly created project
10. Start Excel and connect to VSTS instance using Team tab
11. Select Input List to create a list of new work items
12. Add 3 levels of Tree so as to have Title1, Title2, Title3 and Title4 (These will be used for Epic – Feature – Product Backlog Item – Task)

13. Add 3 more columns Efforts, Business Value and Remaining Work so that the list looks as follows

ID	Title 1	Title 2	Title 3	Title 4	Effort	Business Valu	Remaining Wor	Work Item Typ	State	Reason	Assigned T
----	---------	---------	---------	---------	--------	---------------	---------------	---------------	-------	--------	------------

14. Copy the data from Sheet1 of Data.xlsx (You can cancel if any message is displayed)
15. Publish the work items so as to add them to the project
16. You can view all the work items by selecting Feature from Work – Backlogs and click on Parents: Show

The screenshot shows the Jira interface for a project named 'My Scrum Project'. The 'Work' tab is selected in the top navigation bar. Below it, the 'Backlogs' section is active, showing a list of 'Features' and 'Backlog items'. The 'Features' item is selected in the left sidebar. The main area displays the 'Product backlog' with a table of work items. The 'Parents: Show' button is highlighted in the top right corner of the backlog view.

Order	Work Item Type	Title
	Epic	▼ 🏰 Epic for EMS App
+	Feature	> 🏰 Feature for Web Application
	Feature	> 🏰 Feature for Windows Application
	Feature	> 🏰 Feature for Managerial Tasks

17. Assign the work items to different team members you have added.

Exercise: New Portfolio Item Creation

1. Let us add a custom work item
2. Select the Process tab and select the custom process template we have already created

The screenshot shows the Jira interface for a project named 'My Scrum Project'. The 'Process' tab is selected in the top navigation bar. Below it, the 'All processes' dropdown is open, showing 'Custom Scrum Process' selected. The 'Work item types' section is active, showing a '+ New work item type' button.

3. Click on + sign for New work item type


Create new work item type

Name *

Description


A custom work Item which will become Parent for Epic

Icon



Icon color

▼

[Learn more](#) 

Create

Cancel

4. Add a custom State after New as Proposed, add a rule which states that when the state is set to Proposed the assigned To fields should take the name of current user

Layout States **Rules**

+ New rule

StateChange

When state changes to "Proposed"

...

Name

Conditions ⓘ

When ☐ A work item state changes to ...

+ New condition

Actions ⓘ

Then ☐ Use the current user to set the value of ...

5. Create a new Portfolio and change the state to Proposed and find out if the current user gets assigned to the field
6. Add link as child to Epic

Exercise: Customize Backlog

1. Select Backlog levels tab from Process

Overview Settings Security Users **Process** Build and Release

All processes > Custom Scrum Process


Work item types **Backlog levels** Projects



2. Add a portfolio backlog as follows

Add portfolio backlog


The following fields are automatically added to all work item types on the Portfolio backlogs: Backlog Priority


Name

 Impediment


 

Work item types on this backlog level

☒  Portfolio

 New work item type

Default work item type


Portfolio 

Save

Cancel

Work item types




3. Go to Backlogs and you will see this message

 A new backlog level has been configured for this project. [Configure your backlog settings](#) to add it to your team's backlogs.


Add portfolio backlog


The following fields are automatically added to all work item types on the Portfolio backlogs: Backlog Priority

Name


  

Work item types on this backlog level

☒  Portfolio

 New work item type

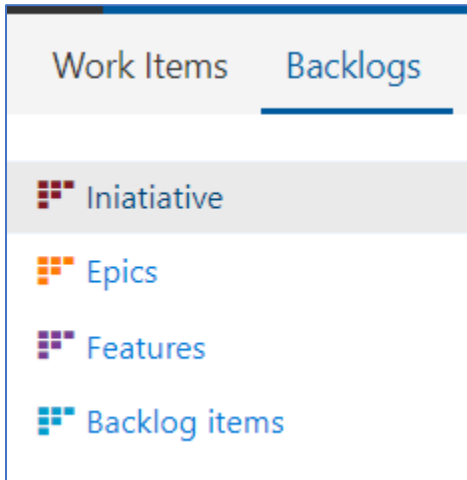
Default work item type



Save

Cancel

4. Click on Configure your backlog settings and select the required work item(s) and now the entries are shown as below



5. If we select Initiative tab we see following hierarchy

Order	Work Item Type	Title	State	Effort	Busin...	Value Area
1	Portfolio	P 1	Proposed			
	Epic	Epic for EMS App	New			Business
	Feature	Feature for Web Application	New			Business
	Product Backlog...	Employee views own profile in browser based a...	New	1	5	Business
	Task	Create design for Employee views profile	To Do			
	Task	Write code for Employee views profile	To Do			
	Task	Create test cases for Employee views profile	To Do			
	Task	Execute test cases for Employee views profile	To Do			
	Product Backlog...	Employee edit own profile	New	1	2	Business

6. Let us add one more Custom work item type named Ticket and add it to iteration backlog

Create new work item type

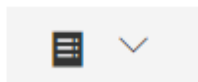
Name *

Ticket

Description

this work item type is used for maintenance projects

Icon



Icon color



[Learn more](#) 

Create

Cancel

Edit backlog level

The following fields are automatically added to all work item types on the Iteration backlog:
Activity, Backlog Priority, Remaining Work

Name

Tasks

Work item types on this backlog level

☐ Task

☒ Ticket

[+ New work item type](#)

Default work item type

Task

[Save](#) [Cancel](#)

7. Add a rule so that when the work item is created it automatically assigned to current user.

Exercise: Add a Dashboard Widget

This can be done just by adding required existing widgets to the Dashboard or creating a custom extension. Let us try both

1. Create 2 queries in Shared folder named All WIs and All Tasks and Tickets with respective work item
2. Go to Dashboard tab for the Team Project and select Edit



3. Click on Add Widget for 'Chart for Work Item' twice and click on Done Editing


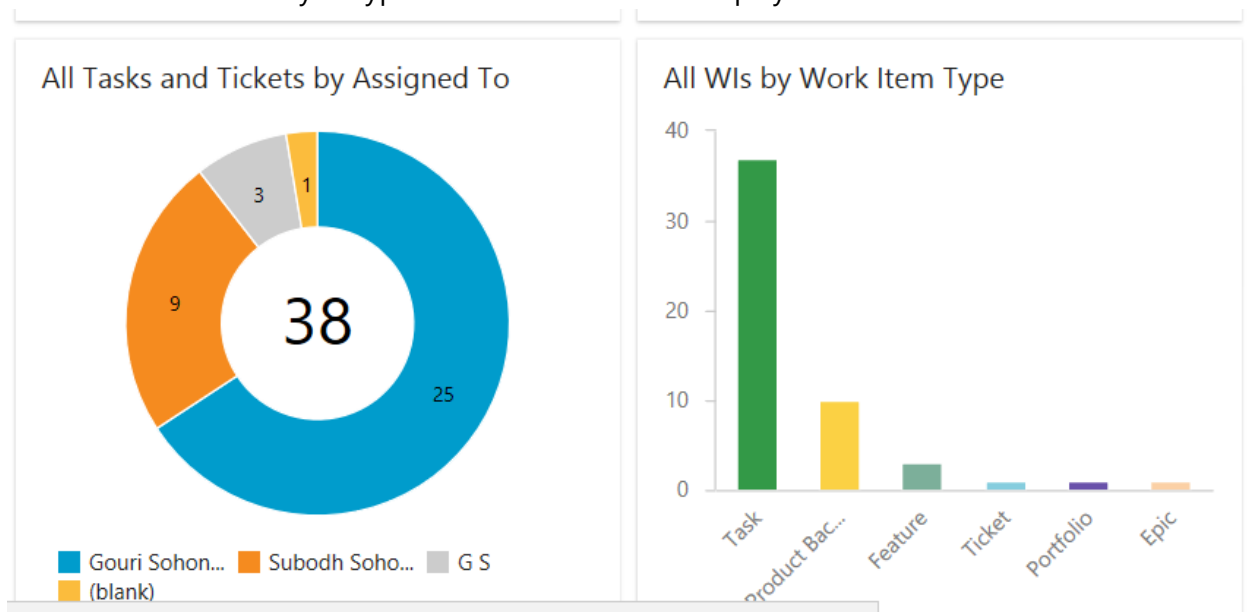


Chart for Work Items

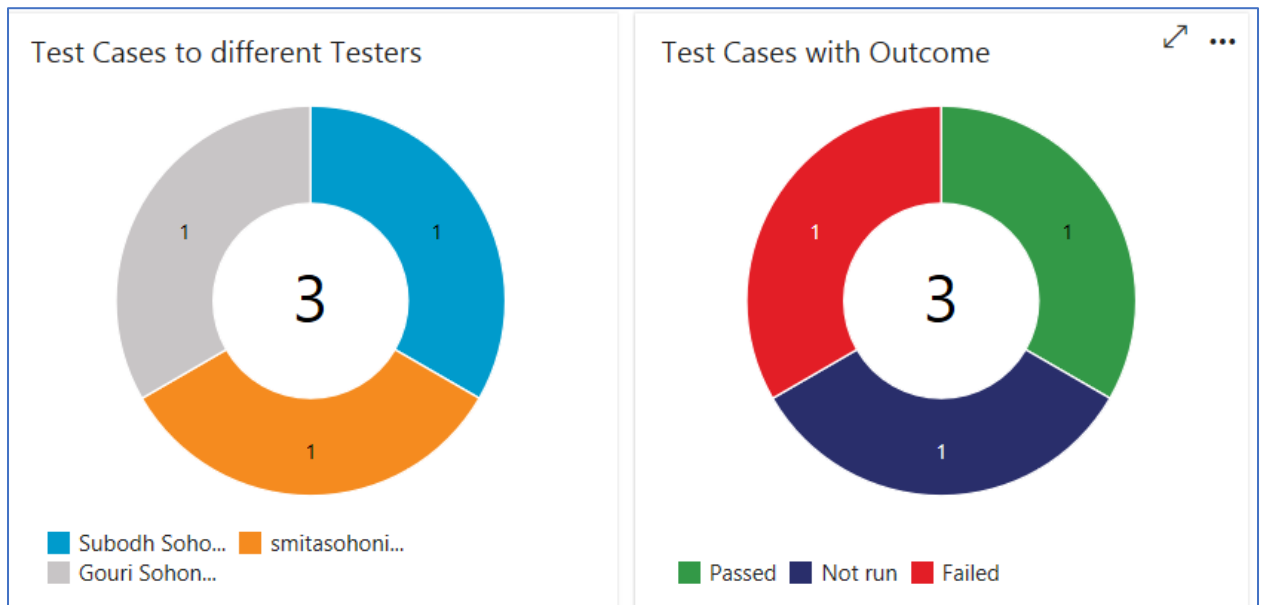
Visualize work items like bugs, user stories, and features using shared work item queries.

4. Select Configure for each widget and configure for the 2 queries we have created in step 1.
1. Choose the chart of your type and the result will be displayed as follows



5. First Pie chart shows all work items to whom they are assigned and the second one shows work items for each category

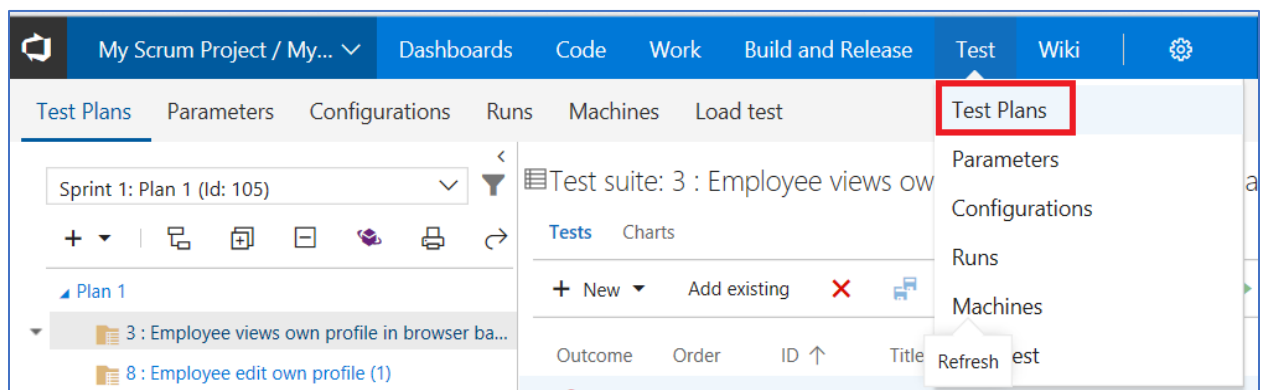
6. For more widgets you can add some data related to Test Plan, Test Suites, Test Cases. Create Test Plan related chart and add it.



Exercise: Manage Defects (Test and bug creation, exploratory testing, create test plan chart, bug related chart)

In this exercise we will discuss Test hub, exploratory testing with Chrome and how to create charts for tests.

1. Select Test Plans from Test hub



2. Add a new Test Plan for the default team and name it

3. Create a new requirement-based Test Suite, run query and select 2 PBIs as follows

CREATE REQUIREMENT-BASED SUITES

Type of query ☒ Flat list of work items Query across projects ☐

Filters for top level work items

	Field	Operator	Value
+ X	Work Item Type	In Group	Microsoft.RequirementCategory

[Run query](#)

ID	Work Item...	Title	Priority	Assigned To	Area Path
3	Product B...	Employee views own profile in browser based application	2	Subodh Sohoni	My Scrum Project
8	Product B...	Employee edit own profile	2	Gouri Sohoni	My Scrum Project
14	Product B...	HR person creates Employee profile	2	Gouri Sohoni	My Scrum Project

10 work items (2 selected)

[Create suites](#) [Cancel](#)

4. Click on Create suites
5. Click the first Suite and click on Tests – new Test Cases using grid
6. Open the Data.xlsx file and navigate to Sheet2
7. Copy the test cases with Title, Action and Expected result and paste for first 2 test cases

Plan 2			
3 : Employee views own profile in browser ba...			
8 : Employee edit own profile (1)			
ID	Title	Step Action	Step Expected Result
	Log in to SSGS site	Enter url https://ssgs-ems.azurewebsites.net	home page
		click on Login link	
		enter @Name	
		Enter @Password	
	change Employee's password	Enter url https://ssgs-ems.azurewebsites.net	home page
		click on Login	login screen displayed
		enter @Name	
		Enter @Password	
		click on Change password	
		Enter @New	
		Enter @confirm	password changed label shown

Save test cases

8. Add a new test case to second suite
9. Create a static Test Suite and name it Windows Functionality and add remaining 3 test cases to it
10. Select a plan and you can view the test cases in it right click on any of the test cases and you can view Run test as well as Run with Options. Select Run test and you can view that the test

case is shown in the left-hand side with all the test steps

The screenshot displays the Microsoft Test Runner interface. On the left, a list of test steps for 'Test 1 of 1: Iteration 1' is shown. Step 125 is 'Log in to SSGS site'. The steps are as follows:


1. Enter url `https://ssgs-ems.azurewebsites.net`
EXPECTED RESULT: home page
2. click on Login link
3. enter @Name
Name = shalaka
4. Enter @Password
Password = shalaka
5. Click on Login button
EXPECTED RESULT: Login successful
6. Click on Get Basic Data
EXPECTED RESULT: basic data displayed
7. Click on Get Extended Data
EXPECTED RESULT: Extended data shown
8. click on Log Out
EXPECTED RESULT: employee logged out

On the right, the 'Test suite: 3 : Employee views own profile in browser ba' is shown. Below it, a table lists the test results:

Outcome	Order	ID ↑	Title
Failed	1	111	Employee logs in
Active	2	112	Employee changes password
In pro...	3	125	Log in to SSGS site
Active	4	126	change Employee's password

11. Execute each step and pass after successful execution. The test will be displayed as passed later

12. Start Chrome, login to VSTS account go to marketplace and search for Test & feedback manager. (this is available for Chrome and Firefox). Install and add to chrome



Test & Feedback

offered by Microsoft Corporation

★★★★★ (132) | [Productivity](#) | 47,819 users

[+ ADD TO CHROME](#)

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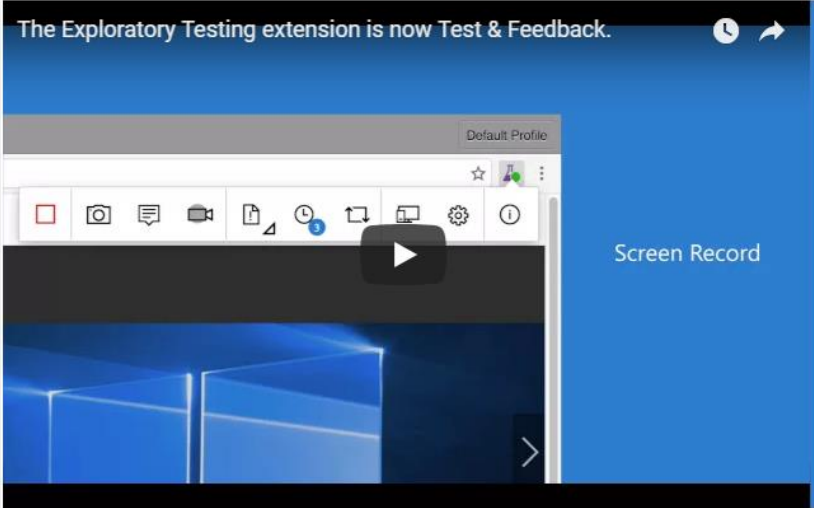
OVERVIEW

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The Exploratory Testing extension is now Test & Feedback.



Compatible with your device

Now everyone on the team can own quality. Capture findings, create issues, and collaborate with the team, directly from the browser.

Test & Feedback - Now everyone on the team can own quality. Capture findings, create issues, and collaborate with the team, directly from the browser.

Everyone in the team, be it product owners, developers, testers, UX designers etc., can now test their web-apps and give feedback, all directly from the browser on any platform: Windows, Mac, or Linux. All kinds

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Additional Information

Version: 1.0.127.0

Updated: December 26, 2017

Size: 1.74MiB

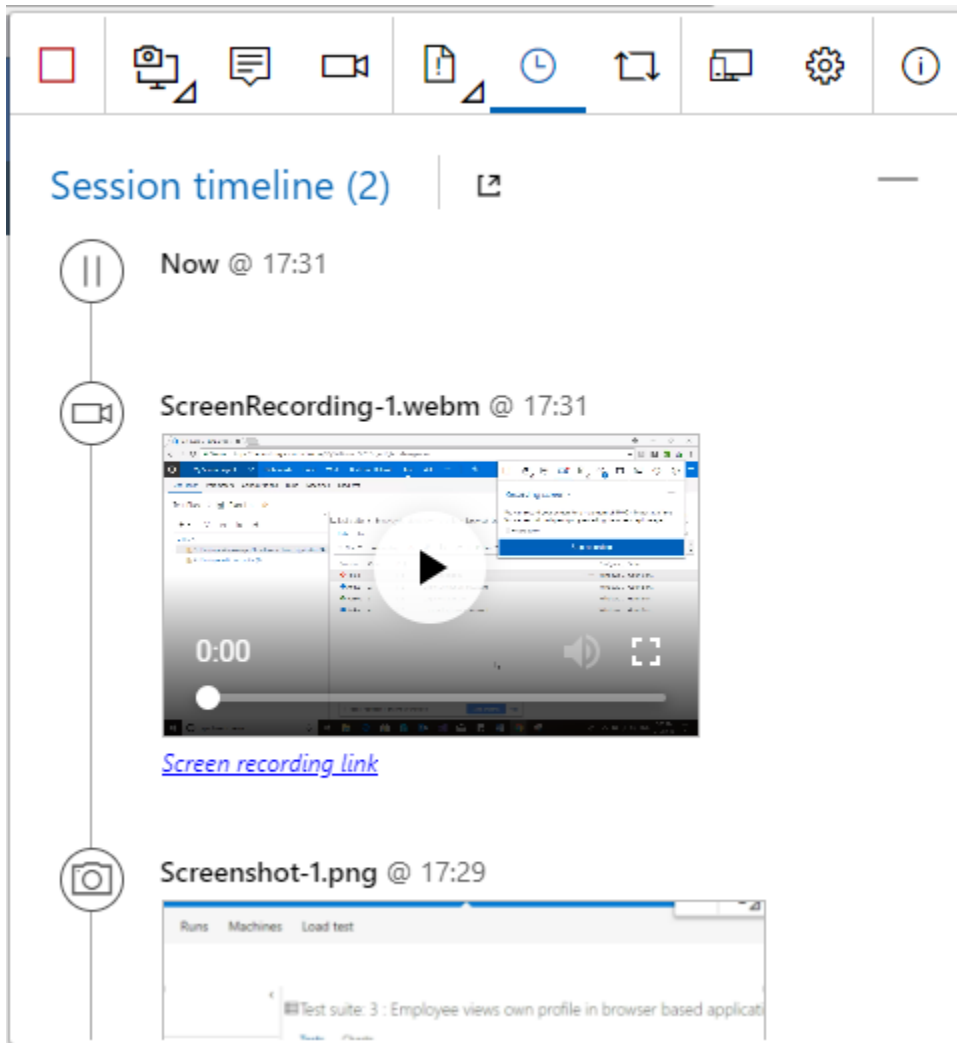
Language: English (United States)

13. Click on gear icon to configure the extension (keep connected selected), provide the url and click on next. Select the project name and team name and click on Save

The screenshot shows the 'Connection settings' dialog in Visual Studio Code. At the top, there's a toolbar with icons for play, folder, chat, video, file, clock, refresh, settings (gear), and help (i). The 'Connection settings' title is in blue. Below it, there are two radio buttons: 'Connected' (selected) and 'Standalone'. The 'Server URL' field is labeled 'Server URL' and has a 'Disconnect' link to its right. The URL entered is 'https://demovststrg.visualstudio.com/' with a green checkmark icon. Below this is the 'Select your team' section with a 'Refresh' link. It features a search bar with the placeholder 'Search...'. A tree view shows the following structure: 'DemoVSTSTrg' (expanded) contains 'My Scrum Project' (expanded) which contains 'My Core Team' and 'My Scrum Project Team' (highlighted in blue). Below this, 'MyFirstProject' and 'Scrum Custom' are partially visible. At the bottom, the path 'DemoVSTSTrg/My Scrum Project/My Scrum Project Team' is displayed. A large blue 'Save' button is at the very bottom.

14. Now you can start session, explore application, take screenshots, record upto 10 minutes with audio, add notes, create workitems for bug or task

15. The timeline can be seen



16. Create a bug and you will automatically get screenshots added

New bug *

Bug with exploratory testing | 1 Similar

Include: ☒ Image action log ☒ Page load data

0:00

[Screen recording link](#)

<http://ssgs-ems.azurewebsites.net/ShowEmpl...>

@5:31:17 PM

39 ms.

PreRequest Latency Response DomLoading DomComplete Load

Save

stop the session and view the newly created bug. You can click on Runs tab to view the session

17. We can also select any test case and click on Do Exploratory Testing by right clicking on it. In this case the exploratory session will be linked to test case

18. We can create charts related to test plan

