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Azure DevOps

Azure DevOps with Scrum

Hans-Petter Halvorsen



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 - What is Azure DevOps?
 - What is Scrum?
- Getting Started with Azure DevOps
 - Create Project and Add Members
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Introduction



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Hans-Petter Halvorsen

Azure DevOps

- Azure DevOps is tool for Software Engineering
 - Planning, Collaboration, Source Code Control, Bug Tracking, Agile and Scrum, etc.
- Developed by Microsoft.
- <https://dev.azure.com>
- Free for 5 Developers + Stakeholders.
- You use it in your web browser, and it also has integration with Visual Studio for Source Code Control and Git.

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Scrum

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Scrum

- The traditional way of organize and work in a project is the so-called “**Waterfall**” method or in general “**Plan-driven**” methods.
- **Agile** is a newer and more flexible way to organize and run a project.
- **Scrum** is one of the most poplar Agile methods today.
- **Azure DevOps** has built-in functionality for working with Scrum in a development project.

Scrum Overview



Stakeholders



Product Backlog



Product Owner



Scrum Master

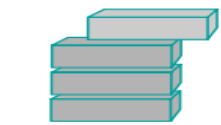


Development Team

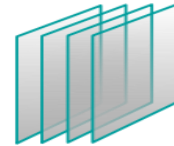
3-9 persons

Scrum Process:

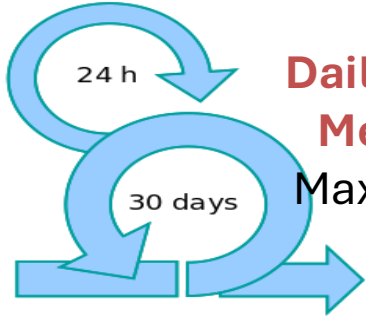
Sprint Planning Meeting



Product Backlog



Sprint Backlog



Daily Scrum Meetings
Max 15 min.

Sprint

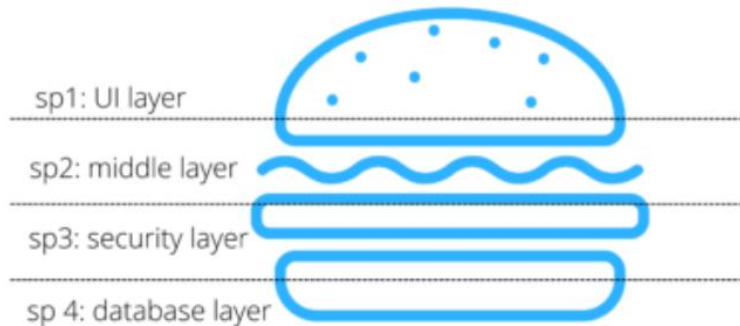
Working increment of the software

Sprint Review Meeting

Plan-driven vs Agile

Would you rather eat layers (left image) or slices (right image) of a burger?

Send HTML emails that can contain images and attachments



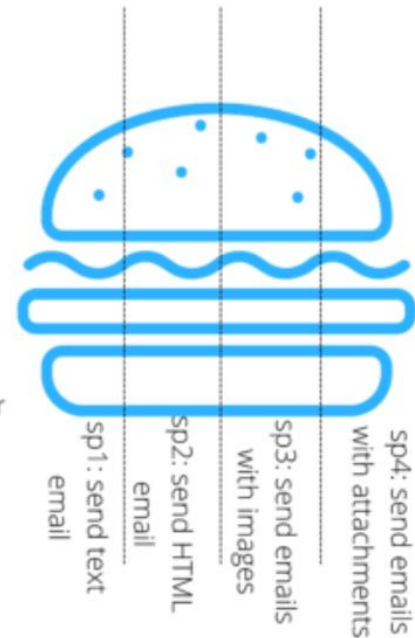
(Plan-driven/Waterfall)

UI layer

middle layer

security layer

database layer



(Agile)

Important Agile principle: Working software, documents and product at all times, which is illustrated with the hamburger to the right. In that way you can get a taste of the software early in the development and during the development and before the entire software is finished.

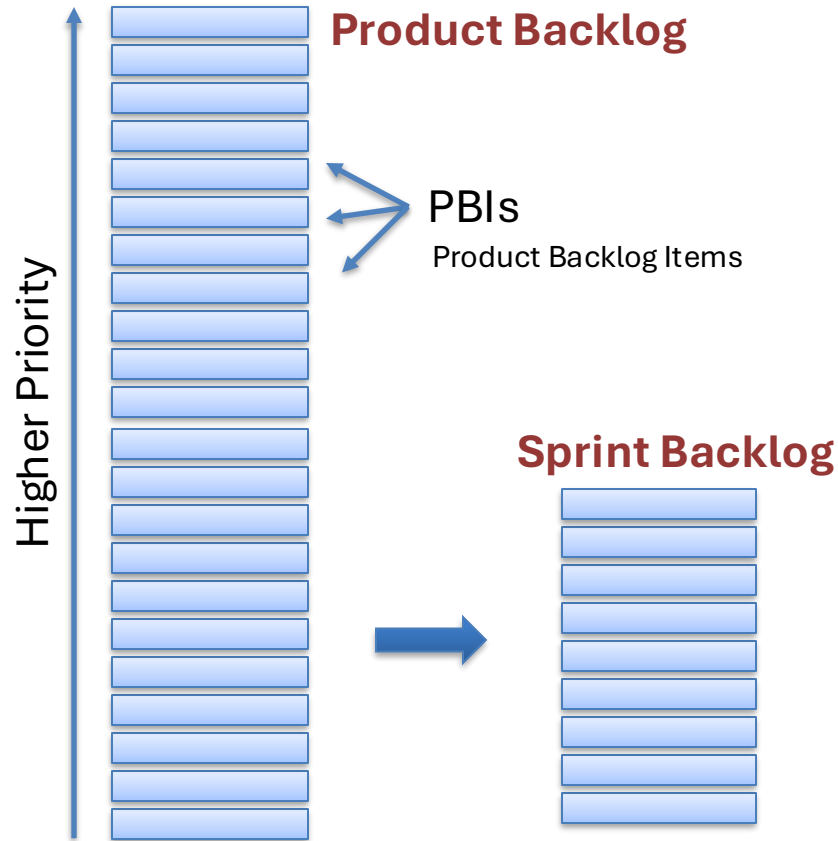
Product Backlog

- The Scrum **Product Backlog** is simply a list of all things that needs to be done within the project.
- It replaces or complements the traditional requirements specification.
- So basically, **The Product Backlog is a List of all the Requirements** for a given Software System that shall be developed by the Development Team.
- A **Product Backlog Item (PBI)** is a single item/requirement in the Product Backlog.
- You can choose to group the Product Backlog Items (PBIs) using **“Features”**. “Features” will then be a level above the PBIs.
 - This is recommended because there can be many PBIs i development project (many hundred)

Scrum and Sprints

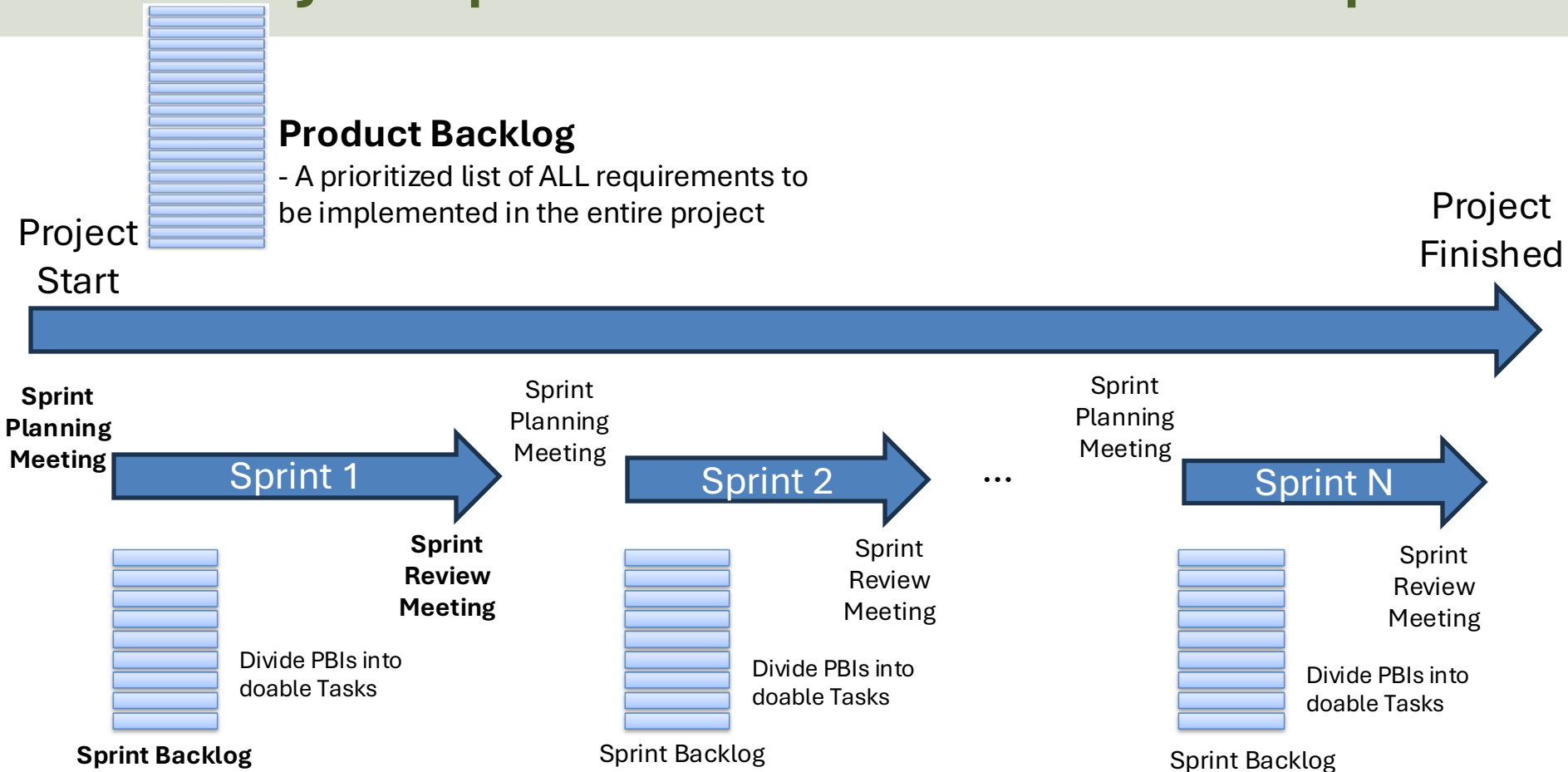
- In **Agile** you work in iterations or **Sprints** as it is called in Scrum.
- **A Sprint can typically be 1-4 weeks.**
- During the Sprint you use a **Taskboard** to keep track of your work.
- Then during the Sprint, you should move the Tasks from “**To Do**” to “**In Progress**” and then finally to “**Done**”.
- When the Sprint is finish, the hopefully all the Tasks should be in the “Done” column.
- During the Sprint you have different Meetings, such as “**Sprint Planning Meeting**”, “**Daily Scrum Meetings**” (also called “Standup Meetings) and “**Sprint Review Meeting**”.

Product Backlog and Sprint Backlog



- **Product Backlog:** The Product Backlog is an ordered list of everything that might be needed in the product and is the single source of requirements for any changes to be made to the product.
- **Sprint Backlog:** The Sprint Backlog is the set of Product Backlog items selected for the specific Sprint that shall be executed

The Project period is divided into Sprints

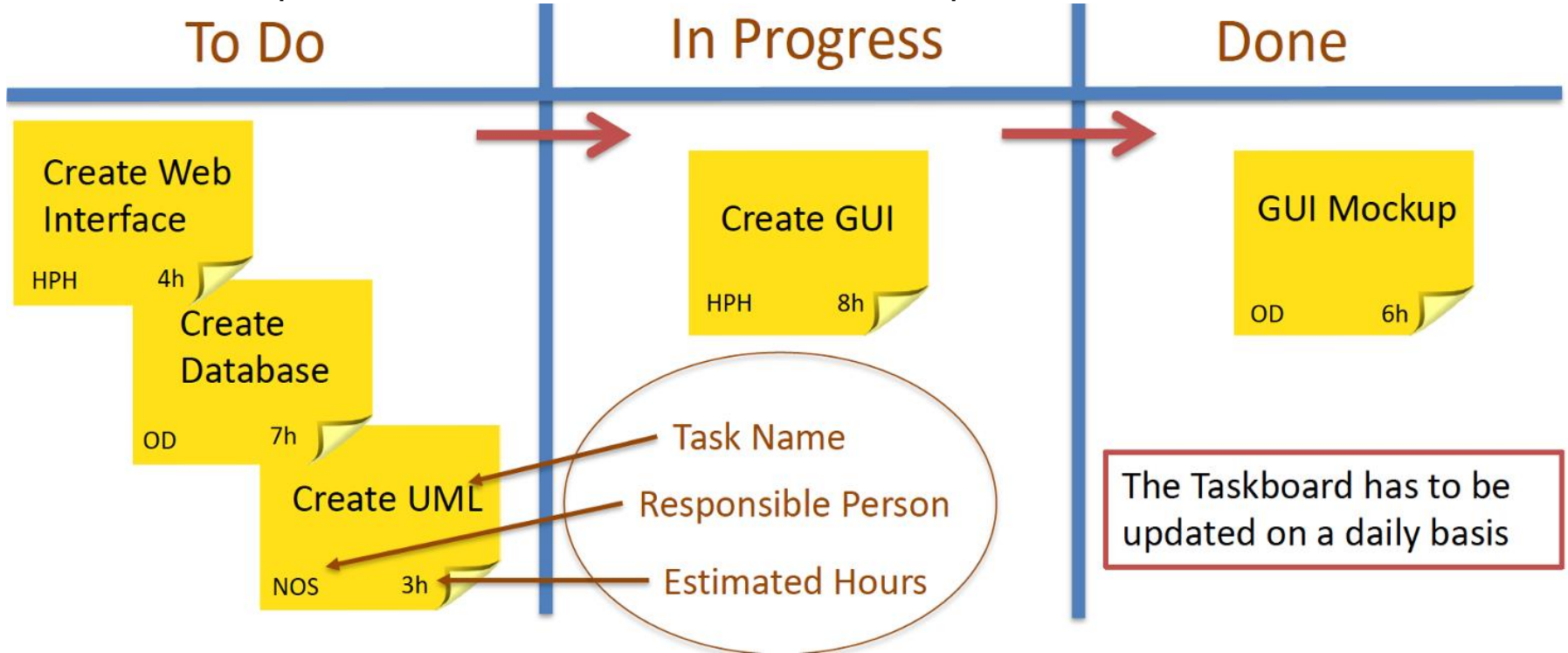


Sprint Planning

- Have a “**Sprint Planning Meeting**” within the Team.
- Move selected Items from the “**Product Backlog**” to the “**Sprint Backlog**”.
- Create multiple Tasks for each PBI in the Sprint Backlog.
 - A **PBI** is a specific requirement for your system and should be understandable by the customer.
 - A **Task** is details how the developers are solving/implementing that specific PBI, so each PBI typically must be broken down into multiple Tasks. Tasks are typically only understandable for the development team.
- Both the “Product Backlog” and the “Sprint Backlog” should be created in **Azure DevOps**.

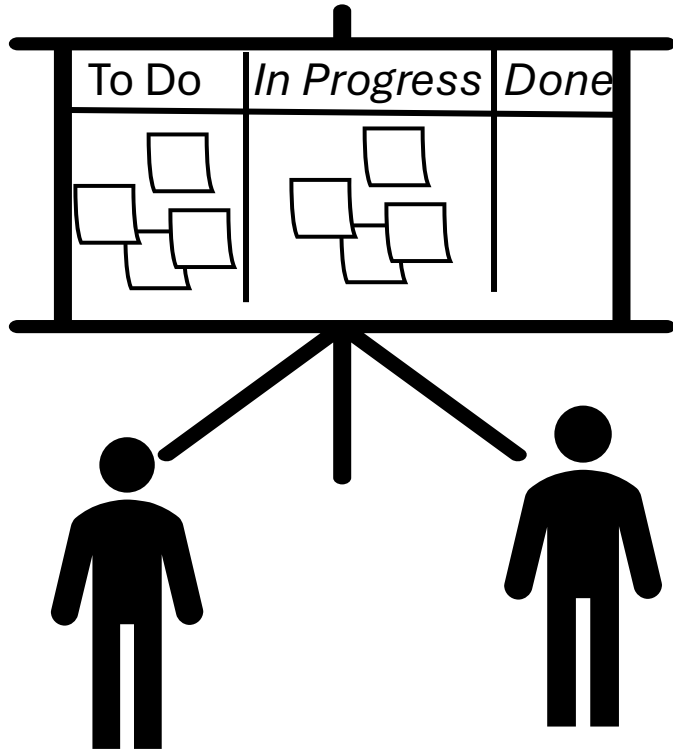
Taskboard

The Product Backlog Items that has been selected for the specific Sprint (Sprint Backlog items) must be broken down in manageable Tasks by the Development Team. These Tasks are then put on the Taskboard for the current Sprint.



Daily Scrum Meetings

The Daily Scrum Meeting is a short status meeting where the team members stand around the Taskboard. The purpose with the Daily Scrum Meeting is to track progress and synchronize activities and create a plan for next 24 hours.



3 Questions are answered by each team member in the meeting:

1. What did you do yesterday?
2. What shall you do today?
3. Any Problems?

Best practice

- **Assign only 1 Person to a Task.**
 - If there are more than one person there will be none in charge of the Task and it will most likely not be done at all
 - Then better to divide into multiple Tasks, one for Person A and another Task for Person B
- Better to **Create many small Tasks** than a few large Tasks
 - Example “Update Report” is NOT a good Task, will it take a week or a month? and what shall be done?
 - Example “Update Chapter 2.3 with Results from the Simulations” is much more specific and time limited Task
- Create Tasks that has a **Max duration of 8 hours**
- **Work in Iteration/Sprints that last 1-4 week**, this means you come together in a Meeting (**Sprint Planning Meeting**) and setup all the necessary Tasks for the current iteration/Sprint.
 - Make sure to create enough Tasks for the entire Iteration/Sprint for all members.
- **Update Tasks when working**
 - Make sure to immediately update your Task from “Not started“ to “In progress” when you start working on that specific Task.
 - Make sure to immediately update your Task from “In progress” to “Completed” when you are finished with that specific Task.
- Make sure to have a **Scrum Master** (informal Project Manager) that keep track of all the Tasks and have an overall control of the situation and status
- When the Sprint is finished you need to have a **Sprint Review Meeting** where you go through in detail all that has been done in that Sprint.

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Getting Started with Azure DevOps

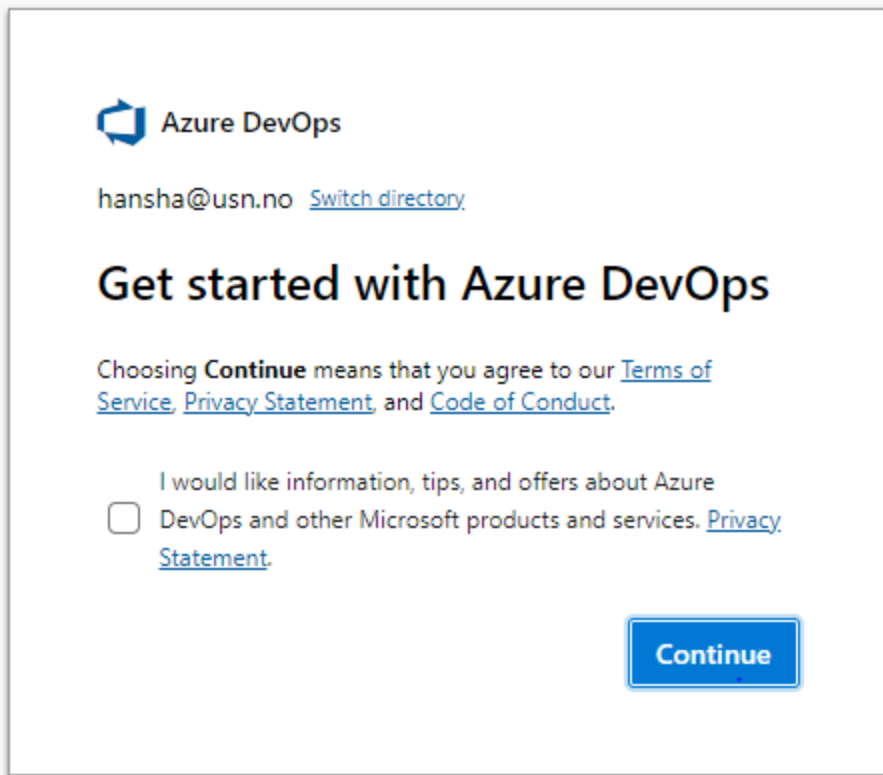


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Getting Started with Azure DevOps

First, you need to Create a New **Organization**



Azure DevOps

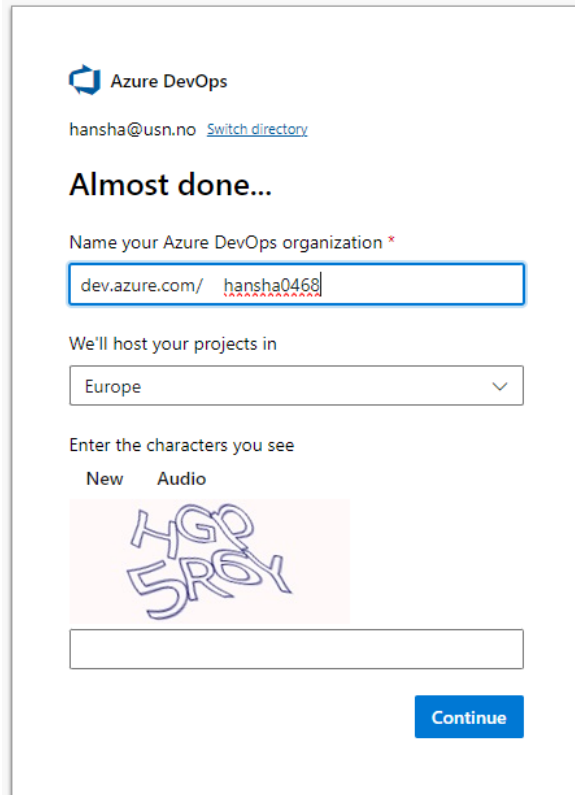
hansha@usn.no [Switch directory](#)

Get started with Azure DevOps

Choosing **Continue** means that you agree to our [Terms of Service](#), [Privacy Statement](#), and [Code of Conduct](#).

I would like information, tips, and offers about Azure DevOps and other Microsoft products and services. [Privacy Statement](#).

Continue



Azure DevOps

hansha@usn.no [Switch directory](#)

Almost done...

Name your Azure DevOps organization *


dev.azure.com/

We'll host your projects in

Europe

Enter the characters you see

New Audio



Continue

Create New Project

Create new project



Project name *

SoftwareHPH

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.

Public projects are disabled for your organization. You can turn on public visibility with [organization policies](#).

Advanced

Version control ?

Git

Work item process ?

Scrum



Cancel

Create

Select a meaningful Project name

Make sure to select “Advanced”:
Version control = **Git**
Work item process: **Scrum**

Project Start Page

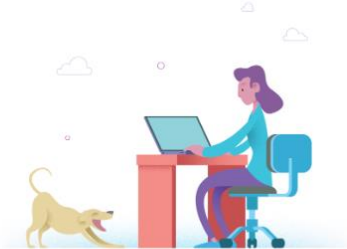
Azure DevOps usn24 / ProjectHPH / Overview / Summary

Search

ProjectHPH

Private Invite

Project stats



Welcome to the project!

What service would you like to start with?


Boards Repos Pipelines Test Plans

Artifacts

[or manage your services](#)

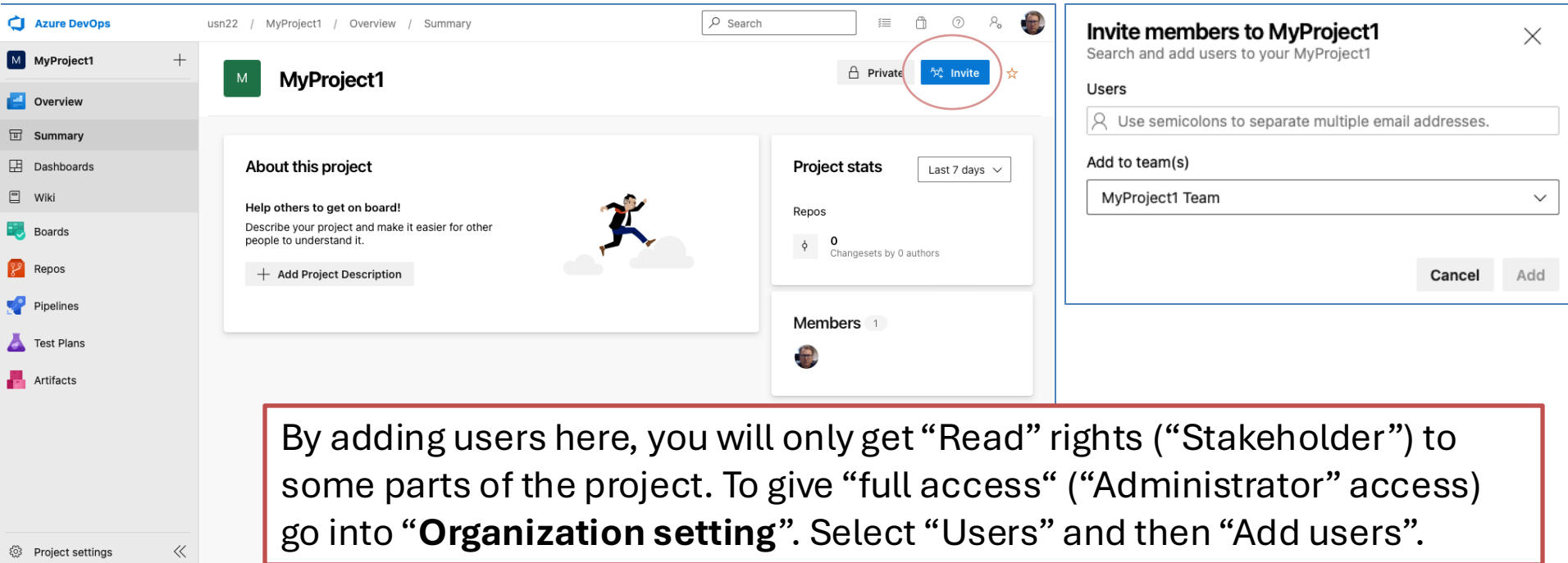
No stats are available at this moment
Setup a service to see project activity.

Members 1



Project settings

Invite/Add Members



The screenshot displays the Azure DevOps interface for a project named 'MyProject1'. The left sidebar shows navigation options like Overview, Summary, Dashboards, Wiki, Boards, Repos, Pipelines, Test Plans, and Artifacts. The main content area includes 'About this project', 'Project stats' (0 changesets by 0 authors), and 'Members' (1 member). A red circle highlights the 'Invite' button in the top right corner. A modal window titled 'Invite members to MyProject1' is open on the right, showing a search field for users, a dropdown for 'Add to team(s)' (set to 'MyProject1 Team'), and 'Cancel' and 'Add' buttons.

By adding users here, you will only get “Read” rights (“Stakeholder”) to some parts of the project. To give “full access“ (“Administrator” access) go into “**Organization setting**”. Select “Users” and then “Add users”.

Give Users “Full Access” in Organization Settings

To get full access (“Administrator” access) go into “**Organization setting**”. Select “Users” and then “Add users”. Then Access level = Basic and the proper Project.

The screenshot shows the Azure DevOps interface. On the left, the 'Organization Settings' menu is open, with 'Users' selected. The main area shows the 'Add new users' dialog. The 'Access level' dropdown is set to 'Basic', and the 'Add to projects' field contains 'ProjectHPH'. The 'Send email invites' checkbox is checked. The 'Add users' button is circled in blue. Annotations include a red box around the 'Organization Settings' menu, a red box around the 'Add new users' dialog, and a blue arrow pointing from the 'Add users' button to the 'Access level' dropdown.

Organization Settings (255721) / Settings / Users

Users

All users Group rules

Filter users

Total 4

<input type="checkbox"/>	Name ↑	Last Accessed
<input type="checkbox"/>	Hans-Petter Halvorsen hans.p.halvorsen@usn.no	5.9.2024
<input type="checkbox"/>	HT Hakon Andre Iveltan	5.9.2024
<input type="checkbox"/>	JS Johannes Skarabekk	4.9.2024
<input type="checkbox"/>	KN Kim Mangard Norborg	5.9.2024

Add new users

Required fields are marked with an asterisk

Users or Service Principals *

Users or Service Principals

Summary **Add users**

Access level: **Basic**

Add to projects: ProjectHPH

Azure DevOps Groups: Project Contributors

Send email invites (to Users only)

Microsoft Entra User Type: Microsoft Entra User Type

Make sure to select “Basic”

Select Project(s)

Make sure to select “Send email ..” as well

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Scrum in Azure DevOps



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Scrum in Azure DevOps

Create new project

Project name *

SoftwareHPH

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.

Public projects are disabled for your organization. You can turn on public visibility with [organization policies](#).

Advanced

Version control ⓘ

Git

Work item process ⓘ

Scrum



Cancel

Create

The screenshot shows the Azure DevOps interface. The navigation menu on the left is highlighted with a red rounded rectangle, showing the following items: Overview, Boards, Work items (selected), Boards, Backlogs, Sprints, Queries, Delivery Plans, and Analytics views. Below the navigation menu, there are sections for Repos, Pipelines, Test Plans, and Artifacts. The main content area on the right shows the 'Work items' section, which includes a notification about the new boards hub preview, a 'Recently updated' filter, and a 'Filter by keyword' input field. At the bottom right, there is a 'Find recently' section with a circular arrow icon and a link to 'Learn more'.

Find recently

View items that have

[Learn more](#)

Work Items

usn22 / MyProject1 / Boards / Work items

Search

Work items

Recently updated ▾ + New Work Item ▾ → Open in Queries 🔗 Column Options ⋮

ID	Title	Assigned To	State	Area Path
34	Sen	Unassigned	New	MyProject1
33	Sea	Unassigned	New	MyProject1
32	Sho	Unassigned	New	MyProject1

- Bug
- Epic
- Feature
- Impediment
- Product Backlog Item
- Task
- Test Case

Project settings <<

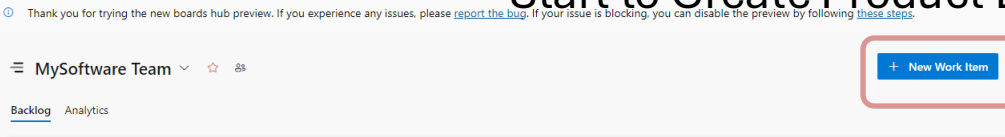
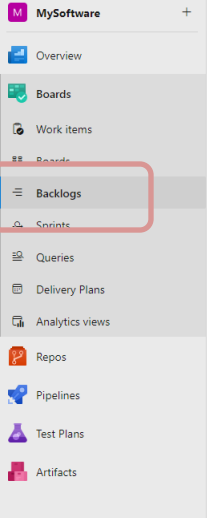
3 important Work Item Types related to Product Backlog

- **Product Backlog Item (PBI)**
- **Feature** – Can be used to group PBIs that belong together
- **Task** – Divide a PBI into doable Tasks. Each PBI needs to be broken down into a set of Tasks. A Task is something that should be done by the developer

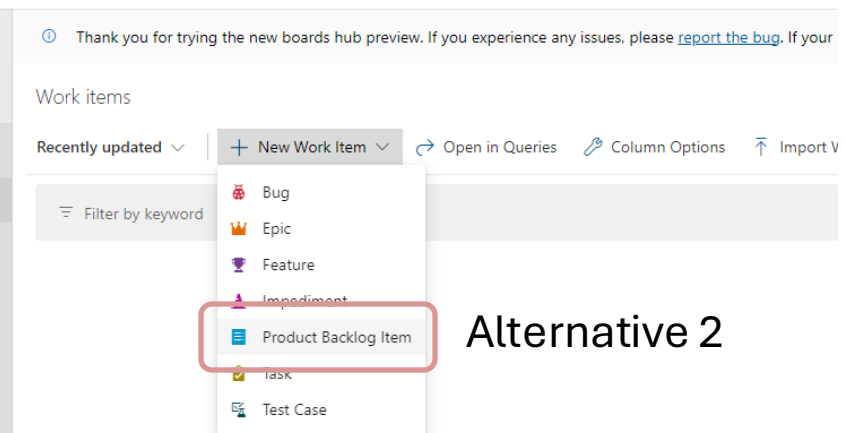
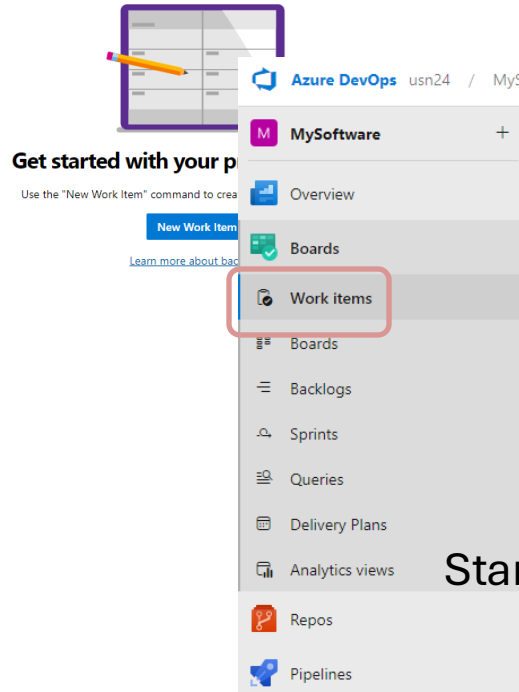
Product Backlog

Azure DevOps usn24 / MySoftware / Boards / Backlogs

Start to Create Product Backlog Items



Alternative 1



Alternative 2

Start to Create Product Backlog Items

Create Product Backlog Items

Azure DevOps usn24 / MySoftware / Boards / Work items

Thank you for trying the new boards hub preview. If you experience any issues, please [report the bug](#). If your issue is blocking, you can disable the preview by following [these steps](#).

Work Items [Back to Work Items](#)

NEW PRODUCT BACKLOG ITEM *

The Patient List should have a Search Box

No one selected 0 Comments Add Tag Save

State New Area MySoftware

Reason New backlog item Iteration MySoftware

Details

Description

[Click to add Description.](#)

Acceptance Criteria

[Click to add Acceptance Criteria.](#)

Discussion

Deployment

To track releases associated with this work item, go to [Releases](#) and turn on deployment status reporting for Boards in your pipeline's Options menu. [Learn more about deployment status reporting](#)

Development

Add link

Link an Azure Repos [commit](#), [pull request](#) or [branch](#) to see the status of your development. You can also [create a branch](#) to get started.

Product Backlog Example

Azure DevOps usn24 / MySoftware / Boards / Backlogs

Thank you for trying the new boards hub preview. If you experience any issues, please [report the bug](#). If your issue is blocking, you can disable the preview by following [these](#)

MySoftware Team

+ New Work Item View a

Backlog Analytics

	Order	Work Item Type	Title	State	Effort	Value Area	Iteration Path
	1	Product Backlo...	Medical Data should be listed for all Patients	New		Business	MySoftware\Sprint 1
	2	Product Backlo...	You should get detailed information about a Patient when ...	New		Business	MySoftware\Sprint 1
	3	Product Backlo...	It should be possible to login to the system	New		Business	MySoftware\Sprint 1
	4	Product Backlo...	The Patient List should have a Search Box	New		Business	MySoftware

Repos Pipelines

- The Scrum Product Backlog is simply a list of all things that needs to be done within the project.
- It replaces the traditional requirements specification.
- So basically, The Product Backlog is a List of all the Requirements for a given Software System.

Sprint Backlog and Taskboard

Development Team

Taskboard Backlog Capacity Analytics

February 15 - March 2
7 work days remaining

Sprint 1 - Alpha Person: All

To Do 17 h In Progress 8 h Done

Tasks (yellow items)

PBIs (blue items)

A Task is details how the developers are solving/implementing that specific PBI, so each PBI typically must be broken down into multiple Tasks. Tasks are typically only understandable for the development team.

Make sure to add proper Title, Assign a Responsible Person and estimate Number of Hours for each Task.

Project settings

A **PBI** is a specific requirement for your system and should be understandable by the customer.

Features

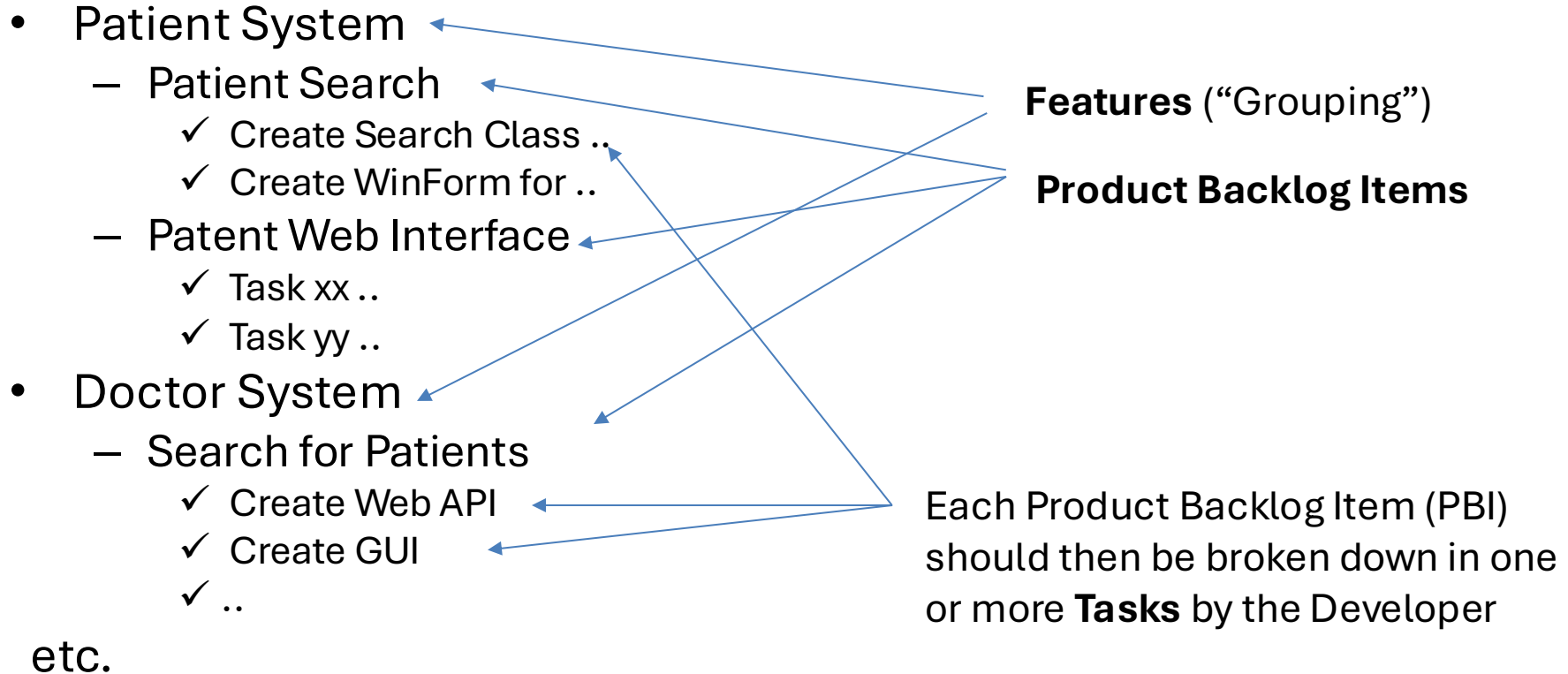
Features can be used to make it easier to structure all the Product Backlog Items (PBIs).
Features will then be a level above the Product Backlog Items (PBIs)

The screenshot shows the Azure DevOps interface for a team named 'MySoftware Team'. The main view is a backlog table with columns for Order, Work Item Type, Title, State, Effort, Value Area, and Iteration Path. The table contains several items, including Features and Product Backlog Items (PBIs). A dropdown menu is open over the 'Parents' column, showing options for 'Parents', 'Forecasting', 'In Progress Items', 'Completed Child Items', 'Keep hierarchy with filters', and 'Side Pane'. The 'Parents' option is selected, and the 'Side Pane' option has 'Mapping' checked.

Order	Work Item Type	Title	State	Effort	Value Area	Iteration Path
	Feature	Medical System	New		Business	MySoftware\Sprint 1
	Product Backlog Item	Medical Data should be listed for all Patients	New		Business	MySoftware\Sprint 1
	Feature	Patient System	New		Business	MySoftware\Sprint 1
	Product Backlog Item	The Patient List should have a Search Box	New		Business	MySoftware
	Product Backlog Item	Unparented Backlog items	New		Business	MySoftware\Sprint 1
	Product Backlog Item	You should get detailed information about a Patient whe...	New		Business	MySoftware\Sprint 1
	Product Backlog Item	It should be possible to login to the system	New		Business	MySoftware\Sprint 1

Features -> PBIs -> Tasks

Features can be used to make it easier to structure all the Product Backlog Items (PBIs):



Areas

In “Project Settings” you can configure “Areas” which can also be used to group or divide into different Systems, Modules, Applications, etc.

- Project Settings
- MySoftware
- General
- Overview
- Teams
- Permissions
- Notifications
- Service hooks
- Dashboards
- Boards
- Project configuration
- Team configuration
- GitHub connections
- Pipelines

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

Iterations **Areas**

Create and manage the areas for this project. These areas will be used by teams to determine what shows up on the team's backlog and what work items the team is responsible for. [Learn more about customizing areas and iterations](#)

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

New New child | + -

Areas

MySoftware

Database

Documentation

Medical System

Patient Module

Patient System

Patient Web Application

These “Areas” that you configure shows up when creating new Work Items

Work Items [Back to Work Items](#)

NEW PRODUCT BACKLOG ITEM • Field 'Title' cannot be empty.

Enter Title

No one selected 0 Comments Add Tag

State: New Area: MySoftware

Reason: New backlog item Iteration:

Description

Click to add Description.

Acceptance Criteria

Click to add Acceptance Criteria.

Discussion

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

Associated with this item on deployment runs in your pipeline. [About deployment](#)

Add link

Link an Azure Repos commit, pull request to see the status of your development or create a branch to get started.

Related Work

Add link

Add an existing work item as a parent

<https://www.halvorsen.blog>

Working with Sprints in Azure DevOps

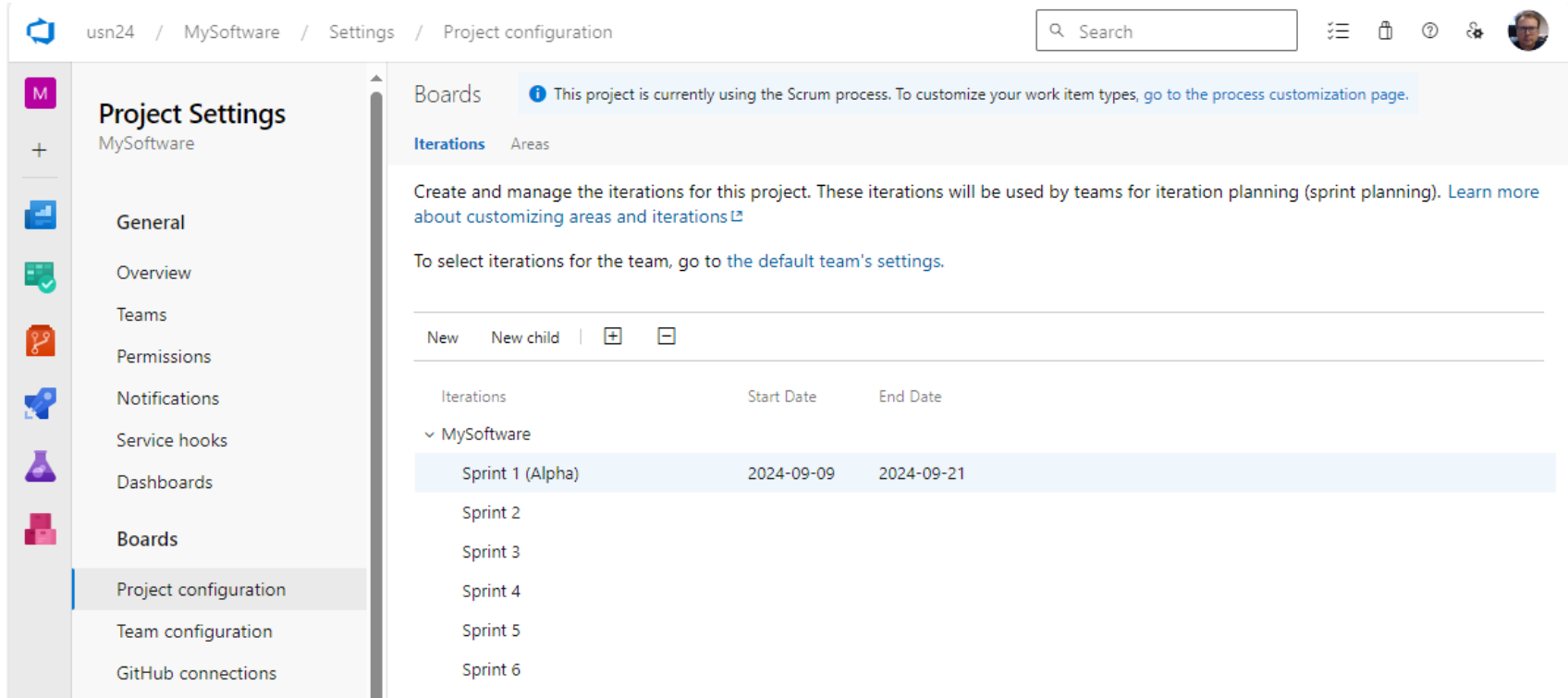


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Sprints in Azure DevOps

In “Project Settings” you can configure the different Sprint for your Project



The screenshot shows the Azure DevOps interface for a project named "MySoftware". The breadcrumb navigation is "usn24 / MySoftware / Settings / Project configuration". The left sidebar shows the "Project Settings" menu with "Boards" selected. The main content area is titled "Boards" and includes a notification: "This project is currently using the Scrum process. To customize your work item types, go to the process customization page." Below this, there are sections for "Iterations" and "Areas". The "Iterations" section contains instructions on how to create and manage iterations. At the bottom, there is a table of iterations for the "MySoftware" project.

usn24 / MySoftware / Settings / Project configuration

Search

Project Settings
MySoftware

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

Boards ⓘ This project is currently using the Scrum 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). [Learn more about 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
MySoftware		
Sprint 1 (Alpha)	2024-09-09	2024-09-21
Sprint 2		
Sprint 3		
Sprint 4		
Sprint 5		
Sprint 6		

Start Working with the Sprint

Sprint Start

- Before the Sprint starts you need to have a “**Sprint Planning Meeting**”.
 - Here you decide and setup which **Product Backlog Items** and **Tasks** that should be included in the Sprint.
 - All Tasks that shall be executed in the Sprint should be put into “To Do” column on the **Taskboard**.
- During the Sprint you move Tasks (one at the time) from “To Do” to “In Progress”.
- When you are finished with a Task move it to “Done”
- Every day the Team performs a “**Daily Scrum Meeting**”, also called a “**Standup Meeting**” where each member tells what he has been working with, what he should start work on and if he has any problems.
- When the Sprint is finished, all the Tasks should then hopefully be in the “Done” column.
- Then you need to have a “**Sprint Review Meeting**” where the team goes through and show/demonstrate these Tasks.

Sprint Finished

Taskboard in Azure DevOps

Azure DevOps usn24 / MySoftware / Boards / Sprints

MySoftware +

- Overview
- Boards
- Work items
- Boards
- Backlogs
- Sprints
- Queries
- Delivery Plans
- Analytics views
- Repos
- Pipelines
- Test Plans
- Artifacts

Thank you for trying the new boards hub preview. If you experience any issues, please [report the bug](#). If your issue is blocking, you can disable the preview by following [these steps](#).

MySoftware Team

Taskboard Backlog Capacity Analytics

Sprint 1 Person: All

Collapse all

To Do	In Progress	Done
<p>4 Medical Data should be listed for all Patients</p> <ul style="list-style-type: none">New <p>Unassigned</p>	<p>5 Create Database Class</p> <ul style="list-style-type: none">To Do <p>Unassigned</p>	<p>6 Create WinForm</p> <ul style="list-style-type: none">To Do <p>Unassigned</p>
<p>3 You should get detailed information about a Patient when clicking on the Name</p> <ul style="list-style-type: none">New <p>Unassigned</p>	<p>7 Create C# Method</p> <ul style="list-style-type: none">To Do <p>Unassigned</p>	
<p>2 It should be possible to login to the system</p> <ul style="list-style-type: none">New <p>Unassigned</p>	<p>Login Form</p> <ul style="list-style-type: none">To Do <p>Unassigned</p>	

Use the Taskboard during the Sprint

Azure DevOps usn24 / MySoftware / Boards / Sprints

Search

MySoftware +

- Overview
- Boards
- Work items
- Boards
- Backlogs
- Sprints
- Queries
- Delivery Plans
- Analytics views
- Repos
- Pipelines
- Test Plans
- Artifacts

MySoftware Team ☆

Taskboard Backlog Capacity Analytics

Sprint 1 Person: All

Collapse all

To Do	In Progress	Done
<ul style="list-style-type: none">4 Medical Data should be listed for all Patients<ul style="list-style-type: none">NewUnassigned	<ul style="list-style-type: none">5 Create Database Class<ul style="list-style-type: none">In ProgressUnassigned	<ul style="list-style-type: none">6 Create WinForm<ul style="list-style-type: none">DoneUnassigned
<ul style="list-style-type: none">3 You should get detailed information about a Patient when clicking on the Name<ul style="list-style-type: none">NewUnassigned	<ul style="list-style-type: none">7 Create C# Method<ul style="list-style-type: none">To DoUnassigned	
<ul style="list-style-type: none">2 It should be possible to login to the system<ul style="list-style-type: none">NewUnassigned	<ul style="list-style-type: none">9 Login Form<ul style="list-style-type: none">In ProgressUnassigned	

+ New Work Item

Taskboard

Here you see Start and Stop Date for the Sprint and remaining days

Product Backlog Items (PBIs)

For each PBI you need to enter one or more Tasks

September 9 - September 21
7 work days remaining

Make a proper Task Title for each Task

Make sure to Assign a Person and add Number of Hours the Task should take

You can easily Add more Task for a given PBI by clicking the “+” symbols

You can easily **Add** more Task for a given PBI by clicking the “+” symbols

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Alpha/Sprint1



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Alpha Release Overview

Important parts in the Alpha release are:

- Software Development Plan (**SDP**) is finished
- Software Requirements and Design (**SRD**) is finished
- **Product Backlog** in Azure DevOps (A Prioritized list of all Requirements) is created
- **Database** Design and Implementation has been made
 - ER diagram
 - SQL Server is ready to use with the tables installed
- Proof of Concept (**PoC**) System/Applications
 - Made some simple apps (desktop or web) that are able to communicate with the database you have created
 - The Code is checked into the Azure DevOps Git repository
- **HTML** Web Page

Alpha Release - Details

1. Documents: The following Documents should be “finished”:

- Software Development Plan (SDP)**
 - Product Description, Team Description and Project Organization, Gantt Chart, Tools and Templates, etc.
- Software Requirements and Design (SRD)**
 - System overview, System and User Requirements, **Functional and Non-Functional Requirements, GUI Sketches, ER diagram, UML Diagrams**
- SDP and SRD can easily be found in Microsoft Teams, and you have made a good folder structure

2. Software/Programming:

- Latest **Visual Studio** has been installed
- Tables Implemented in **SQL Server** (on everybody's Development PCs) – Generated from erwin Script
- You know how to **Communicate with your SQL Server Database from C#** Code (You have made a small examples to for storing and reading data from the database used in your project)
- Database API**. You have made one or more common Views/Stored Procedures that can be used by all the application. Sql scrips are in Azure DevOps
- PoC**: You have started to to make a draft/PoC of your Applications with some some basic Database Communication
- You have created **Classes** and Methods (according to the UML diagrams) - not the contents in the Methods, just the Names/declarations
- ALL Team Members have installed MS Project (or similar), erwin Data Modeler, SQL Server, Visual Studio, UML software
- ALL Team Members have started to do some Programming in Visual Studio!
- ALL Team Members have been given a clear responsibility (e.g., responsible for a separate module or application) when it comes to Programming!

3. Azure DevOps (An Azure DevOps Project has been made + give access to all Team members + supervisor):

- A good Folder structure has been made + Iterations (Alpha, Beta, RC, RTM). Make sure to have a good structure in Microsoft Trams as well
- Product Backlog** has been made (A List of Requirements for your System) in Azure DevOps
- ER Diagram, Database Scripts**, etc. have been uploaded/Checked-in into Azure DevOps
- PoC Applications have been uploaded/Checked-in into Azure DevOps + Same with Database Scripts (Tables, Views, Stored Procedures)

4. Project Web Page

- A simple **HTML Web Page** with an Introduction (Text and Figures) + Links to SDP and SRD (PDF) +++ (work next week)

Tasks for Alpha Release/Sprint 1

Here is some Examples how the Sprint 1 can look like:

The screenshot shows the Azure DevOps interface for the ProjectHPH Team. The left sidebar contains navigation options: Overview, Boards, Work items, Backlogs (selected), Sprints, Queries, Delivery Plans, Analytics views, Repos, Pipelines, Test Plans, and Artifacts. The main area displays the Backlog for the ProjectHPH Team, with a 'New Work Item' button in the top right. The backlog is organized into a table with columns for Order, Work Item Type, Title, State, Effort, Value Area, and Iteration Path. The tasks are grouped into 8 Product Backlog Items, each with associated tasks.

Order	Work Item Type	Title	State	Effort	Value Area	Iteration Path
1	Product Backlog Item	Project Management	New		Business	ProjectHPH\Sprint 1 (Alpha)
	Task	Finalize Gantt Chart	To Do			ProjectHPH\Sprint 1 (Alpha)
2	Product Backlog Item	Software	New		Business	ProjectHPH\Sprint 1 (Alpha)
	Task	Test Communication with Database in App1	To Do			ProjectHPH\Sprint 1 (Alpha)
3	Product Backlog Item	Product Web Page	New		Business	ProjectHPH\Sprint 1 (Alpha)
4	Product Backlog Item	Azure DevOps	New		Business	ProjectHPH\Sprint 1 (Alpha)
	Task	Create Project	To Do			ProjectHPH\Sprint 1 (Alpha)
	Task	Assign Membera	To Do			ProjectHPH\Sprint 1 (Alpha)
5	Product Backlog Item	Visual Studio	New		Business	ProjectHPH\Sprint 1 (Alpha)
	Task	Setup Git	To Do			ProjectHPH\Sprint 1 (Alpha)
	Task	Create Product Backlog	To Do			ProjectHPH\Sprint 1 (Alpha)
6	Product Backlog Item	Database	New		Business	ProjectHPH\Sprint 1 (Alpha)
	Task	Finalize ER diagram	To Do			ProjectHPH\Sprint 1 (Alpha)
	Task	Implement Tables	To Do			ProjectHPH\Sprint 1 (Alpha)
7	Product Backlog Item	Software Requirements and Design	New		Business	ProjectHPH\Sprint 1 (Alpha)
	Task	Update Picture on Title Page	To Do			ProjectHPH\Sprint 1 (Alpha)
	Task	Finalize Daatabase chapter	To Do			ProjectHPH\Sprint 1 (Alpha)
8	Product Backlog Item	Software Development Plan	New		Business	ProjectHPH\Sprint 1 (Alpha)
	Task	Finalize Chapter 4	To Do			ProjectHPH\Sprint 1 (Alpha)

Taskboard for Alpha Release/Sprint 1

ProjectHPH Team

Taskboard Backlog Capacity Analytics

Sprint 1 (Alpha) Person: All

+ New Work Item Column Options

No iteration dates Set dates

A snapshot of the Taskboard for Sprint 1

Collapse all	To Do	In Progress	Done
19 Project Management New Unassigned		20 Finalize Gantt Chart In Progress Unassigned	
18 Software New Unassigned	24 Test Communication with Database in App1 To Do Unassigned		
17 Product Web Page New Unassigned			
16 Azure DevOps New Unassigned	22 Assign Membera To Do Unassigned	23 Create Product Backlog To Do Unassigned	21 Create Project Done Unassigned
15 Visual Studio New Unassigned		28 Setup Git In Progress Unassigned	
14 Database New Unassigned	25 Finalize ER diagram To Do Unassigned	26 Implement Tables To Do Unassigned	
13 Software Requirements and Design New Unassigned	30 Finalize Database chapter To Do Unassigned		29 Update Picture on Title Page Done Unassigned

Remember to Assign 1 Person on each Task

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