DAY 1 DOCUMENTATION

AZURE BOARDS:

WHY AZURE BOARDS:

Azure Boards is a powerful tool for project management, particularly well-suited for teams employing Agile methodologies. Here are several compelling reasons to use Azure Boards

1.Comprehensive Work Item Management: Create and manage various work items like tasks, bugs, user stories, and features

2.Visual Project Tracking: The platform uses a Kanban-style interface

visualize their work and progress through boards, backlogs, and sprints

3.Integration with Microsoft Tools: Azure Boards seamlessly integrates with other Microsoft tools, such as Teams and GitHub, enhancing collaboration and communication across platforms.

4.Customizable Dashboards and Analytics: Teams can create tailored dashboards that provide insights into project metrics, such as work item status, burndown charts, and lead times.

5.Automated Workflows: Azure Boards supports setting up automated workflows to streamline processes, reduce manual tasks, and minimize errors.

6.Scalability and Flexibility: Whether managing a small project or a large program, Azure Boards scales effectively to fit diverse project sizes and complexities.

7.Enhanced Collaboration Features: It includes built-in social tools and communication features like comments, mentions, and notifications to facilitate collaboration among team members, ensuring that everyone remains informed and engaged.

8. to Start: Teams can start using Azure Boards for free, accommodating up to five users along with unlimited stakeholders

WHAT IS MEAN BUY AZURE BOARDS?

Azure Boards is a service within the Azure DevOps suite that provides tools for planning, tracking, and managing software development projects. It is specifically designed to help teams organize their work throughout the software development lifecycle, supporting methodologies such as Agile, Scrum, and Kanban.

Azure Boards serves as a comprehensive project management tool designed to enhance efficiency, improve collaboration, and streamline workflows in software development environments. It plays a vital role in ensuring that teams can effectively monitor and manage their projects from start to finish.

TYPES PROCESS IN AZURE BOARDS:

Azure Boards supports various process templates to cater to different team methodologies and project management practices. The four primary processes in Azure Boards are:

BASIC PROCESS:

- Overview: A simplified process designed for smaller teams or projects that do not require extensive project management.
- Work Item Types: This process provides Issues, Tasks, Bugs, and Epics. Issues are used to track non-feature tasks or obstructive factors.

AGILE PROCESS:

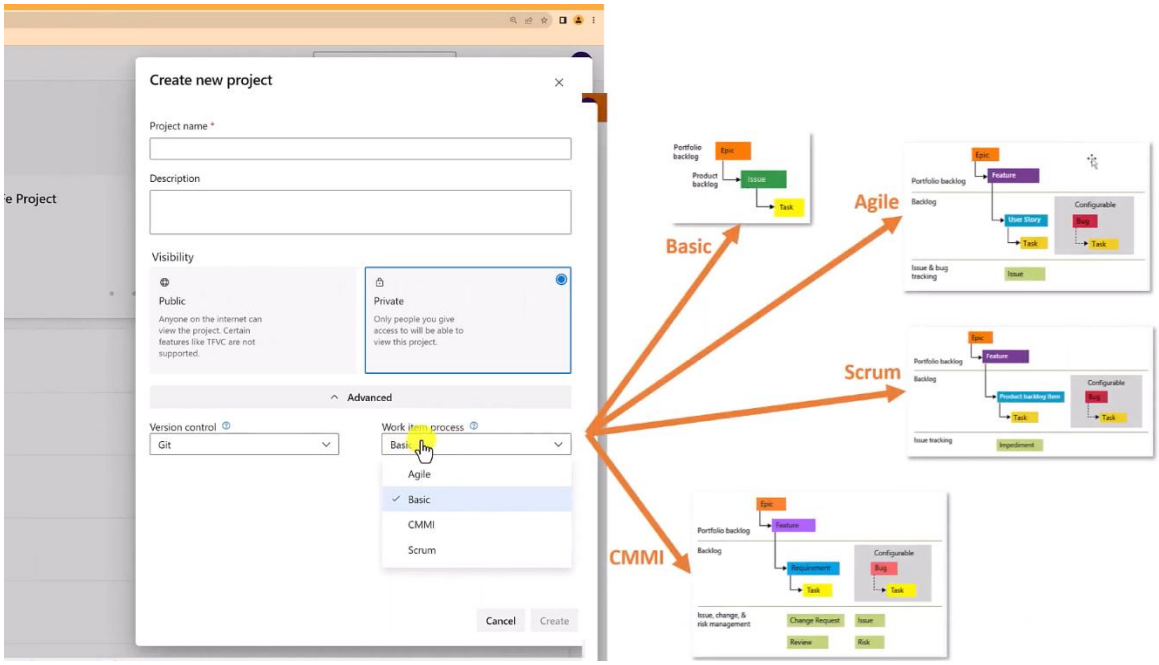
- Overview: Designed for teams that follow Agile methodologies, this process emphasizes flexibility and iterative development.
- Work Item Types: Key work item types include User Stories, Tasks, Bugs, and Epics. User Stories represent features valued by customers, while Bugs track defects in the software. Epics group related User Stories at a high level.

SCRUM PROCESS:

- Overview: Tailored for Scrum teams, this process supports time-boxed iterations (sprints) and Scrum practices.
- Work Item Types: It includes Product Backlog Items (PBIs), Tasks, Bugs, and Epics. PBIs represent deliverable features and are prioritized in the backlog.

CMMI PROCESS (CAPABILITY MATURITY MODEL INTEGRATION):

- Overview: CMMI is geared towards organizations with a structured approach to project management, often in regulated industries.
- Work Item Types: This process uses Requirements, Tasks, Bugs, and Epics. Requirements capture detailed business needs, and Tasks outline the specific work needed to fulfill those requirements.



In Azure DevOps Boards, various types of work item processes allow teams to organize and manage their work effectively. Below are the primary work item types along with explanations and examples of a simple project to illustrate how they function within a hierarchy.

1. EPICS

- Definition: An Epic represents a large body of work that encompasses a significant initiative or feature in a project. It serves as a container for related work items.
- Example: Imagine you are developing an e-commerce application. An Epic could be "User Account Management".

2. FEATURES

- Definition: Features are sizable components of functionality that deliver value to the end user and often roll up to an Epic. They are broken down further into user stories or tasks.
- Example: Under the Epic "User Account Management," a related Feature could be "User Registration and Login".

3. USER STORIES (AGILE)

- Definition: User Stories describe specific user requirements or needs. They articulate the value a feature brings from the user's perspective and are typically smaller than Features

- Example: For the Feature "User Registration and Login," User Stories could include:
    - "As a user, I want to register an account using my email."
    - "As a user, I want to log in using my email and password."

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3. Product Backlog Item (Scrum):

- A PBI is a task that needs to be completed to improve a project or fix an issue. PBIs can include specifications, new feature requests, bugs, and change requirements.

4. Tasks

- Definition: Tasks are the smallest work items that define specific actions needed to complete a User Story. They are often assigned to team members and are usually wrapped up in a short timeframe.
- Example: For the User Story "As a user, I want to register an account using my email," associated Tasks could be:
    - "Create a registration form UI."
    - "Implement backend API for user registration."
    - "Write unit tests for the registration feature."

Steps to Create the New Project in Azure Boards:

Creating a new project in Azure Boards involves a straightforward process. Below are the steps to set up a new project:

1. Log In to Azure DevOps:
    - Navigate to Azure DevOps and sign in with your Microsoft account.
2. Access Your Organization:
    - Once logged in, select your organization from the home page. If you do not have an organization, you will need to create one first.
3. Create a New Project:
    - On the organization home page, click the "New Project" button.
4. Fill Out the Project Details:

- Project Name: Enter a meaningful name for your project (up to 64 characters) that cannot include special characters or begin with an underscore or period.
- Description (Optional): You can optionally provide a description for your project.
- Visibility: Choose between Private (accessible only to those you invite) or Public (open for anyone to view).
- Version Control: Select the type of version control you'd like to use: Git (recommended) or TFVC (Team Foundation Version Control).
- Work Item Process: Choose a process template such as Agile, Scrum, CMMI, or Basic, depending on your team's needs.

5. Create the Project:
    - Click the "Create" button to finalize the setup. Azure Boards will set up your project and take you to the project dashboard.
6. Configure Project Settings (Optional):
    - Once the project is created, you can further configure the settings, add teams, and customize boards or backlogs as needed.
7. Start Adding Work Items:
    - You can begin adding work items like Epics, Issues, and Tasks to your project, engaging your team in planning and execution.

PRODUCT BACKLOG: In azure boards a product backlog is effectively an ordered list of items that must be done to complete the project.

KANBAN BOARDS: A Kanban board in Azure DevOps is a visual tool used to manage work items and track progress in a project. It provides a clear overview of tasks, their status, and their flow through different stages.

WORK ITEMS: Use work items to track features and requirements you're developing, code defects or bugs, and issues or risks to your project. Each work item is based on a work item type that determines the work item fields available for tracking information. The work item types available to you differ depending on the process used when your project was created: Agile, Basic, Scrum, or CMMI.

SPRINTS: Sprints tools include a filtered backlog based on an Iteration Path and a similarly filtered taskboard. These tools are useful for implementing Scrum practices. With Scrum, you can schedule and plan sprints, update your taskboard, and monitor your sprint burndown.

QUERIES: List bugs, user stories, or other work items based on field criteria you specify using queries. You can then review these lists with your team, triage work, or bulk update work items. Along with managed queries, the semantic search tool provides some overlapping and different functionality worth exploring.

Example: Summarizing complete boards using the project-based using scrum process example:

Certainly! Let's take an example project using the Scrum process with Azure Boards to illustrate how to effectively manage work.

Example Project: Online Bookstore

1. Work Items

In a Scrum project, work items are categorized and represent units of work. For our Online Bookstore project, the work items would generally include:

- Epics: High-level objectives, such as "Implement User Authentication" or "Add Shopping Cart Feature."
- Product Backlog Items (PBIs): Specific features or functionalities that deliver value to users. For instance:
    - "As a user, I want to create an account."
    - "As a user, I want to view my order history."
- Tasks: Subunits of PBIs that detail the work needed to accomplish them. For example, under "As a user, I want to create an account":
    - "Design registration form."
    - "Implement API for user registration."
- Bugs: Issues encountered during development or testing, such as "Registration form crashes on submit."

2. Backlogs

In Scrum, two primary backlogs exist:

- Product Backlog: A prioritized list of all PBIs and bugs. The Product Owner is responsible for maintaining and prioritizing this backlog based on customer input and project needs.
    - Example entries might include:
        - User authentication features.

        - Search functionality for books.
        - Payment gateway integration.
- Sprint Backlog: A subset of the product backlog that the Scrum team commits to completing during a sprint. This is selected during the sprint planning meeting.
    - For example, a sprint backlog might include:
        - "Implement user registration."
        - "Set up user login functionality."
        - "Create API for retrieving book details."

3. Boards

Azure Boards provide a visual interface to help manage and track work items:

- Sprint Board: This board displays the current sprint's tasks and their status, allowing team members to easily drag and drop tasks between columns such as "To Do," "In Progress," and "Done."
- Kanban Board: While Scrum teams often work in sprints, a Kanban board can help visualize the workflow of tasks and manage flow.

4. Sprints

Sprints are fixed-length iterations, usually lasting between 1 to 4 weeks. This project might have two-week sprints. During each sprint:

- Sprint Planning: The team gathers to discuss which items from the product backlog they can commit to completing in the upcoming sprint. This involves estimating the effort required and assigning tasks.
- Daily Stand-ups: Short daily meetings (typically 15 minutes) where team members discuss what they did yesterday, what they'll do today, and any impediments they face.
- Sprint Review: At the end of the sprint, the team demonstrates completed work to stakeholders for feedback.
- Sprint Retrospective: A meeting to reflect on the sprint, discussing what went well, what didn’t, and how to improve in future sprints.

5. Queries

Queries in Azure Boards allow teams to filter work items based on specific criteria:

- For example, a team might create a query to find:
    - All PBIs assigned to a specific team member.
    - Bugs that are still open.

- Work items that are overdue.

These queries can be saved for easy access and can help monitor project progress and individual contributions.

6. Planning

Planning in Scrum involves several crucial aspects:

- Sprint Planning Meetings: Where the team decides on PBIs to work on. They determine the total effort (often measured in story points) and prioritize work based on business value.
- Product Backlog Refinement: Ongoing discussions and adjustments to the product backlog to ensure items are well-defined and prioritized.
- Release Planning: At a higher level, release planning involves scheduling sprints and defining goals for delivering completed work to stakeholders.

Summary

In this Online Bookstore project example utilizing Azure Boards within the Scrum framework, we have outlined how to utilize work items, backlogs, boards, sprints, queries, and planning. This structure facilitates focused, iterative progress, aligned with Agile principles, allowing teams to deliver incremental value while continuously improving their processes.

If you'd like more details on any specific area or have additional questions, feel free to ask!