

# Azure DevOps - Theoretical Assignment

## Problem Statement:

You are part of a software development team working on a new internal tool named “TeamPulse” — a web-based project management dashboard that helps organizations track productivity, project milestones, and collaboration efficiency.

Your task is to structure this project in Azure DevOps, defining a clear hierarchy of

**Epics → Features → User Stories → Tasks.**

## Objective:

To demonstrate your understanding of Agile Project Structuring and how Azure DevOps supports:

- Work item management
- Team collaboration
- Sprint planning
- Traceability and reporting

## Submission:

### 2. Screenshots:

The screenshot shows the Azure DevOps interface for the 'TeamPulse Project'. The left sidebar contains navigation links: TeamPulse Project, Overview, Summary, Dashboards, Wiki, Boards, Repos, Pipelines, Test Plans, Artifacts, and Project settings. The main content area is titled 'TeamPulse Project' and includes sections for 'About this project' (with a 'Add Project Description' button), 'Project stats' (showing 51 work items created and 28 completed), and 'Members' (listing one member). A cartoon character is running on clouds in the background of the stats section.

## Epic Screenshot:

### Epic

- TeamPulse – Project Management Dashboard

The screenshot shows the Azure DevOps interface for the 'TeamPulse Project'. The left sidebar has 'Work items' selected. The main area is titled 'Work items' and shows a single item with ID 292 and title 'TeamPulse – Project Management Dashboard'. The item is assigned to 'JAS M' and is in the 'New' state under the 'TeamPulse Project' area path. The top navigation bar includes 'Search' and various project settings icons.

ID	Title	Assigned To	State	Area Path
292	TeamPulse – Project Management Dashboard	JAS M	New	TeamPulse Project

## Features Screenshot:

### Features (Under Epic)

1. User Authentication & Role Management
2. Dashboard Analytics & KPIs
3. Task & Sprint Management
4. Team Chat & Notifications

The screenshot shows the Azure DevOps interface for the 'TeamPulse Project'. The left sidebar has 'Work items' selected. The main area is titled 'Work items' and shows four items under the 'Feature' filter: 'Team Chat & Notifications', 'Task & Sprint Management', 'Dashboard Analytics & KPIs', and 'User Authentication & Role Management'. All items are assigned to 'JAS M' and are in the 'New' state under the 'TeamPulse Project' area path. The top navigation bar includes 'Search' and various project settings icons.

ID	Title	Assigned To	State	Area Path
296	Team Chat & Notifications	JAS M	New	TeamPulse Project
295	Task & Sprint Management	JAS M	New	TeamPulse Project
294	Dashboard Analytics & KPIs	JAS M	New	TeamPulse Project
293	User Authentication & Role Management	JAS M	New	TeamPulse Project

# User Story Screenshot:

## Parent Feature: User Authentication & Role Management

- Admin: Create User Accounts
- Manager: Assign/Change User Roles
- User: Secure Account Login

## Parent Feature: Dashboard Analytics & KPIs

- Manager: View Team Velocity KPI
- Executive: View Multi-Project Burndown
- User: View Personal Task Summary

## Parent Feature: Task & Sprint Management

- Project Lead: Create & Define Sprints
- User: Update Task Status on Board
- Project Lead: Estimate Effort (Points/Hours)

## Parent Feature: Team Chat & Notifications

- Team: Persistent Chat Sidebar
- User: In-App Notifications
- User: '@Mention' in Comments

The screenshot shows the Azure DevOps interface for the 'TeamPulse Project'. The left sidebar is collapsed, and the main area displays a table of work items under the 'Work items' tab. The table has columns for ID, Title, Assigned To, State, Area Path, Tags, and Comments. The data is as follows:

ID	Title	Assigned To	State	Area Path	Tags	Comments
302	User: View Personal Task Summary	JAS M	Resolved	TeamPulse Project	Frontend, Usability	
298	Manager: Assign/Change User Roles	JAS M	Resolved	TeamPulse Project	Backend, Database	...
303	Project Lead: Create & Define Sprints	JAS M	Active	TeamPulse Project	Backend, Planning	
299	User: Secure Account Login	JAS M	Resolved	TeamPulse Project	Frontend, Security	
305	Project Lead: Estimate Effort (Points/Hours)	JAS M	Active	TeamPulse Project	Database, Planning	
304	User: Update Task Status on Board	JAS M	Active	TeamPulse Project	Frontend, Usability	
306	Team: Persistent Chat Sidebar	JAS M	New	TeamPulse Project	Frontend, Real-time	
307	User: In-App Notifications	JAS M	New	TeamPulse Project	Backend, Frontend	...
308	User: '@Mention' in Comments	JAS M	New	TeamPulse Project	Frontend, Usability	
301	Executive: View Multi-Project Burndown.	JAS M	Resolved	TeamPulse Project	Analytics, Frontend	...
300	Manager: View Team Velocity KPI	JAS M	Resolved	TeamPulse Project	Analytics, Frontend	...
297	Admin: Create User Accounts	JAS M	Resolved	TeamPulse Project	Backend, Frontend	...

## **Tasks Screenshot:**

### **Parent User Story: Admin: Create User Accounts**

- Define user roles and permissions.
- Design 'Create User' UI.
- Implement User Creation API.
- Configure Email Service.

### **Parent User Story: Manager: Assign/Change User Roles**

- Update DB Schema for Roles.
- Develop Role Editing UI.
- Implement Role Change Logic.

### **Parent User Story: User: Secure Account Login**

- Design Login/Reg Forms.
- Implement Auth Token Generation.
- Create Auth Data Flow Diagram.
- Document Password Reset Flow.

### **Parent User Story: Manager: View Team Velocity KPI**

- Define/Calculate Velocity Metric.
- Develop KPI Data API.
- Implement Velocity Chart.

### **Parent User Story: Executive: View Multi-Project Burndown**

- Aggregate Burndown Data.
- Design Interactive Burndown Chart.
- Optimize Historical Data Fetch.

### **Parent User Story: User: View Personal Task Summary**

- Create User-Specific Tasks API.
- Develop 'My Work' Widget.

### **Parent User Story: Project Lead: Create & Define Sprints**

- Design 'Sprint Settings' UI.
- Implement Sprint Date Logic.
- Link Work Items to Iterations.

### **Parent User Story: User: Update Task Status on Board**

- Implement Kanban Drag/Drop.
- Develop Status Update API.
- Add Status Change to History.

### **Parent User Story: Project Lead: Estimate Effort (Points/Hours)**

- Add Estimation Fields to Templates.
- Create Capacity View.

### **Parent User Story: Team: Persistent Chat Sidebar**

- Integrate WebSocket Service.
- Design/Implement Chat UI.
- Implement Message Storage.

### **Parent User Story: User: In-App Notifications**

- Implement Notification Service.
- Develop Notification Data Model/API.
- Create Notification UI/Badge.

### Parent User Story: User: '@Mention' in Comments

- Implement '@' Autocomplete.
- Link '@Mention' to Notification Service.

Azure DevOps jasminem1 / TeamPulse Project / Boards / Work items  ☰ 🖨️ 🔗 ✖ JM

**TeamPulse Project** +

**Boards**

**Work items**

- Boards
- Backlogs
- Sprints
- Queries
- Delivery Plans
- Analytics views
- Repos
- Pipelines
- Test Plans
- Project settings

Work items

Recently updated | + New Work Item | Open filtered view in Queries | Column Options | ...

ID	Title	Assigned To	State	Area Path
319	Define and calculate Velocity KPI metric	JAS M	New	TeamPulse F
318	Document password reset logic and flow	JAS M	New	TeamPulse F
317	Create theoretical data flow diagrams	JAS M	New	TeamPulse F
316	Implement server-side password validation and token generation	JAS M	New	TeamPulse F
315	Design the login and registration form UI/UX	JAS M	New	TeamPulse F
314	Implement role change authorization logic	JAS M	New	TeamPulse F
313	Develop Role Editing UI component	JAS M	New	TeamPulse F
312	Update DB Schema for Roles	JAS M	New	TeamPulse F
311	Configure Email Service	JAS M	New	TeamPulse F
310	Implement User Creation API	JAS M	New	TeamPulse F
309	Design 'Create User' UI	JAS M	New	TeamPulse F

Azure DevOps jasminem1 / TeamPulse Project / Boards / Work items  ☰ 🖨️ 🔗 ✖ JM

**TeamPulse Project** +

**Boards**

**Work items**

- Boards
- Backlogs
- Sprints
- Queries
- Delivery Plans
- Analytics views
- Repos
- Pipelines
- Test Plans
- Project settings

Work items

Recently updated | + New Work Item | Open filtered view in Queries | Column Options | ...

ID	Title	Assigned To	State	Area Path
330	Implement drag-and-drop for Kanban cards	JAS M	New	TeamPulse F
329	Ensure work items can be assigned to the new sprint	JAS M	New	TeamPulse F
328	Implement sprint date validation and persistence	JAS M	New	TeamPulse F
327	Design the 'Sprint Settings' configuration interface.	JAS M	New	TeamPulse F
326	Develop the 'My Work' dashboard widget and sorting logic	JAS M	New	TeamPulse F
325	Create API endpoint to fetch user-specific tasks	JAS M	New	TeamPulse F
324	Optimize data fetch for historical views	JAS M	New	TeamPulse F
323	Design and style the interactive Burndown Chart component	JAS M	New	TeamPulse F
322	Implement data aggregation for multi-project burndown	JAS M	New	TeamPulse F
321	Implement charting component (Velocity/Throughput)	JAS M	New	TeamPulse F
320	Develop API endpoint for dashboard data	JAS M	New	TeamPulse F

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Azure DevOps jasminem1 / TeamPulse Project / Boards / Work items

Search

TeamPulse Project

Overview

Boards

Work items

Boards

Backlogs

Sprints

Queries

Delivery Plans

Analytics views

Repos

Pipelines

Test Plans

Project settings

Work items

Recently updated

+ New Work Item

Open filtered view in Queries

Column Options

Filter by keyword

ID	Title	Assigned To	State	Area Path
341	Implement '@' symbol autocomplete functionality	JAS M	New	TeamPulse F
340	Create the in-app notification component and badge count	JAS M	New	TeamPulse F
339	Develop the notification data model and API	JAS M	New	TeamPulse F
338	Implement a notification service to track work item changes	JAS M	New	TeamPulse F
337	Implement message storage and retrieval	JAS M	New	TeamPulse F
336	Design and implement the chat sidebar UI/UX	JAS M	New	TeamPulse F
335	Integrate a WebSocket service for real-time chat	JAS M	New	TeamPulse F
334	Create capacity calculation view	JAS M	New	TeamPulse F
333	Add 'Story Points' and 'Remaining Work' fields to templates	JAS M	New	TeamPulse F
332	Add task status change to history log	JAS M	New	TeamPulse F

## Backlog View:

Azure DevOps jasminem1 / TeamPulse Project / Boards / Backlogs

Search

TeamPulse Project

Overview

Boards

Work items

Boards

Backlogs

Sprints

Queries

Delivery Plans

Analytics views

Repos

Pipelines

Test Plans

Project settings

TeamPulse Project Team

+ New Work Item

View as Board

Column Options

Backlog Analytics

Order

Work Item Ty...

Title

Epic

Feature

Feature

Feature

Feature

Planning

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

TeamPulse Project Team backlog

Iteration 1

No work scheduled yet

Iteration 2

No work scheduled yet

Iteration 3

No work scheduled yet

+ New Sprint

**TeamPulse Project**

- Overview
- Boards
- Work items
- Boards
- Backlogs**
- Sprints
- Queries
- Delivery Plans
- Analytics views
- Repos
- Pipelines
- Test Plans
- Project settings

**TeamPulse Project Team**

**Backlog** Analytics

[+]	-	Order	Work Item Ty...	Title
1	User Story	>	Admin: Create User Accounts	
2	User Story	>	Manager: Assign/Change User Roles	
3	User Story	>	User: Secure Account Login	
4	User Story	>	Manager: View Team Velocity KPI	
5	User Story	>	Executive: View Multi-Project Burndown.	
6	User Story	>	User: View Personal Task Summary	
7	User Story	>	Project Lead: Create & Define Sprints	
8	User Story	>	User: Update Task Status on Board	
9	User Story	>	Project Lead: Estimate Effort (Points/Hours)	
10	User Story	>	Team: Persistent Chat Sidebar	
11	User Story	>	User: In-App Notifications	
12	User Story	>	User: '@Mention' in Comments	

**Stories**

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

- TeamPulse Project Team backlog
- Iteration 1**  
No work scheduled yet
- Iteration 2**  
No work scheduled yet
- Iteration 3**  
No work scheduled yet

+ New Sprint

**TeamPulse Project**

- Overview
- Boards
- Work items
- Boards
- Backlogs**
- Sprints
- Queries
- Delivery Plans
- Analytics views
- Repos
- Pipelines
- Test Plans
- Project settings

**TeamPulse Project Team**

**Backlog** Analytics

[+]	-	Order	Work Item Ty...	Title
Epic	<	TeamPulse - Project Management Dashboard		
Feature	<	User Authentication & Role Management		
User Story	>	Admin: Create User Accounts		
User Story	>	Manager: Assign/Change User Roles		
User Story	>	User: Secure Account Login		
Feature	<	Dashboard Analytics & KPIs		
User Story	>	Manager: View Team Velocity KPI		
User Story	>	Executive: View Multi-Project Burndown.		
User Story	>	User: View Personal Task Summary		
Feature	<	Task & Sprint Management		
User Story	>	Project Lead: Create & Define Sprints		
User Story	>	User: Update Task Status on Board		

**Stories**

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

- TeamPulse Project Team backlog
- Iteration 1**  
No work scheduled yet
- Iteration 2**  
No work scheduled yet
- Iteration 3**  
No work scheduled yet

+ New Sprint

**TeamPulse Project**

- Overview
- Boards
- Work items
- Boards
- Backlogs**
- Sprints
- Queries
- Delivery Plans
- Analytics views
- Repos
- Pipelines
- Test Plans
- Project settings

**TeamPulse Project Team**

**Backlog** Analytics

[+]	-	Order	Work Item Ty...	Title
Feature	<	Dashboard Analytics & KPIs		
User Story	>	Manager: View Team Velocity KPI		
User Story	>	Executive: View Multi-Project Burndown.		
User Story	>	User: View Personal Task Summary		
Feature	<	Task & Sprint Management		
User Story	>	Project Lead: Create & Define Sprints		
User Story	>	User: Update Task Status on Board		
User Story	>	Project Lead: Estimate Effort (Points/Hours)		
Feature	<	Team Chat & Notifications		
User Story	>	Team: Persistent Chat Sidebar		
User Story	>	User: In-App Notifications		
User Story	>	User: '@Mention' in Comments		

**Stories**

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

- TeamPulse Project Team backlog
- Iteration 1**  
No work scheduled yet
- Iteration 2**  
No work scheduled yet
- Iteration 3**  
No work scheduled yet



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## Backlog View for New states:

The screenshot shows the Azure DevOps Backlog View for the TeamPulse Project Team. The backlog table includes columns for Title, State, Story Points, Value Area, and Iteration Path. The backlog is organized by type (Epic, Feature, User Story, Task) and state (New). A sidebar on the right provides an overview of the project's planning, including sprints (Sprint 1, Sprint 2), iterations (Iteration 1, Iteration 2, Iteration 3), and a 'Planning' section for dragging work items into sprints.

Work Item Type	Title	State	Story Points	Value Area	Iteration Path
Epic	TeamPulse – Project Management Dashboard	New		Business	TeamPulse Project
Feature	Team Chat & Notifications	New		Business	TeamPulse Project
User Story	Team: Persistent Chat Sidebar	New	20	Business	TeamPulse Project
Task	Design and implement the chat sidebar UI/UX	New			TeamPulse Project
Task	Implement message storage and retrieval	New			TeamPulse Project
User Story	User: In-App Notifications	New	30	Business	TeamPulse Project
Task	Develop the notification data model and API	New			TeamPulse Project
Task	Create the in-app notification component and ba...	New			TeamPulse Project
User Story	User: '@Mention' in Comments	New	20	Business	TeamPulse Project
Task	Update notification service to specifically handle...	New			TeamPulse Project

### 3. Write a short explanation

#### 1. How Azure DevOps supports Agile methodology

Azure DevOps is a comprehensive set of cloud-based services that provides an integrated toolchain to support the planning, development, testing, and deployment phases of the software development lifecycle, aligning perfectly with Agile and DevOps methodologies.

It supports Agile principles by offering tools for:

##### Agile Planning and Tracking (Azure Boards)

Azure Boards is the primary component for Agile project management and directly supports popular frameworks like Scrum and Kanban:

- Work Item Management: Teams use work item types like Epics, Features, User Stories (or Product Backlog Items), Tasks, and Bugs to capture and track work, enabling the Agile practice of splitting work into smaller, manageable units.
- Backlogs: Teams can create and prioritize Product Backlogs (lists of user stories) and Portfolio Backlogs (lists of Features and Epics) to maintain a clear, prioritized product roadmap.
- Sprint Planning: Azure DevOps provides dedicated Sprint Backlogs and Taskboards that facilitate sprint planning, allowing teams to assign work items to specific iterations, estimate effort (Story Points), and define team capacity.
- Visualization and Monitoring:
  - Kanban Boards: Customizable boards help teams visualize the workflow, limit Work in Progress (WIP), and identify bottlenecks—core principles of Kanban.
  - Burndown Charts and Velocity Charts: These built-in analytics and reports provide real-time progress monitoring, promoting transparency and allowing for continuous process improvement.

## **Continuous Integration and Delivery (CI/CD)**

Azure Pipelines directly enables the Agile practice of delivering working software frequently by automating the build, test, and deployment process:

- Continuous Integration (CI): Automates the process of merging developer code changes frequently into a central repository and running automated tests, catching integration issues early.
- Continuous Delivery (CD): Automates the release process to deploy software to various environments (like staging or production) quickly and reliably after testing, ensuring shippable increments at the end of every sprint.
- Infrastructure as Code(IaC): Supports managing and provisioning infrastructure as a development task, which is key to repeatable and rapid deployments.

## **2.Benefits of Breaking Large Projects into Smaller Work Items**

Breaking large projects (Epics) into smaller, manageable items (Features, Stories, Tasks) offers several key benefits. It drastically **improves estimation accuracy** and **reduces risk** by making work tangible. This structure enhances **traceability**, ensuring every small task directly contributes to a prioritized user goal. Most importantly, it allows the team to **deliver value incrementally** and gather early feedback, which is the core principle of agile development.

- **Improved Estimation and Risk Reduction:** It drastically improves **estimation accuracy** and **reduces risk** by making the work tangible and manageable.
- **Enhanced Traceability:** The structure enhances **traceability**, ensuring every small task directly contributes to a prioritized user goal.
- **Incremental Value Delivery:** It allows the team to deliver **value incrementally** and gather early feedback, which is the core principle of agile development.

## Additional Sections:

### 1. Iteration/Sprint Planning

#### Sprint 1:

The screenshot shows the Azure DevOps Boards interface for the TeamPulse Project. The left sidebar navigation includes: Overview, Boards, Work items, Boards, Backlogs, Sprints (selected), Queries, Delivery Plans, Analytics views, Repos, Pipelines, Test Plans, and Artifacts. The main area displays the TeamPulse Project Team backlog under the Backlog tab for Sprint 1. The backlog table has columns for Order, Title, State, Assigned To, and Tags. The backlog items are:

Order	Title	State	Assigned To	Tags
1	> User: Secure Account Login	● Resolved	JAS M	Front... ...
2	> Manager: View Team Velocity KPI	● Resolved	JAS M	Analy... ...
3	> Executive: View Multi-Project Burndown.	● Resolved	JAS M	Analy... ...
4	User: View Personal Task Summary	● Closed	JAS M	Front... ...
5	Manager: Assign/Change User Roles	● Closed	JAS M	Back... ...
6	> Admin: Create User Accounts	● Closed	JAS M	Back... ...
7	> Project Lead: Create & Define Sprints	● Active	JAS M	Back... ...

To the right of the backlog, a planning board shows four sprints:

- Sprint 1:** Planned Effort: 200, 10/24/2025 - 10/30/2025 (7 tasks)
- Sprint 2:** Planned Effort: 40, 10/30/2025 - 11/3/2025 (2 tasks)
- Iteration 1:** No work scheduled yet
- Iteration 2:** No work scheduled yet

A planning overlay at the top right indicates the period from October 24 to October 30, with 4 work days remaining.

# Sprint 1 Board:

The screenshot shows the Azure DevOps Boards interface for the 'TeamPulse Project Team'. The board is divided into four columns: New, Active, Resolved, and Closed. Each column contains a list of user stories with their respective story points, assignees, and tags.

New	Active	Resolved	Closed
+ New item	<p><b>303</b> Project Lead: Create &amp; Define Sprints ● Active ● JAS M Story Points 20 Backend Planning 2/3</p>	<p><b>299</b> User: Secure Account Login ● Resolved ● JAS M Story Points 30 Frontend Security 3/4</p>	<p><b>302</b> User: View Personal Task Summary ● Closed ● JAS M Story Points 30 Frontend Usability 2/2</p>
	<p><b>300</b> Manager: View Team Velocity KPI ● Resolved ● JAS M Story Points 30 Analytics Frontend Reporting 3/3</p>	<p><b>297</b> Admin: Create User Accounts ● Closed ● JAS M Story Points 30 Backend Frontend Security 3/3</p>	
	<p><b>301</b> Executive: View Multi-Project Burndown. ● Resolved ● JAS M Story Points 30 Analytics Frontend Reporting 3/3</p>	<p><b>298</b> Manager: Assign/Change User Roles ● Closed ● JAS M Story Points 30 Backend Database Security 3/3</p>	

## 2. Tags and Priorities

### User Stories (Priority and Tags)

#### Parent Feature: User Authentication & Role Management

- Admin: Create User Accounts | **P1** | Tags: **Frontend, Backend, Security**
- Manager: Assign/Change User Roles | **P1** | Tags: **Backend, Database, Security**
- User: Secure Account Login | **P1** | Tags: **Frontend, Security**

#### Parent Feature: Dashboard Analytics & KPIs

- Manager: View Team Velocity KPI | **P1** | Tags: **Frontend, Analytics, Reporting**
- Executive: View Multi-Project Burndown | **P2** | Tags: **Frontend, Analytics, Reporting**
- User: View Personal Task Summary | **P2** | Tags: **Frontend, Usability**

#### Parent Feature: Task & Sprint Management

- Project Lead: Create & Define Sprints | **P1** | Tags: **Backend, Planning**
- User: Update Task Status on Board | **P1** | Tags: **Frontend, Usability**
- Project Lead: Estimate Effort (Points/Hours) | **P2** | Tags: **Planning, Database**

#### Parent Feature: Team Chat & Notifications

- Team: Persistent Chat Sidebar | **P2** | Tags: **Frontend, Real-time**
- User: In-App Notifications | **P1** | Tags: **Frontend, Backend, Real-time**
- User: '@Mention' in Comments | **P2** | Tags: **Frontend, Usability**

Azure DevOps TeamPulse Project / Boards / Backlogs

### TeamPulse Project Team Backlog Analytics

Filter by keyword

Order	Type	Title	State	Story Points	Value Area	Iteration Path	Tags
1	Epic	TeamPulse - Project Management Dashboard	New		Business	TeamPulse Project	
2	Feature	User Authentication & Role Management	New		Business	TeamPulse Project	
3	User Story	User: Secure Account Login	Resolved	30	Business	TeamPulse Project\Sprint 1	Frontend Security
4	Task	Document password reset logic and flow	New			TeamPulse Project\Sprint 1	Documentation
5	Feature	Dashboard Analytics & KPIs	New		Business	TeamPulse Project	
6	User Story	Manager: View Team Velocity KPI	Resolved	30	Business	TeamPulse Project\Sprint 1	Analytics Frontend Reporting
7	User Story	Executive: View Multi-Project Burndown	Resolved	30	Business	TeamPulse Project\Sprint 1	Analytics Frontend Reporting
8	Feature	Task & Sprint Management	New		Business	TeamPulse Project	
9	User Story	Project Lead: Create & Define Sprints	Active	20	Business	TeamPulse Project\Sprint 1	Backend Planning Database
10	Task	Ensure work items can be assigned to the new s...	New			TeamPulse Project	Database Planning
11	User Story	Project Lead: Estimate Effort (Points/Hours)	Active	20	Business	TeamPulse Project\Sprint 2	Database Planning
12	User Story	User: Update Task Status on Board	Active	20	Business	TeamPulse Project\Sprint 2	Frontend Usability
13	Task	Develop API endpoint for status updates	New			TeamPulse Project	Backend
14	Task	Add task status change to history log	New			TeamPulse Project	Database
15	Feature	Team Chat & Notifications	New		Business	TeamPulse Project	
16	User Story	Team: Persistent Chat Sidebar	New	20	Business	TeamPulse Project	Frontend Real-time
17	Task	Design and implement the chat sidebar UI/UX	New			TeamPulse Project	Frontend
18	Task	Implement message storage and retrieval	New			TeamPulse Project	Database
19	User Story	User: In-App Notifications	New	30	Business	TeamPulse Project	Backend Frontend Reporting
20	Task	Develop the notification data model and API	New			TeamPulse Project	Database
21	Task	Create the in-app notification component and b...	New			TeamPulse Project	Frontend Real-time
22	User Story	User: '@Mention' in Comments	New	20	Business	TeamPulse Project	Frontend Usability
23	Task	Update notification service to specifically handle...	New			TeamPulse Project	Backend

Azure DevOps TeamPulse Project / Boards / Boards

### TeamPulse Project Team Board Stories

View as backlog

New	Active	Resolved	Closed
<b>306</b> Team: Persistent Chat Sidebar	<b>303</b> Project Lead: Create & Define Sprints	<b>299</b> User: Secure Account Login	<b>302</b> User: View Personal Task Summary
New	Active	Resolved	Closed
JAS M	JAS M	JAS M	JAS M
Story Points 20	Story Points 20	Story Points 30	Story Points 30
Frontend Real-time	Backend Planning	Frontend Security	Frontend Usability
1/3	2/3	3/4	2/2
<b>307</b> User: In-App Notifications	<b>305</b> Project Lead: Estimate Effort (Points/Hours)	<b>300</b> Manager: View Team Velocity KPI	<b>297</b> Admin: Create User Accounts
New	Active	Resolved	Closed
JAS M	JAS M	JAS M	JAS M
Story Points 30	Story Points 20	Story Points 30	Story Points 30
Backend Frontend Real-time	Database Planning	Analytics Frontend Reporting	Backend Frontend Security
1/3	2/2	3/3	3/3
<b>308</b> User: '@Mention' in Comments	<b>304</b> User: Update Task Status on Board	<b>301</b> Executive: View Multi-Project Burndown	<b>298</b> Manager: Assign/Change User Roles
New	Active	Resolved	Closed
JAS M	JAS M	JAS M	JAS M
Story Points 20	Story Points 20	Story Points 30	Story Points 30
Frontend Usability	Frontend Usability	Analytics Frontend Reporting	Backend Database Security
1/2	1/3	3/3	3/3

### 3.Acceptance Criteria

**For each user story, define short acceptance criteria:**

**Acceptance Criteria Table – TeamPulse Project**

Story ID	User Story	Acceptance Criteria (AC)
1.1	Admin: Create User Accounts	<ol style="list-style-type: none"><li>Only users with the 'Admin' role can access the user creation interface.</li><li>System validates that required fields (Name, Email, Password) are not empty.</li><li>A confirmation email is successfully sent to the new user upon creation.</li></ol>
1.2	Manager: Assign/Change User Roles	<ol style="list-style-type: none"><li>Managers can only assign roles of 'Manager' or 'User' (cannot elevate to Admin).</li><li>Role changes take effect immediately upon saving the user profile.</li><li>The Role drop-down selection defaults to the user's current role.</li></ol>
1.3	User: Secure Account Login	<ol style="list-style-type: none"><li>User is redirected to the main dashboard upon successful login.</li><li>User must receive a generic error message if login fails (e.g., "Invalid credentials").</li><li>Successful and failed login attempts are recorded for audit purposes.</li></ol>
2.1	Manager: View Team Velocity KPI	<ol style="list-style-type: none"><li>Dashboard displays the Velocity (Story Points/Sprint) metric accurately.</li><li>Data visualization shows the trend over the last 5 completed sprints.</li><li>Data is filtered to show results for the current project or team.</li></ol>
2.2	Exec: View Multi-Project Burndown	<ol style="list-style-type: none"><li>A dedicated view displays a burndown chart comparing ideal vs. actual remaining work.</li><li>Chart accurately aggregates and displays data from all selected ongoing projects.</li><li>Tooltips show the exact remaining work for any point on the chart.</li></ol>
2.3	User: View Personal Task Summary	<ol style="list-style-type: none"><li>A "My Work" widget lists all tasks assigned to the current user.</li><li>Tasks are prioritized and sorted by the closest due date.</li><li>Completed tasks are hidden by default, with a clear toggle to view them.</li></ol>

3.1	Lead: Create & Define Sprints	<ul style="list-style-type: none"> <li>1. Interface allows setting Sprint Start Date, End Date, and Name.</li> <li>2. Sprint dates are validated to prevent overlap with existing sprints.</li> <li>3. The new sprint appears immediately in the iteration path selection for work items.</li> </ul>
3.2	User: Update Task Status on Board	<ul style="list-style-type: none"> <li>1. Tasks can be dragged and dropped between all active Kanban columns.</li> <li>2. Dragging a task updates its status field in the database immediately.</li> <li>3. The status change is visible in the task's history log.</li> </ul>
3.3	Lead: Estimate Effort (Points/Hours)	<ul style="list-style-type: none"> <li>1. Story Points field is visible and editable on the Story work item form.</li> <li>2. Remaining Work (hours) field is visible and editable on the Task work item form.</li> <li>3. The capacity view correctly sums the 'Remaining Work' for all tasks in a sprint.</li> </ul>
4.1	Team: Persistent Chat Sidebar	<ul style="list-style-type: none"> <li>1. A real-time chat sidebar is accessible from all primary dashboard views.</li> <li>2. Users can send and receive text messages with immediate display.</li> <li>3. The chat history for the last 24 hours is preserved upon page refresh.</li> </ul>
4.2	User: In-App Notifications	<ul style="list-style-type: none"> <li>1. A bell icon displays a badge count of unread notifications.</li> <li>2. Notifications trigger for new assignments or status changes to a user's task.</li> <li>3. Clicking the notification icon opens a list where items are marked as 'read' upon viewing.</li> </ul>
4.3	User: '@Mention' in Comments	<ul style="list-style-type: none"> <li>1. Typing '@' in a comment field activates an autocomplete list of team members.</li> <li>2. The tagged user receives a specific '@mention' notification.</li> <li>3. The tag in the comment is clickable, linking to the mentioned user's profile.</li> </ul>

## 4. Definition of Done (DoD)

### Definition of Done (DoD) for TeamPulse

For the TeamPulse Project, a work item (User Story or Task) is marked as Done only when it has satisfied all quality gate requirements. Specifically, this means the code has been peer-reviewed and approved by at least one other developer, all automated unit and integration tests are passing, and the feature meets all Acceptance Criteria during dedicated QA testing. Finally, any relevant technical or user documentation must be updated and approved, and the functionality must be successfully deployed and confirmed stable in the Staging environment. This comprehensive definition ensures high quality and readiness for production release.

DoD is comprehensive, covering:

1. **Code Quality:** Peer Review
2. **Testing:** Automated Tests and QA Acceptance
3. **Documentation:** Updated Technical/User Docs
4. **Deployment Readiness:** Stable in Staging Environment

## 5. Burndown Chart

