Decomposed Product Backlog Items for Task Management

Original PBI

As a project manager, I want to be able to assign tasks to team members within the project management tool so that I can efficiently distribute workload and track progress.

Original Acceptance Criteria
- **Scenario: Assigning a task to a team member**
  - GIVEN I am logged in as a project manager
  - WHEN I create a new task and select a team member from a dropdown list
  - THEN the task is assigned to the selected team member and saved in the system.
- **Scenario: Notifying the assigned team member**
  - GIVEN I have assigned a task to a team member
  - WHEN the assignment is saved
  - THEN the team member receives an email notification with the task details.
- **Scenario: Viewing task assignment history**
  - GIVEN I am viewing a task in the project management tool
  - WHEN I access the task history
  - THEN I see a log of all assignments, including who was assigned and when.

Decomposed PBIs

The original PBI is broken down into three smaller, independent user stories to address specific aspects of the functionality: task assignment, email notification, and assignment history tracking. Each user story is granular, focused, and suitable for development within a sprint.

PBI 1: Task Assignment Interface

As a project manager, I want to select a team member from a dropdown list when creating a task so that I can assign the task to the appropriate person.

Acceptance Criteria:
- **Scenario: Displaying team members in a dropdown**
  - GIVEN I am logged in as a project manager and creating a new task
  - WHEN I access the assignee field
  - THEN I see a dropdown list populated with all active team members' names.
- **Scenario: Saving a task assignment**

- – GIVEN I am creating a task and have selected a team member from the dropdown
- – WHEN I save the task
- – THEN the task is assigned to the selected team member and stored in the database.
- **Scenario: Handling empty team member list**
  - – GIVEN I am creating a task and no team members are available
  - – WHEN I access the assignee field
  - – THEN the dropdown displays a message like "No team members available" and the save button is disabled.

PBI 2: Task Assignment Notification

As a project manager, I want the system to send an email notification to the assigned team member so that they are informed of their new task.

Acceptance Criteria:
- **Scenario: Sending email notification on task assignment**
  - – GIVEN I have assigned a task to a team member
  - – WHEN the task is saved
  - – THEN an email is sent to the team member's registered email address with the task title, description, and due date.
- **Scenario: Email content validation**
  - – GIVEN a task has been assigned
  - – WHEN the email notification is sent
  - – THEN the email contains a clear subject (e.g., "New Task Assigned: [Task Title]") and a link to view the task in the tool.
- **Scenario: Handling email delivery failure**
  - – GIVEN the email service is unavailable
  - – WHEN a task is assigned
  - – THEN the system logs the failure and displays a warning to the project manager without interrupting the task assignment.

PBI 3: Task Assignment History

As a project manager, I want to view the assignment history of a task so that I can track who was assigned and when.

Acceptance Criteria:
- **Scenario: Displaying task assignment history**
  - – GIVEN I am viewing a task in the project management tool
  - – WHEN I select the history tab or section
  - – THEN I see a list of all assignment events, including the team member's name, date, and time of assignment.

- **Scenario: Sorting assignment history**
    - GIVEN I am viewing the task assignment history
    - WHEN I sort the history by date
    - THEN the list is ordered chronologically, with the most recent assignment at the top.
- **Scenario: Handling tasks with no assignment history**
    - GIVEN I am viewing a task that has never been assigned
    - WHEN I access the history section
    - THEN I see a message like "No assignment history available."

Rationale for Decomposition

- **Granularity**: Each user story focuses on a single, well-defined piece of functionality (interface, notification, history), making it easier to develop, test, and deliver within a sprint.
- **Independence**: The decomposed PBIs can be worked on independently by different developers or teams, reducing dependencies within a sprint.
- **Clarity**: Each PBI has specific acceptance criteria that ensure the functionality is testable and meets user needs.
- **Incremental Delivery**: Completing these smaller PBIs incrementally delivers value to the project manager (e.g., assigning tasks first, then adding notifications, then history tracking).