Final Project Overview and Scenario

Overview

Now that you have been equipped with the knowledge and skills to create sprint plans, you will have the opportunity in this final project to practice and apply it by creating stories, assembling them into a product backlog, refining them to produce a sprint plan, and perform a mock sprint that involves moving stories across your kanban board as your team would do in a real sprint.

Final project scenario

In this scenario, you will play the roles of a product owner, scrum master, and developer. As a product owner, you will create stories for your team and organize these stories into a product backlog. As a scrum master, you will create a sprint milestone and ensure that a subset of the stories is ready to be placed in a sprint plan. As a developer, you will create the sprint backlog and execute some of the stories by moving them across the kanban board in a simulated sprint.

Your team has been tasked with developing the back-end product catalog for an e-commerce website. Stakeholders require the ability to create, retrieve, update, and delete products from the catalog, along with features like indicating product likes and hosting on a cloud environment with automated deployments.

Your team will use a kanban board to create a backlog and sprint plan for this work. As the product owner, you will drive the process by leveraging the skills learned in the lessons and labs to create a new GitHub repository and kanban board and fill the kanban board with issues that will become user stories.

> -If you have opted to use GitHub Projects for your Kanban board, please continue using it for your final project. Alternatively, if you have used Zenhub to create a Kanban board, you may use it for your final project as well.

Note:

1. In this lab, make sure all your updates — including user stories, product backlog items, sprint plan, and Kanban board setup — are completed and saved properly.
2. Commit your updated `user-story.md` file on your public repository.
3. Please save the links and capture screenshots as mentioned in the respective tasks.
4. As mentioned in the *About Final Project*, you can submit your project deliverables through either Option 1: AI-Graded Submission and Evaluation or Option 2: Peer-Graded Submission and Evaluation.
5. **For Option 1: AI-Graded Submission and Evaluation:**
    - Submission requires the updated `user-story.md` github link of you public repository and screenshots.
6. **For Option 2: Peer-Graded Submission and Evaluation:**
    - Submission requires your public kanban baord URL and screenshots.

Stakeholder requirements

Following are the requirements from your stakeholders that you should use to create the user stories in Kanban board.

1. Need the ability to create a product in the catalog.
2. Need the ability to retrieve a product from the catalog.
3. Need the ability to update a product in the catalog.
4. Need the ability to delete a product from the catalog.
5. Need the ability to **Like** a product in the catalog.
6. Need the ability to **Dislike** a product in the catalog.
7. Need the ability to list all products in the catalog.
8. Need the ability to query a subset of products in the catalog.
9. Must be hosted in the cloud.
10. Must have automation to deploy new changes to the cloud.

To help you finish the final project, we have provided a list of instructional tasks to guide you:

Instructional tasks

1. Create a new GitHub repository called `agile-final-project` and ensure it is public.
2. Create a **Project** in your GitHub repository and name it **Final Project**.

   Assesment
   For Option 1 AI-Graded Submission: Take a screenshot of the public Kanban board and save it as `01-kanban-board.jpeg` or `01-kanban-board.png`.
3. Create an issue template for the new repository similar to the labs.
4. Create issues for the stakeholder requirements listed above (10 in total). Fill in the **As a… I need… So that…** section of the template.
5. Move requirements 7 and 8 issues into the **Icebox**.
6. Move the remaining issues into the **Product Backlog**.

   Assesment
   For Option 1 AI-Graded Submission: Take a screenshot showing all labeled stories across columns and save it as `02-product-backlog.jpeg` or `02-product-backlog.png`.
7. Conduct a **Backlog Refinement** meeting and rank the Product Backlog to match the requirements order.
8. Update the top 5 stories in the Product Backlog with acceptance criteria following the Gherkin **Given… When… Then…** syntax.

   Assesment
   For Option 1 AI-Graded Submission: Task 3: Copy and Save the URL of your `.github/ISSUE_TEMPLATE/user-story.md` file for submission.
9. Create a **technical debt** label.
10. Add labels of either **enhancement** or **technical debt** to all stories in the Product Backlog.
    Label the stories created in step 9 and 10 as technical debt, and label all other stories as enhancement.

    Assesment
    For Option 1 AI-Graded Submission: Take a screenshot showing stories labeled as technical debt and enhancement and save it as `04-labeled-technical-debt.jpeg` or `04-labeled-technical-debt.png`.
11. Create a **Sprint milestone** with a duration of **2 weeks**, named **Sprint**.

    Assesment
    For Option 1 AI-Graded Submission: Take a screenshot showing the created Sprint or Milestone and save it as `05-sprint-created.jpeg` or `05-sprint-created.png`.

▼ Follow Steps for Option 1: AI-Graded Submission - Task 5

1. **GitHub Kanban Board:**
   Click the three dots in the top-right corner → **Settings** → **Sprint**, then take a **screenshot**.
2. **ZenHub Kanban Board:**
   Click **Edit Workspace** → **Edit Milestone**, then take a **screenshot**

12. Conduct a **Sprint Planning** meeting. Add the top 4 stories to the sprint, assign them to the sprint milestone, and assign story point estimates. Move these 4 stories to the **Sprint Backlog**.

Assesment
For Option 1 AI-Graded Submission: Take a screenshot showing estimates assigned and save it as `06-estimate-assigned.jpeg` or `06-estimate-assigned.png`.

13. Simulate a sprint by assigning the top story to yourself. Move it to the **In Progress** column.

14. Move the story to **Review/QA**. Take the next story from the Sprint Backlog, assign it to yourself, and move it to the **In Progress** column.

15. Move the story in **Review/QA** to **Done**. Move the story from **In Progress** to **Review/QA**. Take the next story off the Sprint Backlog, assign it to yourself, and move it to the **In Progress** column.

    Assesment
    For Option 1 AI-Graded Submission: Take a screenshot showing all stories assigned to yourself and save it as `07-assigned-yourself.jpeg` or `07-assigned-yourself.png`.

16. Move the story in **Review/QA** to **Done**. Leave the story in the **In Progress** column where it is. This marks the end of the sprint.

    Assesment
    For Option 1 AI-Graded Submission: Take a screenshot showing sprint assignment for completed stories and save it as `08-sprint-assigned.jpeg` or `08-sprint-assigned.png`.

17. Ensure your burndown chart displays correctly.

    Assesment
    For Option 1 AI-Graded Submission: Take a screenshot of the Burndown Chart and save it as `09-burndown-chart.jpeg` or `09-burndown-chart.png`.

18. Share the URL of your kanban board for peer review.

Final Project Submission Checklist

Follow the checklist below to verify that your project meets all requirements before submission.

Submit your work through either Option 1: AI-Graded Submission and Evaluation or Option 2: Peer-Graded Submission and Evaluation, depending on the submission path you choose for project evaluation.

Follow the submission checklist below if you are proceeding with **Option 1: AI-Graded Submission and Evaluation**:

Your final grade will be based on the following tasks, with a total of 20 points possible:

- **Task 1:** Submit a screenshot named **01-kanban-board.jpeg** or **01-kanban-board.png** of the final project Kanban board.
- **Task 2:** Submit a screenshot named **02-product-backlog.jpeg** or **02-product-backlog.jpeg** showing that labels have been added to all stories across the Product Backlog, Sprint Backlog, In Progress, Review/QA, and Done columns.
- **Task 2:** Submit the public GitHub repository URL of your user-story.md file located in the .github/ISSUE_TEMPLATE folder.
  - A .github/ISSUE_TEMPLATE folder is created in the repository and includes the user-story.md file.
  - The user story follows the format: “As a… I need… So that…”.
  - Acceptance criteria are written using Gherkin syntax: “Given… When… Then…”.
- **Task 4:** Submit a screenshot named **04-labeled-technical-debtjpeg** or **04-labeled-technical-debt.png** showing that stories for requirements 9 and 10 are labeled as Technical Debt.
- **Task 5 :** Submit a screenshot named **05-sprint-created.jpeg** or **05-sprint-created.png** showing that a Sprint or Milestone is created with a title.
- **Task 6:** Submit a screenshot named **06-estimate-assigned.jpeg** or **06-estimate-assigned.png** showing that you assigned estimates to all the stories across the “In Progress” and “Done” columns.
- **Task 7:** Submit a screenshot named **07-assigned-yourself.jpeg** or **07-assigned-yourself.png** showing that all the stories are assigned to yourself.
- **Task 8:** Submit a screenshot named **08-sprint-assigned.jpeg** or **08-sprint-assigned.png** showing that a Sprint or Milestone has been assigned to all the stories across the “In Progress” and “Done”.
- **Task 9:** Submit the screenshot named **09-burndown-chart.jpeg** or **09-burndown-chart.png** of the Burndown chart for the Sprint or Milestone.

Follow the submission checklist below if you are proceeding with **Option 2: Peer-Graded Submission and Evaluation**:

- **Task 1:** Submit the URL for your final project Kanban board.
- **Task 2:** Put a `github/ISSUE_TEMPLATE` in the repository.
- **Task 3:** Follow the story template — “As a… I need… So that…”.
- **Task 4:** Add acceptance criteria using the Gherkin “Given… When… Then…” syntax.
- **Task 5:** Add labels to all stories, starting with the Product Backlog.
- **Task 6:** Assign estimates to all stories, starting with the Sprint Backlog.
- **Task 7:** Create a Sprint or Milestone with a title.
- **Task 8:** Assign the Sprint or Milestone to the stories in the Sprint Backlog.
- **Task 9:** Assign all stories to yourself and move them to **In Progress**.
- **Task 10:** Create a **Burndown chart** for the Sprint or Milestone.
- **Task 11:** Label stories for requirements 9 and 10 as **Technical Debt**.

Author(s)

Zehra Afzal
Rajashree Patil