UDACITY

Digital Project Management



From Methodology to Execution

Project Scenario

Overview

You are a project manager for Yosemite, an eCommerce company that integrates brick-and-mortar stores onto its platform for a fee. You have been assigned to work with The Stefano Shop, a family-run business that had been a local success but was struggling to stay open. The primary business goal is to digitize the store's operations and sales and complete this project in a maximum of 12 weeks.

Integrating The Stefano Shop into Yosemite means building the following features:

- A storefront on the platform,
- A social media integration, and
- A recommendation engine.

The Stefano family, which consists of Papa Stefano, Mama Stefano, and Junior Stefano, will also require the training and knowledge to operate their digital store once it has been developed.

Project Budget

The Yosemite storefront, training, and documentation can be delivered for $15,000 - a tight budget for the Stefanos. So Papa Stefano asked that you include a cost-benefit analysis in the project scope to reassure him this is a good investment.

For the cost-benefit analysis, your research shows:

- The eCommerce industry **discount rate is 20%**
- Yosemite promises a **$36,000 increase** in revenue
- The **cost** of the project is **$15,000**

Yosemite teams and tasks

Aliyah - Engineering Manager

Tasks:

- Build storefront
- Build social media integration
- Build recommendation engine.
- Each task takes two weeks of work.
- Each task involves design, build, test, and release.

Moe - Vendor Manager

Tasks:

- Inputting all inventory data after the storefront is delivered. It takes one week to add the inventory data.
- Onboarding and training Stefano's before the store goes live. It takes one week to train them.
- Create a custom sales report that is automatically sent to Stefanos during or after the recommendation engine is released. It takes one week to set up the reporting.

Taylor - Marketing Manager

Tasks:

- Creating social media channels and handing them off to Stefano's. It takes a week, but this task must occur before the social media integration by the Engineering team.

The Stefano Family

Papa Stefano has a strong presence in the family business but listens to Mama Stefano when making business decisions. He manages the floor and is averse to new technology. While he understands it's time to modernize the shopping experience and wants to gain new customers, he's wary of going over budget.

Mama Stefano keeps spreadsheets to track inventory and has convinced Papa to work with Yosemite. Her primary focus is on back-end administrative tasks of the business. Mama is more concerned about preparing the store for Christmas shoppers in time.

Junior Stefano is a high school student still learning about the family business. Junior creates social media posts on her own accounts for the store. Sees value in taking full advantage of Yosemite's services.

Yosemite team

Moe is the Yosemite Vendor Manager; he tends to be enthusiastic about upselling customers with additional services, not mindful of budget. Moe primarily focuses on promoting and coordinating Yosemite's services, which is part of the overall project. Additionally, this project is one of many he works on.

Aliyah is the Yosemite Engineering Manager, experienced and skilled. She prefers to work in Agile sprints but understands that not all customers can keep up with that pace. Her expertise in developing and implementing technical solutions enables her to guide the project's timeline and execution strategy, making her vital in determining the project's overall direction and progress.

Taylor, the Yosemite Marketing Manager, tends to take on too many assignments and can delay completing tasks. Taylor often needs to be informed of their assignments ahead of time. His role and contributions are limited to supporting the implementation of this project's marketing plans.

Lou is the Yosemite Small Business Program Manager and oversees all accounts under the Small Business category. You report directly to Lou. Lou only keeps a high-level overview of this project and its progress. He wants to showcase your project to the entire company if all goes well and expect regular communication, especially when things go wrong.

Step One: Project Scope

Objectives, milestones, and resources

Describe the business objectives of the project in 1-2 sentences

The primary business objective is to help The Stefano Shop transition from a brick-and-mortar business to a fully digital platform by integrating their store into Yosemite's eCommerce platform. This includes building a storefront, integrating social media, and implementing a recommendation engine to drive online sales, while ensuring the family receives proper training to manage their new digital operations.

List at least 3 project milestones

Completion of Storefront Development: Launch the digital storefront on the Yosemite platform, allowing customers to view products and make purchases.

Social Media Integration: Successfully integrate the shop's social media accounts (e.g., Instagram, Facebook) with the platform to drive traffic and engagement.

Recommendation Engine Implementation: Implement and test a recommendation engine to suggest products to customers based on their browsing history and preferences.

List the resources you have access to as the project manager, including the budget

1. **Team**: Developer - Aliyah, Marketing - Taylor, Vendor and Training Specialist - Moe
2. **Budget**: A total budget of $15,000 for development, training, and platform integration.
3. **Tools**: Yosemite’s platform, social media accounts, and development tools.
4. **Stakeholders**: Collaboration with the Stefano family for input and training.

Cost-Benefit Analysis

Write out the formula for the cost-benefit analysis

Present Value of Benefit= $\frac{\text{Future Benefit}}{(1+\text{Discount Rate})^n}$

Show the steps to get the cost-benefit ratio

Step 1: Calculate the Present Value of the Expected Benefits]

Future Benefit is the amount you expect to receive in the future (e.g., projected revenue or sales).

Discount Rate is the rate at which future benefits are discounted to present value (e.g., 7% = 0.07).

n is the number of time periods (e.g., the number of years the benefit will be received).

Step 2: Calculate the Present Value of the Costs

Future Benefit = $36,00 (e.g., from sales or revenue)
Discount Rate = 20% (0.20)
n = 1 year (since we're calculating for one year)

Step 3: Calculate the Cost-Benefit Ratio (CBR)

By dividing the present value of benefits by the present value of costs:

CBR = $\frac{\text{Present Value of Benefits}}{\text{Present Value of Costs}}$

$\frac{36{,}000}{1+0.20)1}$ = $30,000

$\frac{\$30{,}000}{15{,}000}$ = 2

State whether the investment is positive or negative

By using a discount rate of 20% and a budget of $15,000, the Cost-Benefit Ratio is 2.08, indicating that the project is profitable with benefits exceeding costs.

Timing and Methodology

What are the **minimum and the maximum** number of weeks required to complete the project?

Minimum: (8 weeks)

If the team can work in parallel, here's how the tasks could be distributed:

Storefront development: 4 weeks
Social media integration: 2 weeks (could overlap with storefront development)
Recommendation engine: 2 weeks (could overlap with storefront development)
Training: 1 week (can start once the storefront is ready)

Maximum: (12 weeks)

The time required to complete the tasks that cannot be done simultaneously. In this case:

Storefront development: 4 weeks
Social media integration: 2 weeks
Recommendation engine: 3 weeks
Training: 2 weeks (starting after development)

What methodology do you propose to use for organizing the project: **Waterfall or Agile**? Explain your answer in 2-3 sentences.

For this project, I propose using the Agile methodology. Agile is ideal because it allows for flexibility and iterative progress, which is crucial for integrating multiple features (storefront, social media, recommendation engine) while working closely with the client (The Stefano family) to adapt to their needs. Additionally, Agile's emphasis on short sprints and regular feedback will ensure that the project stays on track to meet the 12-week deadline while allowing for continuous improvements and adjustments.

Based on your chosen methodology, list the meetings you need to schedule.

1. Sprint Planning Meeting
2. Daily Standups (Daily Scrum)
3. Sprint Review
4. Sprint Retrospective
5. Backlog
6. Client Check-In/Status Update
7. Training Sessions

Step Two:

Identify Your Stakeholders and Team

Power-Influence Classifications

You need to classify each member of the Stefano family and Yosemite team by their power level and influence on the project. You are already provided with assumptions/risks for each person.

Take a look at the Cast of Characters in the classroom or the 6th and 7th slide to learn more about each person.

As you learned in the *Setting up Your Project/Stakeholder's Power lesson*, this chart has **only a "High" or "Low" classification**. Below is a reminder of what each term means.

Power Level: The level of authority and decision-making power that a person has over a project. You could ask: **Can this person make decisions about the project?**

Influence: A person's ability to influence decision-makers through their personality style, interpersonal skills, and relationship with those in authority. You could ask: **Can this person influence a decision-maker?**

Power-Influence Classification Grid

As you learned in the *Setting up Your Project/Stakeholder's Power lesson*, this chart has **only a "High" or "Low" classification**.

Stakeholder	Power Level	Influence Level	Assumptions and Risks
Papa Stefano	HIGH	LOW	• Decides for the family • Worries about the budget
Mama Stefano	LOW	HIGH	• Influences the family decisions • Concerned about timing
Junior Stefano	LOW	LOW	• Helps out in the business • Uses own account for the store
Aliyah (Engineering Manager)	HIGH	HIGH	• Leads all development work • Final decisions with engineering are hers
Moe (Vendor Manager)	LOW	LOW	• Likes to upsell • Helps out in promotions • Only one of his many projects
Taylor (Marketing Manager)	LOW	LOW	• Can delay the tasks • Limited role for the project
Lou (Program Manager)	HIGH	LOW	• Only high-level overview • Can help when things go wrong
Me (Project Manager)	LOW	LOW	• Executes the project in a timely manner • Follows the decision makers

HINT: Take a look at the Cast of Characters in the classroom or the 6th and 7th slide to learn more about each person.

RACI Chart

You need to fill out a RACI chart for your team, as you learned in the *Setting up Your Project/Evaluating Team's Competency* lesson. In the case of this project, it is **usually the same person who is Responsible are Accountable for a task**, since managers are working with their teams who are not part of the project.

Responsible**:** Stakeholders who will be responsible for ***executing actual tasks***.

Accountable**:** The stakeholder - usually a manager - who has the duty of ***approving*** whether a task is truly being completed; there can only be one accountable person per task.

Consult**:** Anyone who has valuable insight necessary to successfully execute a task; there can be more than one consult for each task.

Informed**:** A stakeholder who expects to receive information and updates about a particular task. Most stakeholders will fall into this category.

RACI Chart Sample Solution

There are questions you can ask that help you figure out the RACI chart. Let's do that for the first task: **Build storefront**.

Responsible: Who in the team builds the storefront? **Aliyah**, as she is the engineering manager.

Accountable: Who can approve the finished storefront? **Aliyah**, since she is the one who knows the technical problems.

Consult: Who can provide valuable insight while building the storefront? **Moe**, as he is the vendor manager, and the storefront is for them.

Informed: Who needs to be kept informed about progress on this task? It can be all other people (**Me, Lou, Taylor**) as other tasks depend on this one.

RACI Chart

Take a look at the **5th slide:** "Yosemite teams and tasks," for information. Each manager has a team that works with them; therefore, they are Accountable AND Responsible for the work they do. Unlike them, you have a boss who needs to approve of your work.

Tasks	Me, Project Manager	Lou, Program Manager	Taylor, Marketing Manager	Moe, Vendor Manager	Aliyah, Engineering Manager
Build storefront	I	I	I	C	A/R
Input Inventory Data	I	I	C	A/R	C
Build social media integration	I	I	C	I	A/R
Train Stefano's on platform	I	I	I	A/R	I
Create social media channels	I	I	A/R	I	I
Build recommendation engine	I	I	C	C	A/R
Create Custom Sales Report	I	A	I	R	I
Engage stakeholders	R	A	I	I	I

Step Three:
Create a Project Plan

Create a Project Plan

In this step, you will reference the project scope, stakeholder analysis, and RACI chart to create a project plan for the proposed methodology.

Build a model of your plan for managing the Yosemite project. It should be a snapshot of the planning phase of the project. You can use the dates in your current year when creating the project plan.

Display this model in one of the two frameworks,

1. A Gantt chart for Waterfall ***OR***
2. a Scrum board for Agile.

After you pick one model, be sure to **include the information outlined in your project scope, stakeholder analysis, and RACI chart**.

Instructions based on your method

Waterfall Project Plan

- You need to create a Gantt chart
- Implement everything from the Project Plan Details on slide 21
- Follow the instructions on slide 22
- Skip slides 23-25, go to slide 26 and continue the project.

Agile Project Plan

- You need to create a Trello board
- Implement everything from the Project Plan Details on slide 21
- Skip slide 22
- Follow the instructions on slide 23-25

Project Plan Details

In the project plan you should include at least the following tasks:

- **All tasks from the RACI Chart**
- At least **3 Status Reports** - where you think it is appropriate
- Follow the additional instructions for your plan depending on your method

You can assume the status reports take one day, and the documentation tasks 1-3 days.

Pay attention to:

- It is a snapshot of the planning phase of the project
- You can only assign tasks to Yosemite employees
- The date of the tasks must correlate with the project plan
- All tasks must have a start date and due date
- All tasks must be assigned to the relevant person

Additional Instructions for the Waterfall Project Plan

If you choose a Waterfall project plan in Step 2, you should include additional tasks related to stakeholder engagement, team management, and closure activities.

You have to include **at least the following additional tasks:**

- A kickoff meeting
- Closure meeting

Create a Gantt chart for your project by filling in the Gantt Chart Template provided in the classroom. Export or save the spreadsheet as a .xls or .xlsx file. Add this spreadsheet to your project submission folder.

Additional Instructions for the Agile Project Plan

If you choose an Agile project plan in Step 2, you should **organize the columns using Scrum phases:**

- Sprint Planning
- Backlog
- Work In Progress
- QA
- Release
- Sprint Review

Include relevant tasks that occur in the initial and end phases of a Sprint. You have to include **at least the following additional tasks:**

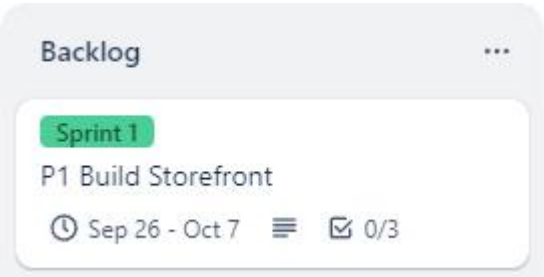
- Sprint planning task for each sprint
- Sprint review task for each sprint

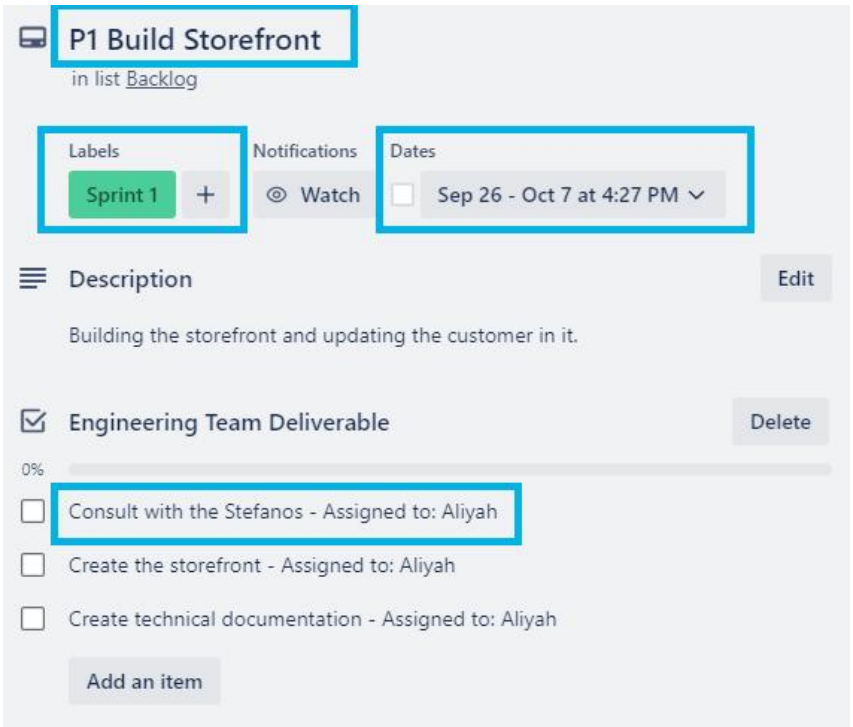
Additional Instructions for the Agile Project Plan - Trello

Pay attention to:

- The columns are based on Scrum phases
- Include relevant tasks to initial and end phases of a Sprint
- Label the cards according to the Sprint they belong to (e.g. Sprint 1, Sprint 2…)
- Don't forget to add dates to each card
- Add assignees to each task

Trello Card Example





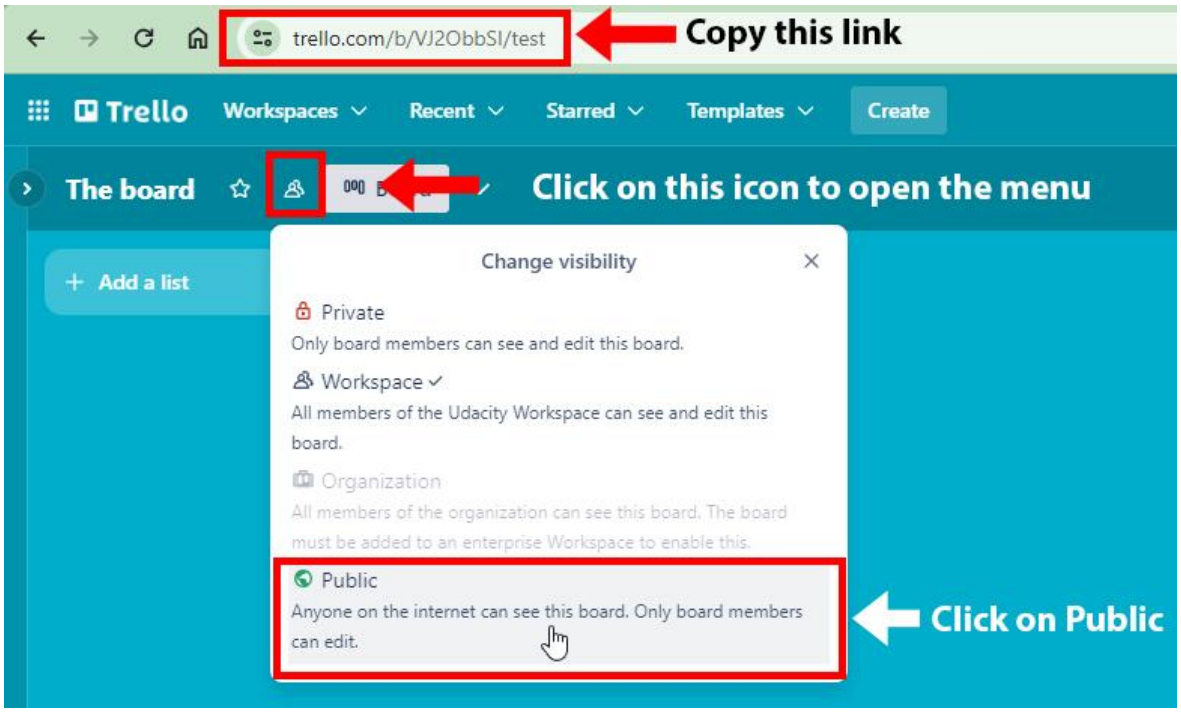
Additional Instructions for the Agile Project Plan

Create a new Scrum board on Trello and make it public.

- To make your board public, click on the Change Visibility icon and select Public > "Yes, make board public"
- Copy the URL from your browser - it is the same as you are viewing the board with

Paste your public Trello URL here

To test your link, paste your link into an incognito browser window and open it. If it opens your board directly, your link is good.



Step Four:
Risk and Response

Risk Response Strategies

Here are the six types of response strategies you can choose from:

- **Avoid** relates to adjusting plans so it prevents the risk from ever happening to or having an impact on your project. This strategy essentially makes the risk irrelevant to your project.
- **Transfer** is the act of moving the risk to a different recipient by adding into the project plan a way to direct the risk in a certain direction.
- **Mitigate** relates to proactively adjusting plans or acquiring new resources to lessen the potential consequences as much as possible or preparing for the impact of the risk.
- **Accept** involves passively acknowledging that it will happen, or creating thresholds that trigger actions when the risk causes a certain type or level of problem.
- **Escalate** is the act of presenting the risk to someone with the right authority or skillset to properly respond. In this case, the digital project manager cannot sufficiently do so.
- **Exploit** involves creating an opportunity or solution out of a risk to take advantage of a problem's impact.

Risk Scenario 1

The Stefano Shop project relies on the customer providing Yosemite with information on all products in its inventory. **The Stefanos did not deliver the inventory list by the day you planned** to put inventory data into the system. They promised to deliver the inventory information in a few more days.

Your task is to:

- Analyze the above risk and describe how this affects the project. Address at least two different critical points of risk, like scope, cost, schedule, quality, stakeholder relationships, etc.
- Choose a risk response strategy (see the valid strategies on the "Response Strategies" slide.)
- Explain how you would apply the strategy in 3-5 sentences, including how it would impact the customer.
- Fill out the Status Report for this scenario

Risk Scenario 1 Response

How might this risk affect the project?	
Schedule Impact: The delay in receiving the inventory list will directly affect the timeline for inputting inventory data, causing a domino effect on subsequent tasks such as testing, training, and launching the storefront. This could result in the project exceeding its planned completion date. **Stakeholder Relationships: This delay could harm the trust and collaboration between the customer and the project team. The Stefanos may perceive the delay as a failure on the project team's part, even if it stems from their own lack of timely action, leading to dissatisfaction and strained relationships.**	
Selected risk response strategy:	**Mitigate**
Explain below how you would apply the strategy.	
To mitigate this risk, I would proactively adjust the project timeline and work on parallel tasks that do not depend on the inventory data, such as progressing with the storefront setup or creating social media channels. **Additionally, I would assist the Stefanos by providing them with tools or templates to simplify their inventory submission process and establish a new, clear deadline. This approach ensures that the project remains on track while minimizing the impact of the delay.** **Impact on the customer:** **This strategy demonstrates professionalism and collaboration, showing the Stefanos that their concerns are being addressed. By offering support, it also reduces their workload and stress, fostering trust and ensuring a smooth process for delivering the project successfully**	

Status Report

You need to fill out the status report on the next page. It has to be based on Risk Scenario 1, which you can find in Slide 28. You also need to use details from the project scenario, which you can find in Slide 3.

The Status Report date is when the Vendor Manager was scheduled to begin the “Input Inventory Data” task in your project plan.

Risk Scenario 1 - Status Report

The Stefano Shop Digital Integration	Yosemite eCommerce Solutions
Raymond Sgambati	December 12, 2024

Project Summary

Write a summary of the project scope in two to three sentences.

Project Highlights/Blockers

Highlights:

- The storefront setup has been initiated and is progressing as planned.
- Training plans for the Stefano family have been outlined and are ready for execution.

Blockers:

- The inventory data required for input has not been delivered by the Stefanos as scheduled. This delays the "Input Inventory Data" task, potentially impacting subsequent milestones such as testing and finalization.

Project Health Check

Scope	Status	Tasks: Completed/Pending
Time	At Risk	**Completed:** • Storefront setup started. **Pending:** • Input Inventory Data task.
Cost	On Track	**No additional costs incurred at this stage.**
Quality	On Track	**Overall project quality is being maintained.**

Risk Scenario 2 - Status Report

The Stefano Shop Digital Integration	Yosemite eCommerce Solutions
Raymond Sgambati	Janurary 12, 2024

Project Summary

The project integrates The Stefano Shop into Yosemite's eCommerce platform, featuring a storefront, social media integration, and a recommendation engine. Training will also be provided to the Stefano family for managing their digital store. The project timeline is set at 12 weeks, with tasks aligned to deliver high-quality outcomes.

Project Highlights/Blockers

Highlights:

- Storefront setup has been successfully initiated and is progressing well.
- Training plans for the Stefano family are prepared and scheduled to begin after system integration.

Blockers:

- The recommendation engine task requires additional time and cost due to unforeseen complexity. This delays the task by four weeks and adds $3,500 to the project budget, which must be covered by the Stefanos.
- The extended timeline may cause scheduling conflicts with subsequent tasks such as final testing and customer training.

Project Health Check

Scope	Status	Tasks: Completed/Pending
Time	Over	• Completed: Storefront setup started. • Pending: Recommendation engine development.
Cost	At Risk	• The additional $3,500 required for the AI service upgrade increases the project budget.
Quality	At Risk	• Adjustments will ensure quality is maintained despite extended timelines.

Risk Scenario 2 Response

How might this risk affect the project?	
This risk will extend the project timeline by four weeks, potentially leading to scheduling conflicts with subsequent tasks such as final testing and customer training. The additional $3,500 needed for the recommendation engine also increases the project cost, which must be covered by the Stefanos. These factors may impact the overall project quality and client satisfaction.	
Selected risk response strategy:	**Accept**
Explain below how you would apply the strategy.	
The project team will document and communicate the risk and its impacts to all stakeholders to set clear expectations regarding the extended timeline and increased budget. A contingency plan will be created to address any further delays or cost overruns. Additionally, the team will focus on optimizing other processes to mitigate the impact on project quality and client satisfaction. The extra $3,500 will be allocated as part of the project's revised budget, ensuring transparency and proper financial management. Regular updates will be provided to the stakeholders to maintain trust and alignment throughout the extended timeline.	

Step Five: Knowledge Documentation

Knowledge Documentation

Throughout the project and before its closure, you asked the team to create documentation for the company Yosemite and the customer. The documentation list is partially filled out; **your task is to fill in the missing information.** You can also add more documentation tasks to the list, as there are many more things that can be written down. To have a complete project plan, consider adding these tasks to your Gantt chart/Trello board.

Knowledge Documentation

Task	Assignee	Place in Timeline	Reason for Documenting This Task
Storefront Technical Documentation	Aliyah	After finishing Build Storefront task	To provide detailed technical guidelines for maintenance and future updates.
Platform user's manual	Moe	Before the training the Stefanos	A documentation that can be given to Stefanos as a manual
Recommendation Engine Documentation	Aliyah	After completing the Recommendation Engine task	A comprehensive guide for the end-users and maintenance teams
Lesson Learned Document	Project Manager	After the project is finished	To summarize the successes, challenges, and improvements for future projects.