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 business objectives of the project are to digitize the operations and sales of The Stefano Shop, integrate it into the Yosemite platform, and provide the necessary training for the owners to operate their digital store. The project should be completed within a maximum of 12 weeks with the support of an engineering manager, vendor manager, and marketing manager.
List at least 3 project milestones
Milestone 1: Development of the storefront on the Yosemite platform. Milestone 2: Integration of social media features into the digital store. Milestone 3: Implementation of a recommendation engine for personalized product recommendations. Additionally, providing training and knowledge to Papa Stefano, Mama Stefano, and Junior Stefano for operating their digital store can be considered as a separate milestone.
List the resources you have access to as the project manager, including the budget
There is a budget of $15,000, and a team made up of an engineering manager, a vendor manager, and a marketing engineer.

Cost-Benefit Analysis

Write out the formula for the cost-benefit analysis
Step 1: Get the present value of the expected or future benefit. The formula is Future Benefit / (1 + discount rate)^n Step 2: Get the present value of the project cost. The formula is Future Cost / (1 + discount rate)^n Step 3: Get the cost-benefit ratio. The formula is Present value of expected benefit / Present value of project cost
Show the steps to get the cost-benefit ratio
Step 1: Present Value of the expected or future benefit= 36000/ (1 + 20)^1 = 30,000 Step 2: Present value of the project cost = 15,000 Step 3: Cost-benefit ratio = 30,000/ 15,000 = 2.00
State whether the investment is positive or negative
The investment is >1. Hence, the investment is positive.

Timing and Methodology

What are the **minimum and the maximum** number of weeks required to complete the project?
The engineering manager takes 2 weeks to complete each task and she has 3 tasks. Hence, it will take Aliyah 6 weeks to complete the tasks. The marketing manager and vendor manager can execute some of their task simultaneously with the engineering manager. We would need to train the Stefano's once we are about to go live which requires 1 week. The project requires a minimum of 7 weeks and a maximum of 12 weeks to complete the project.
What methodology do you propose to use for organizing the project: **Waterfall or Agile**? Explain your answer in 2-3 sentences.
From the data provided in the cast of characters, we know that Mama Stefano is accustommed to working on spreadsheets, Aliyah, the engineering manager prefers working in Agile sprints and, Moe and Taylor might cause a delay in the project if we opt for the Waterfall methodology. The project focuses on 3 major tasks which can take place in a 2 -4 weeks sprint. Hence, I will move forward with the Agile sprints.
Based on your chosen methodology, list the meetings you need to schedule.
Following meetings need to be scheduled: • A kickoff meeting and daily stand-ups; • Sprint retrospective meeting; • Knowledge transfer & training meeting with the Stefano family

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	High	• 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)	Low	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)	Low	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	I	A/R	C
Build social media integration	I	I	C	I	A/R
Train Stefano's on platform	C	I	I	A/R	C
Create social media channels	I	I	A/R	I	C
Build recommendation engine	I	I	C	C	A/R
Create Custom Sales Report	I	I	I	A/R	C
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:**

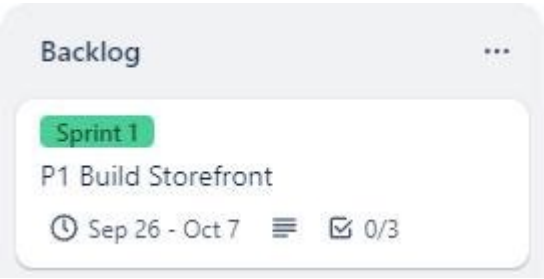
- Sprint planning task for each sprint
- Sprint review task for each sprint

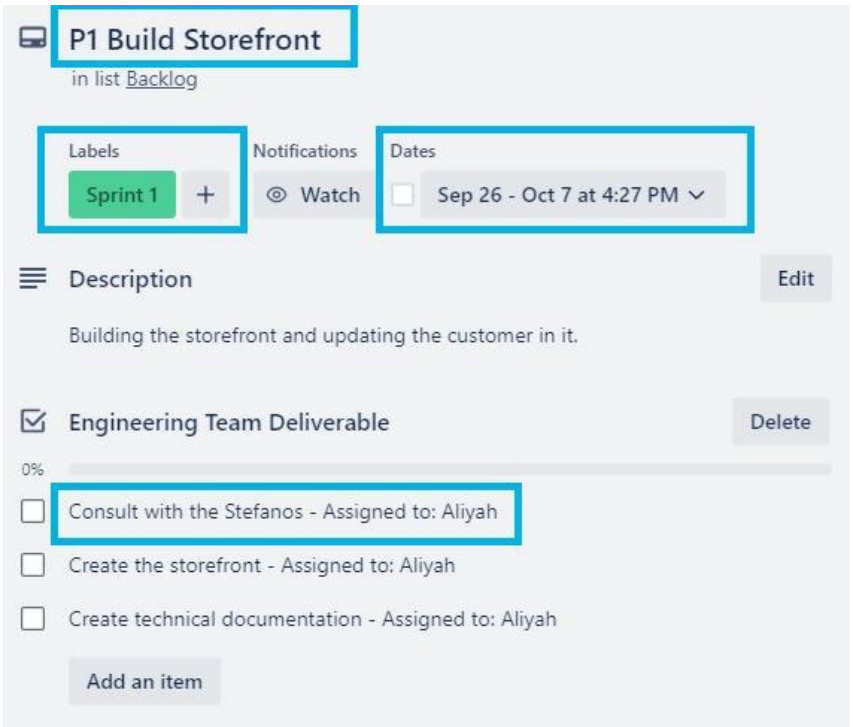
Additional Instructions for the Agile Project Plan - Trello

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





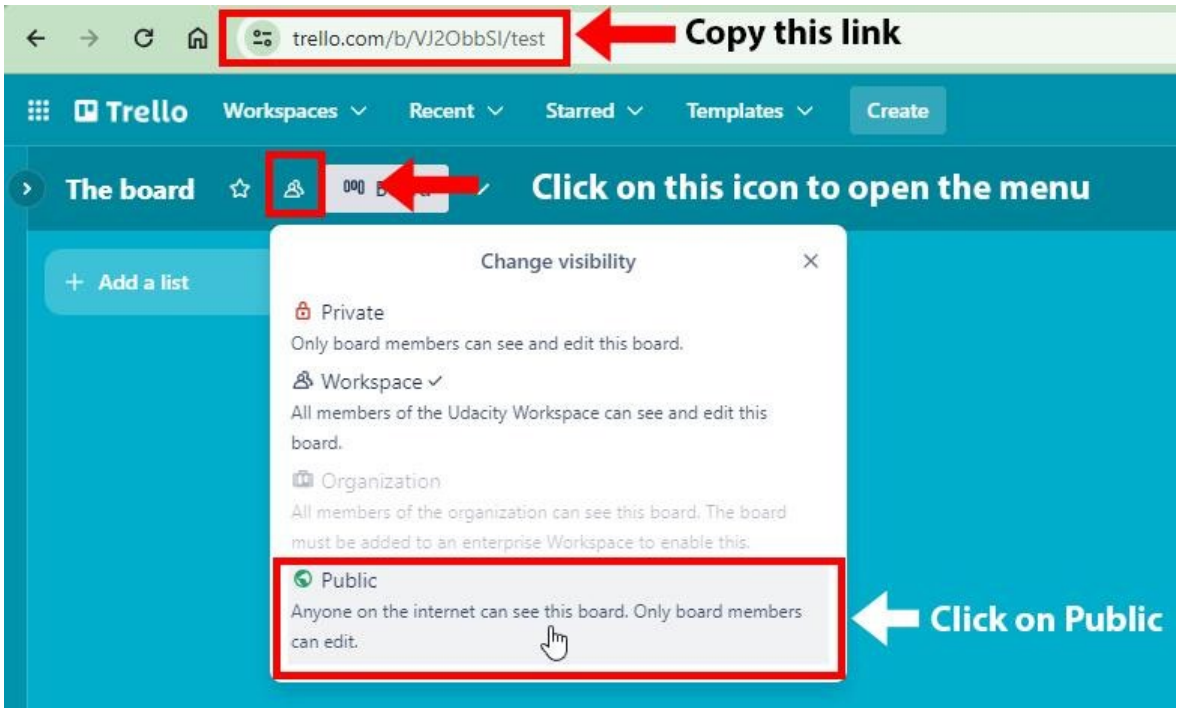
Additional Instructions for the Agile Project Plan

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

Yosemite-Stefano Shop Project | Trello

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?	
Inventory data from the Stefano's is a critical input for the project. Integration of social media and generating a recommendation engine, both rely on that data. The vendor manager cannot proceed with his task until he gets the information, not to forget, this project is one of many projects he is woking on. This definitely affects the stakeholder relationship and might cause a scheduling issue if not addressed in time.	
Selected risk response strategy:	Accept
Explain below how you would apply the strategy.	
Updating inventory data is a part of Sprint 2 and requires a week to complete the task whereas the time allotted to Sprint 2 is 2 weeks. We will only run into a scheduling issue if the Stefano's don't provide the list within a week. If the Stefano's fail to provide the inventory data even after the end of 1st week, Sprint 2 timeline will have to be extended. The vendor manager can move on to a different project extending the 12 week timeline putting the customer in a fix.	

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

Stefano Shop	Yosemite
Rathod, Monica	7th October 2024

Project Summary

Sprint 2 of digitalization of te Stefano shop is underway. We have succesfully completed building a storefront on the platform and transferring the new social media channels to the customer.The next steps in the project depend on the inventory list. The customer needs a few more days to provide the information which once received will enable the vendor manager to upload the data into the system.

Project Highlights/Blockers

Highlights:

- Storefront design has been created.
- Social media channels have been created and transferred over to the customer.

Blockers:

- Inventory list from the customer is delayed.
- Inventory data can't be entered into the system affecting the completion of social media integration.

Project Health Check		
Scope	**Status**	**Tasks: Completed/Pending**
Time	At Risk	**Completed:** • Building a storefront on the platform. **Pending:** • Social media integration. • Building a recommendation engine.
Cost	On Track	
Quality	On Track	

Risk Scenario 2

When the Engineering team began designing the recommendation engine, they informed you that the task was more complicated than anticipated. The Engineering Manager said it would take four weeks and cost an additional $3,500 to upgrade the AI service that powers the recommendation engine. That fee would have to be covered by the customer.

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.

Risk Scenario 2 Response

How might this risk affect the project?	
The project risks scope creep with an additional cost. If we avoid this step, the quality of the project will be degraded. The project would still get completed in less than 12 weeks even with an addition of 2 weeks in the scope.	
Selected risk response strategy:	Mitigate
Explain below how you would apply the strategy.	
Papa Stefano was wary of going over budget and now they need to encounter an additonal cost to power the recommendation engine. The AI engine needs to be upgraded to get benefits of the digitalization. At this stage in the project it would be beneficial to invest 2 more weeks and $3500 to gain the increase in revenue.	

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	A documentation containing code or detailed information on the technical resources that went into deploying a release.
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 finishing Build Recommendation Engine task	A comprehensive guide for the end-users and maintenance teams
Lesson Learned Document	Project Manager	After the project is finished	A document to improve performance in the next Sprint.