Final Project: From Methodology to Execution

Digital Project Management

Step 1) Study the Scenario

Overview

You are a project manager for Yosemite, an eCommerce company that integrates brick-and-mortar stores onto its platform for a fee. It's the third Tuesday in September; 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 a week before Christmas in the U.S.

Integrating The Stefano Shop onto 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.

At Yosemite, you have access to the Engineering, Vendor Management, and Marketing teams. The Engineering team will need up-to-date information on the store's inventory from the customer. The Vendor Managers can onboard and train whoever will manage the storefront on Yosemite's platform. The Marketing team can set up the social media channels but will have to hand off the account's ongoing management to someone at the Stefano's.

Project Budget

The Yosemite storefront, training, and documentation can be delivered for $15,000 - a tight budget for the Stefano's. 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 Stefano Shop's current annual revenue is $120,000
- The eCommerce industry discount rate is 7%
- Yosemite promises a 30% increase in revenue ($36,000)
- And the cost of this project will be $15,000

Getting the Job Done

The Engineering team has to deliver three main features: the storefront, social media integration, and a recommendation engine. Each of those features can be completed in a two-week sprint. The tasks involved in each sprint are design, build, test, release. You, as the project manager, can recommend building out all

features before the store goes live on Yosemite. Or you can recommend releasing a minimum viable product—a live storefront—then later adding the other features: the social media integration and a recommendation engine.

The Vendor Managers, as part of the storefront deliverable, have the task of inputting all inventory data. That task would take a week and is dependent on the Engineering team completing the first deliverable. Then the Vendor Managers will spend a week onboarding and training the Stefano's on how to use the Yosemite platform. This task should occur before the store goes live. During or after the recommendation engine deliverable is released, the Vendor Managers will have to create a custom sales report that is automatically sent to the Stefano's with results on how the recommendation engine impacts sales. It takes a week to set up the automated report.

The Marketing team is tasked with creating the social media channels and handing off its ownership to Stefano's, which takes a week. But this task must occur before Engineering's second feature: social media integration.

The Cast of Characters

- Papa Stefano - store co-founder; he manages the floor and is averse to new technology. While he understands it's time to modernize the shopping experience and would like to gain new customers, he's wary of going over budget.
- Mama Stefano - store co-founder and certified accountant; she keeps spreadsheets to track inventory and has convinced Papa to work with Yosemite. Mama is more concerned about getting the store ready in time for Christmas shoppers.
- Junior Stefano - the Stefano daughter hopes to take over the family business one day; Junior creates social media posts on her own accounts for the store. She sees value in taking full advantage of Yosemite's services.
- Moe - the Yosemite Vendor Manager tends to be enthusiastic about upselling customers with additional services; not mindful of budget.
- Aliyah - the Yosemite Engineering Lead prefers to work in Agile sprints but understands that not all customers can keep up with that pace.
- Taylor - the Yosemite Marketing Manager tends to take on too many assignments and can delay getting tasks completed. Taylor often needs to be informed of their assignments ahead of time.
- Lou - the Yosemite Small Business Program Manager oversees all accounts that fall under the Small Business category. You report directly to Lou. Lou wants to showcase your project to the entire company if all goes well and expect regular communication, especially when things go wrong.

Step 2) Write a Project Scope

The project scope consists of the following sections: business objectives and project value, deliverables and milestones, a timeline, resources, costs, and a proposed methodology. Use the above scenario to identify the information relevant to the project scope.

In three to four sentences, describe the business objectives for Yosemite and for the customer, The Stefano Shop.	The primary business goal for Yosemite is to digitize the store's operations and sales, and complete the integration of The Stefano Shop on our platform. For the Stefano shop we need to implement a storefront on the platform, a social media integration, and a recommendation engine using the Engineering, Vendor Management, and Marketing teams at Yosemite.
List project milestones and deliverables.	- Implement a storefront on the platform - Social media integration - Recommendation engine - Training and KT(knowledge Transfer) to operate the digital store once it has been developed.
What resources as the project manager do you have to complete the project?	At Yosemite, We have access to the Engineering, Vendor Management, and Marketing teams to complete the Project
Do the Cost-Benefit Analysis. Write out the formula, show the steps to get the cost-benefit ratio, and state whether the investment is positive or negative.	Benefit-Cost Ratio = ∑PV of all the Expected Benefits / ∑PV of all the Associated Costs Net Present Value = ∑PV of all the Expected Benefits – ∑PV of all the Associated Costs PV of Benefit= $36,000 / (1 + 7%)=$33644.8 PV of Cost = $15,000 / (1 + 7%)=$14018.6 Benefit-Cost Ratio =2.4x Net Present Value = $33644.8 – $14018.6 Net Present Value = $19626.2 Therefore, both the method of cost-benefit analysis suggests that the investment is positive.
What are the minimum and the maximum number of weeks required to complete the project?	*The project can be completed in minimum 7 weeks and maximum 12 Weeks*

What methodology do you propose to use for organizing the project: Waterfall or Agile? Explain your answer.	I would propose the Agile methodology for organizing the project as Agile encourages the team to work simultaneously on different phases of the project therefore completing the project faster. As we have milestones which take 2 weeks each to complete, agile will be perfect to deliver the MVP(minimum viable product) from the first sprint itself. As It will be client Facing, the team will share progress and incorporate feedback at the end of each sprint.
What kind of meetings will you have with stakeholders and how often? Explain your answer based on the project methodology you have chosen.	We will need to have sprint planning, daily scrum, sprint review, and sprint retrospective meetings with stakeholders. The meeting occurrence will depend upon the type of meeting, so the meeting can happen once per day to once per sprint.

Step 3) Identify Your Stakeholders and Team

Classify the influence level and amount of authoritative power of each stakeholder as either high or low. Then accordingly, explain how you plan to engage this stakeholder and how they might affect the project in a negative or positive way. Your assumptions should, at a minimum, reference the profiles in *The Cast of Characters* section in Step 1.

Power-Influence Classification Grid

Stakeholder	Estimated Project Influence	Estimated Project Importance	Assumptions and Risks
Aliyah, Engineering Manager	Low	High	*As Aliyah prefers agile sprints, she will not be a risk to the project. She will be quite supportive even if any sprint or project deadline overflows as clients can't keep up the pace with agile sometimes.*
Papa Stefano	High	High	*As he is the client and struggles with technology, he might not understand all the bits and pieces of the platform. So, we might have to sit with him at some steps to make him understand the platform so he understands it and might not hinder the project at later steps.*
Mama Stefano	High	High	*She gave the idea to her husband about working with us so he understands the importance of the project. She wants the project to be done before christmas but as we are following agile it won't be a problem to meet the deadline.*
Junior Stefano	*Low*	*Low*	*She is good with technology, and would be good in taking full use of the platform.*
Moe, Vendor Manager	*Low*	*Low*	*As he upsells the services sometimes, have to make him understand not to commit some service that might take the project over-budget*

Taylor, the Marketing Manager	*Low*	*Low*	*As he has less bandwidth, he needs to be informed of the task beforehand so that the project deadlines may not suffer.*
Lou, the Program Manager	*Low*	High	*He is the program manager, and needs to be informed of the shortcomings beforehand as this project will be a showcase on completion.*
Me, the Project Manager	*Low*	High	*I need to have regular communications with the owners before and after each sprint so as to take feedback and cover up the shortcoming in the next sprint, so the project does not suffer at the end.*

Create a RACI chart for the project. It will break down the deliverables from the project scope into tasks, but you will have to show who should be responsible, accountable, consulted, and informed for each row. Add as many columns as necessary to represent who belongs in the RACI chart.

RACI Chart

Tasks	Stakeholders				
	Papa Stefano	**Moe**	**Aliyah**	**Taylor**	**Lou**
Build storefront	I	CI	RA	I	I
Input Inventory Data	I	RA	I	I	I
Build social media integration	I	CI	RA	I	I
Train Stefano's on platform	I	RA	CI	I	I
Create social media channels	I	I	CI	RA	I
Train Stefano's on social media use	I	I	CI	RA	I
Build recommendation engine	I	CI	RA	I	I
Create Automated Sales Report	I	RA	CI	I	I
Engage stakeholders	I	I	I	I	CI

Step 4) 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 in 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, a Gantt Chart for Waterfall or 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:

- Deliverables
- Tasks
- Assignments
- Schedule and order of tasks

Additional Instructions for a Waterfall Project Plan

If you choose a Waterfall project plan in Step 2, you should include tasks related to stakeholder engagement, team management, and closure activities. Assume that each additional task can take 1-3 days to complete, so it will affect your schedule. The additional tasks are

- A kickoff meeting,
- Scheduled status reports, and
- Documenting knowledge.

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 an 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. Those tasks include:

- Creating a Lessons Learned document
- Adding features to a backlog
- Presenting demos
- Adding tasks to a sprint
- Emailing status reports
- Reviewing Lessons Learned
- Creating documentation for a demo
- Hosting a Retrospective meeting

Create a new **Scrum Board** on Trello and make it public.

- To make your board public, click on Private > Change Visibility: Public > "Yes, make board go public".
- To grab the public URL, go to Show Menu > …More > Link to This Board.

Paste the URL here:

https://trello.com/b/EqjyykaS/udacity

Step 5) Analyze Risk and Select Response Strategy

Risk Scenario 1

The Stefano Shop project relies on the customer providing Yosemite with information on all products in its inventory. The Vendor Manager has reported that the Stefano's have not delivered that information when requested due to their analog way of handling inventory. They promised to deliver the inventory information in a few more days.

How might this risk affect the project?	*The vendor managers are blocked for those few days. Therefore, the task of training the stefano's and generating custom sales reports might get delayed and the bandwidth of vendor managers on other projects might suffer as well.*
Which of these Risk Response Strategies would you have chosen if you had anticipated the risk prior to initiating the project: Avoid, Mitigate, Transfer, Actively Accept, Passively Accept, Escalate. Explain how you would apply the strategy.	*To mitigate the risk for this scenario I should have gone with the avoid Risk response strategy. Had we planned for this risk, we would have moved the inventory data collection task to some other sprint as this task depends just on the storefront deliverable. And so the vendor managers will not be blocked as well.*

Risk Scenario 2

When the Engineering team began designing the recommendation engine—a feature that takes up 20% of the current budget—they informed you that the task was more complicated than anticipated. The Engineering Manager said it would take a total of 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. Or the recommendation engine feature could be dropped from the project.

How might this risk affect the project?	As this is the last step of the project this will surely push the deadline of the project .

Which of these Risk Response Strategies would you apply to the above risk: Avoid, Mitigate, Transfer, Actively Accept, Passively Accept, Escalate. Explain how you would apply the strategy.	To mitigate the risk for this scenario I should have gone with the Actively Accept Risk response strategy. Here when we know the task is complex and there is ambiguity in requirements, there should be active communication about this with the client for a workaround, if a rish happens. Using this approach, we actively accept such a risk and reserve an additional budget for overtime for the team to make the required changes on time.

Step 6) Plan Knowledge Share and Report Project Status

Knowledge Documentation

Throughout the project and before its closure, you asked the team to create documentation for the company Yosemite and the customers, the Stefano's. In your project plan, what documentation tasks did you include? List below what documentation tasks you came up with, who you assigned them to, how you scheduled them, and why it is important to document this task. Add more rows to the table if you see fit. Add these tasks to your project plan if you haven't already done so.

Task	Assignee	Deadline/Place in Timeline	Reason for Documenting This Task
Project Process	*Me*	Start of the Project	*To understand the Lessons learned, RACI Chart, Stakeholder analysis, risk response instructions and project plan instructions.*
Product Development	Lou	End of Project	User research, information architecture, style guide, pricing models,
User(internal)	Taylor	End of Project	Written instruction, user manual, how to videos and FAQs
User(external)	Taylor	End of Project	user manual, how to videos, FAQ's, step by step tutorials and digital course

Technical	Aliyah	End of first and third sprint	Source code of product, software architecture, network architecture, bug tracking reports.
System/infrastructure	Aliyah	End of Project	Source code showing interaction with system, software/networking architecture, Troubleshooting help guides and organizational chart.

Status Report

In the Monitor and Control phase of project management, it is your responsibility to track how well the project is going and report to stakeholders the project status.

Where in your project timeline did you schedule or add the task for creating and sending a status report?	*At the end of the project and at the end of each sprint*
How do you plan to communicate the report to stakeholders, and how often?	*I plan to communicate with stakeholders at the sprint retrospective meetings and plan to send the status report to stakeholders by Email at the end of each sprint.*

Create two **status reports** using the *Status Report Template* provided in the classroom based on the risks described in Step 5.

1. The first status report should be created on the day you discovered the Stefano's did not deliver the inventory information to the Vendor Manager on time.
2. The second status report should be created in the middle of the Engineering team building the recommendation engine. That is when you were informed by the Engineering Manager that the project would be more time-consuming and costly.