Project Manager Test Task

Task & Goal

Client A

• add an important payment feature and introduce Apple Pay as a way of completing payments

Client B

- wants more filters in the database
- and a new page on the platform
- with a chatbot to inform his customers about the status of their order

Goal

Deliver all the features in 1 month

Team Member

Role	Team Member			
Front End Developer	FE Developer 1			
Back End Developer	BE Developer 1			
	BE Developer 2			
UX/UI Designer	Designer 1			
Quality Assurance	Tester 1			

1. Design and present briefly the flow of meetings and day-to-day in order to hit the goal of delivery in 1 month.

Answer: From Monday to Friday for the whole month, the team will work on the client's project.

2. How would you set SCRUM methodology in this case, what else would you propose?

Answer:

SPRINT

- It will be a one-time Sprint for the whole project in one month.
- The sprint will start with the sprint planning on the first day of the project.
- The scrum team will conduct daily scrum during the working days for 15 minutes.
- In the 4th week, as per the project schedule, the sprint review will be conducted where the team and the stakeholders gather to review completed work and determine whether additional changes are needed.
- On the last day of the project, the whole team attends a sprint retrospective to discuss what went well during the previous sprint cycle.

ROLES

- All the team members will be on the scrum team.
- The project manager has to be the Product Owner and the Scrum Master.

Project Schedule

			Overview Sch	edule	
	Mon	Tue	Wed	Thurs	Fri
	03 Jan 2022	04 Jan 2022	04 Jan 2022	06 Jan 2022	07 Jan 2022
Week	Sprint Planning	Daily Scrum	Daily Scrum	Daily Scrum	Daily Scrum Day 5
1	Day 1	Day 2	Day 3	Day 4	
	Mon	Tue	Wed	Thurs	Fri
	10 Jan 2022	11 Jan 2022	12 Jan 2022	13 Jan 2022	14 Jan 2022
Week	Daily Scrum	Daily Scrum	Daily Scrum	Daily Scrum	Daily Scrum
2	Day 6	Day 7	Day 8	Day 9	Day 10
	Mon	Tue	Wed	Thurs	Fri
	17 Jan 2022	18 Jan 2022	19 Jan 2022	20 Jan 2022	21 Jan 2022
Week	Daily Scrum	Daily Scrum	Daily Scrum	Daily Scrum	Daily Scrum
3	Day 11	Day 12	Day 13	Day 14	Day 15
	Mon	Tue	Wed	Thurs	Fri
	24 Jan 2022	25 Jan 2022	26 Jan 2022	27 Jan 2022	28 Jan 2022
Week	Daily Scrum	Daily Scrum	Daily Scrum	Daily Scrum	Daily Scrum Day 20 Sprint Review
4	Day 16	Day 17	Day 18	Day 19	
Week	Mon 31 Jan 2022				
5	Sprint Retrospective				

3. How would you calculate the team's capacity?

Answer: If all the team member's allocation is one hundred percent, then 8 hours are inducted per working day and next, times the days of working throughout the whole month, the outcome will be the total hours of one sprint. The total amounts of the sprint's hour for the entire month need to be subtracted from the hours of the Scrum Ceremonies such as Sprint Planning, Review, Retrospective, and Daily Scrum. The result will be the hours of the team capacity.

1 Sprint = 21 Days

1 Day = 8 Hrs

Total Hours of working day = 8 x 21 = 168 Hrs

Total Hours of the Ceremonies Event: 9.25 Hrs

- Daily Scrum → 15 mins x 1 sprint (21 days) = 300 mins. (5 Hrs)
- Sprint Planning, Review, and Retrospective = 255 mins. (4.25 Hrs)

Total hours of the working day - Total Hours of the ceremonies event = Team Capacity

168 - 9.25 = 158.75 (Team capacity per person)

Team Capacity

Team member allocation

Role	Team Member	% Allocation	Hours/day	Hours/Sprint
Pook End Dovolonor	BE Developer 1	100%	8	168
Back End Developer	BE Developer 2	100%	8	168
Front End Developer	FE Developer 1	100%	8	168
UX/UI Designer	Designer 1	100%	8	168
QA	Tester 1	100%	8	168
Sci		40 Hrs	840 Hrs	

Ceremonies Event

Ceremonies	Week 1	Week 2	Week 3	Week 4	Week 5	Total Mins	Total Hrs			
Daily Scrum	3-7/1 = 75	10-14/1 = 75	17-21/1 = 75	24-28/1 = 75		300	5			
Sprint Planning	3/1 = 90					90	1.5			
Sprint Review				28/1 = 90		90	1.5			
Sprint Retrospective	Sprint Retrospective 31/1 = 75									
	Total →									

Available team capacity

	Hours / Day / Resource												
Team Member	Hrs/Day	Allocat	Week 1	Week 2	Week 3	Week 4	Week 5	Spri nt	Cere mony Time	Available Capacity			
BE Developer 1	8	100%	3-7/1 = 40 Hrs	10-14/1 = 40 Hrs	17-21/1 = 40 Hrs	24-28/1 = 40 Hrs	31/1 = 8 Hrs	168	9.25	158.75			
BE Developer 2	8	100%	3-7/1 = 40 Hrs	10-14/1 = 40 Hrs	17-21/1 = 40 Hrs	24-28/1 = 40 Hrs	31/1 = 8 Hrs	168	9.25	158.75			
FE Developer 1	8	100%	3-7/1 = 40 Hrs	10-14/1 = 40 Hrs	17-21/1 = 40 Hrs	24-28/1 = 40 Hrs	31/1 = 8 Hrs	168	9.25	158.75			
Designer 1	8	100%	3-7/1 = 40 Hrs	10-14/1 = 40 Hrs	17-21/1 = 40 Hrs	24-28/1 = 40 Hrs	31/1 = 8 Hrs	168	9.25	158.75			
Tester 1	8	100%	3-7/1 = 40 Hrs	10-14/1 = 40 Hrs	17-21/1 = 40 Hrs	24-28/1 = 40 Hrs	31/1 = 8 Hrs	168	9.25	158.75			
	Total →												

4. What are the necessary documents and information you will need before you start?

Answer: Product backlog, estimation number of user stories, and project charter.

5. Define 3 tasks (user stories)

Answer:

1. Apple Pay → **As** an active user **I want** to be able to click the Apple pay button **so that** I don't have to key in my bank's card info.

Scenario: Active user on the shopping basket page

Given I'm on my shopping basket page **When** I click the Apple Pay button

Then the system proceeds to check out and show me the amount that I need to pay and the shipping address.

2. Filter for the database → As an active user or visitor I want to search the products that I like so that I can find them quickly.

Scenario: Active user/visitor using the search function on the website

Given I'm using a search function **When** I type in a product name **Then** the system will show me the correct products immediately

3. Chatbot \rightarrow **As** an active user or visitor **I want** to be able to ask questions on the website **so that** I can get a quick response.

Scenario: Active user/visitors on the main website page

Given I'm on the website main page **When** I click the Chatbot **Then** the chat will open

User Stories

Client	Task	User Stories	Acceptance Criteria
А	Apple pay	As an active user I want to be able to click the Apple pay button So that I don't have to key in my bank's card info	Scenario: Active user on the shopping basket page Given I'm on my shopping basket page When I click the Apple Pay button Then the system proceeds to check out and show me the amount that I need to pay and the shipping address.
	Website redesigned	As an active user or visitor I want to see a modern and up to date webpage So that I can stay interested	Scenario: Active user/visitor on the newly designed homepage Given I'm on a newly designed homepage When I see the new features Then it makes me curious to know more about the website
В	Filters for database	As an active user or visitor I want to search the products that I like So that I can find them quickly	Scenario: Active user/visitor using the search function on the website Given I'm using a search function When I type in a product name Then the system will show me the correct products immediately
	Chatbot	As an active user or visitor I want to be able to ask questions on the website So that I can get a quick respond	Scenario: Active user/visitors on the main website page Given I'm on the website main page When I click the Chatbot Then the chat will open

6. How would you define task dependencies?

Answer: The task dependencies will be defined according to the epic of the task. For example, the epic will be apple pay, filter for the database, and chatbot. All user stories will be arranged according to their epic.

Task Dependencies

Apple Pay	Website Redesign	Filters for Database	ChatBot
Allow apple pay IP addresses - BE Dev 1	Create design pattern - UX/UI Designer 1	Write the query - BE Dev 2	Customized your bot profile - BE Dev 2
Configure merchant ID certificate - BE Dev 1	Design the Chatbot - UX/UI Designer 1	Write the API endpoint to connect to the frontend - BE Dev 2	Build your bot flow - BE Dev 2
Domain registration and verification - <i>BE Dev 1</i>	Build the navigation - FE Dev 1	Build the search input - FE Dev 1	Develop the bot's sentiment analysis feature - <i>BE Dev 2</i>
Creating API endpoints - FE Dev 1	Build the footer - FE Dev 1	Write the API endpoint to connect to the backend - FE Dev 1	Write the logic - FE Dev 1
Build interface - FE Dev 1			Style the bot - FE Dev 1

7. After the grooming meeting you get the dev team estimations.

- a. Task 1 apple pay > 1 month of work, 50% backend work 50% front end
- b. Task 2 website redesign > 2 weeks front end work
- c. Task 3 new filters > 2 weeks back end work, 3 days front end
- d. Task 4 chatbot > 2 weeks back end work, 1-week front end
- How do you allocate resources to ensure the delivery of full tasks?

Answer: Assign each team member to the task that fits their skills. Arranged them to work according to their capacity and estimation.

• Define dependencies and create a gantt chart

Answer:

Project 1 Client A&B
Read-only view, generated on 10 Dec 2021

	ACTIVITIES	ASSIGNEE	START	WD	DUE	%	W1 Jan 22 W4 W5 Feb 22 W8 Jan 03 Jan 10 Jan 17 Jan 24 Jan 31 Feb 07 Feb 14 Feb 21 F
	Sprint		03/Jan	21d	31/Jan	0%	Sprint
1	Sprint Planning	VU: Team A	03/Jan	1d	03/Jan	096	Sprint Planning
2	Sprint Review	VU: Team A	28/Jan	1d	28/Jan	096	Sprint Review
3	Sprint Retrospective	VU: Team A	31/Jan	1d	31/Jan	096	Sprint Retrospective
	Apple pay - Client A		03/Jan	16d	24/Jan	49%	Apple pay - Client A
5		VU: FE Developer 1	03/Jan	5d	07/Jan	80%	Creating API endpoints
6	Allow apple pay IP addresses	VU: BE Developer 1	03/Jan	7d	11/Jan	90%	Allow apple pay IP addresses
7	Ocnfigure merchant ID certificate	VU: BE Developer 1	12/Jan	5d	18/Jan	096	Configure merchant ID certificate
8	Building interface	VU: FE Developer 1	17/Jan	5d	21/Jan	50%	Building interface
9	 Domain registration and verification 	VU: BE Developer 1	19/Jan	4d	24/Jan	096	Domain registration and verificatio
	Website redesign - Client B		03/Jan	15d	21/Jan	0%	Website redesign - Client B
11		VU: UX/UI Designer 1	03/Jan	5d	07/Jan	096	Create design pattern
12	Build the navigation	VU: FE Developer 1	10/Jan	5d	14/Jan	096	Build the navigation
13	O Design the chatbot	VU: UX/UI Designer 1	10/Jan	5d	14/Jan	096	Design the chatbot
14	Build the footer	VU: FE Developer 1	17/Jan	5d	21/Jan	096	Build the footer
	Filters for database - Client B		03/Jan	9d	13/Jan	8%	Filters for database - Client B
16	Write the API endpoint to connect to the frontence	VU: BE Developer 2	03/Jan	7d	11/Jan	096	Write the API endpoint to connect to the fronter
17	Write the API endpoint to connect to the backend	VU: FE Developer 1	10/Jan	2d	11/Jan	096	Write the API endpoint to connect to the backer
18	Build search input	VU: FE Developer 1	12/Jan	1d	12/Jan	15%	Build search input
19		VU: BE Developer 2	12/Jan	2d	13/Jan	40%	Write the query
	Chatbot - Client B		12/Jan	11d	26/Jan	0%	Chatbot - Client B
21	O Develop the Bots sentiment analysis feature	VU: BE Developer 2	12/Jan	6d	19/Jan	096	Develop the Bots sentiment analysis fea
22	Style the bot	VU: FE Developer 1	20/Jan	3d	24/Jan	096	Style the bot
23	Customize your bot profile	VU: BE Developer 2	20/Jan	3d	24/Jan	096	Customize your bot profile
24	Write the logic ■ Output Description ■ Output Description ■ Output Description ■ Output Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Description Desc	VU: FE Developer 1	25/Jan	2d	26/Jan	096	Write the logic
25	Build bot flow	VU: BE Developer 2	25/Jan	2d	26/Jan	096	Build bot flow
	Quality Assurance		17/Jan	9d	27/Jan	0%	Quality Assurance
27	Filter for database test	VU: Tester 1	17/Jan	2d	18/Jan	096	Filter for database test
28	Website redesigned test	VU: Tester 1	24/Jan	1d	24/Jan	0%	Website redesigned test
29	Apple Pay test	VU: Tester 1	25/Jan	1d	25/Jan	0%	Apple Pay test
30	Chatbot test	VU: Tester 1	27/Jan	1d	27/Jan	096	Chatbot test

Any red flags to the CEO?

Answer:

Apple Pay → **Configure Merchant ID Certificate**

• The process can take up to more than five days which can cause the project not to be delivered on time.

The Overall Project for Client A&B

• There is a possibility the clients might not be satisfied with our outcome task due to lack of workforce and time given. When that happens, we might lose our active clients.

8. You are 2 weeks into the sprint when the front-end developers start implementation of Apple Pay, you realize you don't have an apple phone.

- 1. What do you do? **Answer:** Request the company to provide a new or used iPhone.
- 2. After solving a. You realise that you don't have access to Apple Pay in Serbia as

you are not a verified country. How do you solve this problem? **Answer:** Use third-party software to get around the restriction.

3. 2 days in you realise that all the technical blockings will delay your task for 1

week, how do you reallocate resources? **Answer:** Reallocate the resources to start the task a week later.

Issues Report

No.	Problem	Solution
1	FE Developer 1 implemented Apple Pay. iPhone was not available, and ultimately, we could not test it.	Request company to provide a new or used iPhone for testing.
2	There is no access to Apple Pay in Serbia because it's listed as a not verified country.	Bypass the Apple Pay restriction with Monese.
3	2nd day of the sprint, the task was delayed for a week due to technical blockings.	Reallocate resources to begin the project a week later.

9. You employed an intern for front-end development. Intern is half-time employed and his productivity is 50% as he is just learning, however, he is decreasing the productivity of your main front-end dev to 80%, do capacity planning again and make another delivery roadmap with the new updated resources.

<u>Updated capacity planning</u> (Purple color words stands for updated)

	Hours / Day / Resource											
Team Member	Hrs/Day	Allocation	Week 1	Week 2	Week 3	Week 4	Week 5	Sprint	Ceremony Time	Available Capacity		
BE Developer 1	8	100%	3-7/1 = 40 Hrs	10-14/1 = 40 Hrs	17-21/1 = 40 Hrs	24-28/1 = 40 Hrs	31/1 = 8 Hrs	168	9.25	158.75		
BE Developer 2	8	100%	3-7/1 = 40 Hrs	10-14/1 = 40 Hrs	17-21/1 = 40 Hrs	24-28/1 = 40 Hrs	31/1 = 8 Hrs	168	9.25	158.75		
FE Developer 1	6.4	80%	3-7/1 = 32 Hrs	10-14/1 = 32 Hrs	17-21/1 = 32 Hrs	24-28/1 = 32 Hrs	31/1 = 6.4 Hrs	134.4	9.25	125.15		
Intern FE Developer 2	4	50%	3-7/1 = 20 Hrs	10-14/1 = 20 Hrs	17-21/1 = 20 Hrs	24-28/1 = 20 Hrs	31/1 = 4 Hrs	84	9.25	74.75		
Designer 1	8	100%	3-7/1 = 40 Hrs	10-14/1 = 40 Hrs	17-21/1 = 40 Hrs	24-28/1 = 40 Hrs	31/1 = 8 Hrs	168	9.25	158.75		
Tester 1	8	100%	3-7/1 = 40 Hrs	10-14/1 = 40 Hrs	17-21/1 = 40 Hrs	24-28/1 = 40 Hrs	31/1 = 8 Hrs	168	9.25	158.75		
				898.4 Hrs	46.25 Hrs	834.9 Hrs						

Updated Gannt Chart

Project 1 Client A&B
Read-only view, generated on 10 Dec 2021

	ACT	IVITIES	ASSIGNEE	START	WD	DUE	%	W1 Jan 22 W4 W5 Feb 22 W8 Jan 03 Jan 10 Jan 17 Jan 24 Jan 31 Feb 07 Feb 14 Feb 21 F
	Spr	int		03/Jan	21d	31/Jan	0%	Sprint
1	0	Sprint Planning	VU: Team A	03/Jan	1d	03/Jan	0%	Sprint Planning
2	\odot	Sprint Review	VU: Team A	28/Jan	1d	28/Jan	0%	Sprint Review
3	\odot	Sprint Retrospective	VU: Team A	31/Jan	1d	31/Jan	0%	Sprint Retrospective
	App	ole pay - Client A		10/Jan	14d	27/Jan	48%	Apple pay - Client A
5	\odot	Allow apple pay IP addresses	VU: BE Developer 1	10/Jan	5d	14/Jan	90%	Allow apple pay IP addresses
6	\odot	Creating API endpoints	VU: FE Developer 1	13/Jan	5d	19/Jan	80%	Creating API endpoints
7	\odot	Configure merchant ID certificate	VU: BE Developer 1	17/Jan	5d	21/Jan	0%	Configure merchant ID certificate
8	\odot	Building interface	VU: FE Developer 1	20/Jan	6d	27/Jan	50%	Building interface
9	\odot	Domain registration and verification	VU: BE Developer 1	24/Jan	3d	26/Jan	0%	Domain registration and verification
	We	bsite redesign - Client B		10/Jan	10d	21/Jan	0%	Website redesign - Client B
11	0	Build the navigation	VU: IFE Developer 2	10/Jan	5d	14/Jan	0%	Build the navigation
12	\odot	Create design pattern	VU: UX/UI Designer 1	10/Jan	5d	14/Jan	0%	Create design pattern
13	\odot	Build the footer	VU: IFE Developer 2	17/Jan	5d	21/Jan	096	Build the footer
14	\odot	Design the chatbot	VU: UX/UI Designer 1	17/Jan	5d	21/Jan	0%	Design the chatbot
	Filte	ers for database - Client B		13/Jan	8d	24/Jan	5%	Filters for database - Client B
16	\odot	Write the API endpoint to connect to the frontend	VU: BE Developer 2	13/Jan	7d	21/Jan	0%	Write the API endpoint to connect to the from
17	\odot	Write the API endpoint to connect to the backend	VU: FE Developer 1	14/Jan	4d	19/Jan	0%	Write the API endpoint to connect to the back
18	\odot	Build search input	VU: IFE Developer 2	20/Jan	2d	21/Jan	15%	Build search input
19	\odot	Write the query	VU: BE Developer 2	23/Jan	1d	24/Jan	40%	Write the query
	Cha	atbot - Client B		12/Jan	11d	26/Jan	0%	Chatbot - Client B
21	0	Develop the Bots sentiment analysis feature	VU: BE Developer 2	12/Jan	6d	19/Jan	0%	Develop the Bots sentiment analysis feature
22	\odot	Style the bot	VU: IFE Developer 2	17/Jan	5d	21/Jan	0%	Style the bot
23	\odot	Customize your bot profile	VU: BE Developer 2	20/Jan	3d	24/Jan	0%	Customize your bot profile
24	\odot	Write the logic	VU: FE Developer 1	24/Jan	2d	25/Jan	0%	Write the logic
25	\odot	Build bot flow	VU: BE Developer 2	25/Jan	2d	26/Jan	0%	Build bot flow
	Qua	ality Assurance		24/Jan	4d	27/Jan	0%	Quality Assurance
27	0	Website redesigned test	VU: Tester 1	24/Jan	1d	24/Jan	0%	Website redesigned test
28	0	Filter for database test	VU: Tester 1	25/Jan	1d	25/Jan	0%	Filter for database test
29	\odot	Chatbot test	VU: Tester 1	26/Jan	1d	26/Jan	0%	Chatbot test
30	(V)	Apple Pay test	VU: Tester 1	27/Jan	1d	27/Jan	096	Apple Pay test