Agile Methodologies

Assignment 1: Agile Project Planning - Create a one-page project plan for a new software feature using Agile planning techniques. Include backlog items with estimated story points and a prioritized list of user stories.

Team Size: 7 members

Project Name: Chatbot Integration for E-commerce

Project Objective: Integrate a conversational AI chatbot into our e-commerce platform to provide 24/7 customer support, personalized product recommendations, and streamlined purchasing.

Backlog Items:

(i). **User Story:** As a customer, I want to be able to ask the chatbot questions about products and receive helpful answers.

- Acceptance Criteria: The chatbot should be able to respond to common productrelated questions with accurate information.
- Estimated Story Points: 8

(ii). User Story: As a customer, I want the chatbot to provide me with personalized product recommendations based on my browsing and purchase history.

- Acceptance Criteria: The chatbot should analyze customer data to provide relevant and tailored product suggestions.
- Estimated Story Points: 10

(iii). User Story: As a customer, I want to be able to complete purchases directly through the chatbot.

- Acceptance Criteria: Customers should be able to add items to their cart, proceed to checkout, and complete transactions within the chatbot interface.
- Estimated Story Points: 10

(iv). User Story: As a developer, I want to integrate the chatbot with our existing e-commerce platform and ensure a seamless user experience.

- Acceptance Criteria: The chatbot should be fully integrated with the e-commerce platform, including product data, customer accounts, and order processing.
- Estimated Story Points: 13

Prioritized List of User Stories:

- 1. Implement chatbot to provide product information (8 story points)
- 2. Implement chatbot for personalized product recommendations (10 story points)
- 3. Implement chatbot for direct purchases (10 story points)
- 4. Implement chatbot integration with e-commerce platform (13 story points)

Timeline:

Sprint 1 (2 weeks): Complete user stories 1 and 2.

Sprint 2 (2 weeks): Complete user story 3.

Sprint 3 (1 week): Complete user story 4.

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Sprint 4 (2 weeks): Complete user story 5.

Sprint Review and Retrospective (1 week): Review completed features, gather feedback, and plan for future improvements.

Team:

Product Owner: Kriti Yadav

Scrum Master: Rakesh Varma

Development Team:

- i. Rohit Tiwari Frontend Developer
- ii. Arun Kuma Backend Developer
- iii. Raj Singh- Full-stack Developer
- iv. Mansi Vishwakarma Al/ML Engineer
- v. Ravi Patel QA Engineer

Notes:

Daily stand-up meetings will be held to track progress and address any issues.

The team will collaborate closely with customers and stakeholders throughout the project to ensure the chatbot meets their needs and expectations.

Regular demonstrations and feedback sessions will be conducted to gather input and make necessary adjustments to the project plan.

Assignment 2: Daily Standup Simulation - Write a script for a Daily Standup meeting for a development team working on the software feature from Assignment 1. Address a common challenge and incorporate a solution into the communication flow.

Solution:

Daily Standup Meeting Script:

Team gathers around in a designated area or virtual meeting room.

Facilitator: Good morning, everyone. Let's start our daily standup meeting. Today, I want to focus on addressing a common challenge we've been facing with the integration of the new chatbot. As we go around for updates, let's also brainstorm potential solutions to overcome this challenge.

Developer1: Yesterday, I worked on implementing the frontend components for selecting the chatbot UI with the e-commerce platform. Today, I plan to finalize the UI and start testing its functionality. No blockers from my end.

Developer2: Yesterday, I was troubleshooting an issue with the integration of the chatbot's personalized product recommendation feature. I made some progress in identifying the root

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cause, and today, I'll continue debugging and testing. One blocker is that I need access to the chatbot's documentation to better understand its functionality.

Developer3: Yesterday, I conducted some initial testing of the chatbot integration on our staging environment. I encountered a few discrepancies between the expected and actual responses from the chatbot. Today, I'll be documenting these issues and reaching out to the support team for clarification. No other blockers.

Developer4: Yesterday, I focused on optimizing our database schema to handle the increased transaction volume expected with the new chatbot integration. Today, I'll continue with performance tuning and monitoring. No blockers.

Developer5: Yesterday, I was working on implementing error handling mechanisms for the chatbot's purchase flow. Today, I'll be conducting stress testing to ensure our system can handle various error scenarios gracefully. No blockers.

Developer6: Yesterday, I began drafting user documentation for the new chatbot features. Today, I'll continue writing and refining the documentation based on the latest developments. No blockers from my side.

Developer7: Yesterday, I started working on automating the deployment process for our application to streamline future updates and releases. Today, I'll be configuring CI/CD pipelines for smoother integration and deployment. No blockers.

Facilitator: Thank you, team, for the updates. It's clear that we're making good progress despite the challenges we're facing with the chatbot integration. Now, let's address the blockers mentioned:

One blocker is that we need access to the chatbot's documentation. I'll follow up with our point of contact at the chatbot provider to expedite access to the documentation.

Another blocker is that we need to clarify the discrepancies encountered during testing. I'll schedule a brief sync-up meeting after this standup to discuss potential solutions to the communication issue between our backend server and the chatbot API.

Let's wrap up the standup for now and reconvene shortly for the sync-up meeting. Keep up the excellent work, everyone, and let's continue collaborating to overcome challenges and deliver a successful chatbot integration.