day 4:

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1.difference between scrum vs Kanban

Scrum and Kanban are both popular Agile methodologies used in project management, particularly in software development. Each has its own unique characteristics, advantages, and best use cases. Here's a detailed comparison between Scrum and Kanban:

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| --- | --- | --- |
| **Aspect** | **Scrum** | **Kanban** |
| Framework | Structured, with specific roles, ceremonies, and artifacts | Flexible, less prescriptive |
| Roles | Scrum Master, Product Owner, Development Team | No defined roles; team retains traditional roles |
| Iterations | Fixed-length sprints (2-4 weeks) | Continuous flow |
| Planning | Detailed sprint planning at the beginning of each sprint | Continuous planning, managing flow with WIP limits |
| Commitment | Team commits to a set of work items for the sprint | Tasks are pulled as capacity allows |
| Change Management | Changes are restricted mid-sprint | Changes can be made at any time |
| Deliverable s | Potentially shippable product increments at the end of each sprint | Continuous delivery and optimization of work flow |
| Ceremonies | Sprint Planning, Daily Stand-ups, Sprint Review, Retrospective | No prescribed ceremonies |
| Focus | Delivering a set of features in each sprint | Managing and optimizing flow of tasks |
| Artifacts | Product Backlog, Sprint Backlog, Increment | Kanban board with columns representing process stages |
| Best For | Projects with clear, iterative scope | Continuous tasks, operational work |

2. write 3 user stories with acceptance criteria.

**User Story 1:**

**As a user, I want to reset my password so that I can regain access to my account if I forget my password.**

**Acceptance Criteria:**

1. **Given** I am on the login page, **when** I click on the "Forgot Password" link, **then** I should be redirected to the password reset page.
2. **Given** I am on the password reset page, **when** I enter my registered email address and submit the form, **then** I should receive an email with a password reset link.
3. **Given** I receive the password reset email, **when** I click on the reset link, **then** I should be redirected to a page where I can enter a new password.
4. **Given** I am on the new password entry page, **when** I enter a valid new password and confirm it, **then** my password should be successfully updated, and I should be able to log in with the new password.

**User Story 2:**

**As a project manager, I want to create a new project so that I can organize tasks and assign them to team members.**

**Acceptance Criteria:**

1. **Given** I am logged in, **when** I navigate to the projects dashboard, **then** I should see an option to create a new project.
2. **Given** I am on the project’s dashboard, **when** I click on the "Create New Project" button, **then** I should be presented with a form to enter the project details (e.g., project name, description, start date, end date).
3. **Given** I fill out the project details form, **when** I submit the form, **then** the new project should be created, and I should see it listed on the projects dashboard.
4. **Given** the new project is listed, **when** I click on the project name, **then** I should be redirected to the project details page where I can further manage the project.

**User Story 3:**

**As a customer, I want to view the status of my order so that I can know when it will be delivered.**

**Acceptance Criteria:**

1. **Given** I am logged in to my account, **when** I navigate to the "My Orders" section, **then** I should see a list of my past and current orders.
2. **Given** I am on the "My Orders" page, **when** I click on an order number, **then** I should be redirected to the order details page.
3. **Given** I am on the order details page, **when** the order status is displayed, **then** I should see the current status (e.g., Processing, Shipped, Delivered) along with the estimated delivery date.
4. **Given** the order has been shipped, **when** I view the order details, **then** I should see tracking information with a link to the shipping carrier’s website for real-time updates.
5. write product backlog and Sprint backlog for your project.

**Online Flight Booking:**

### Product Backlog

The product backlog is a list of everything that needs to be done to build and improve a product. It's a prioritized collection of features, enhancements, bug fixes, tasks, and requirements. Think of it as a to-do list for the entire project.

The product backlog contains a high-level list of features and requirements that are necessary for the online flight booking system.

1. **User Authentication**
   * As a user, I want to create an account so that I can access personalized features.
   * As a user, I want to log in so that I can access my account.
   * As a user, I want to reset my password if I forget it.
2. **Flight Search**
   * As a user, I want to search for flights based on origin, destination, and dates.
   * As a user, I want to filter search results by price, airline, and number of stops.
   * As a user, I want to sort search results by price, duration, and departure time.
3. **Flight Details**
   * As a user, I want to view flight details such as departure and arrival times, layovers, and baggage information.
   * As a user, I want to see the total price including taxes and fees before booking.

### Sprint Backlog

The sprint backlog is a list of tasks selected from the product backlog that the team commits to completing during a specific sprint (usually a 1-2week period). It includes all the work that needs to be done to achieve the sprint goals.

**Sprint 1: User Authentication and Flight Search**

1. **User Authentication**
   * Task: Set up user database schema.
   * Task: Implement user registration form.
   * Task: Implement user login functionality.
   * Task: Implement password reset functionality.
   * Task: Write tests for user authentication.
2. **Flight Search**
   * Task: Design flight search form UI.
   * Task: Implement flight search functionality.
   * Task: Integrate flight data API.
   * Task: Implement filtering options (price, airline, stops).
   * Task: Implement sorting options (price, duration, departure time).

**Sprint 3: User Profile and Notifications**

1. **User Profile and Booking Management**
   * Task: Implement user profile page.
   * Task: Display booking history.
   * Task: Implement booking cancellation and modification.
   * Task: Save frequent flyer information.
   * Task: Write tests for user profile and booking management.
2. **Notifications**
   * Task: Implement flight status change notifications.
   * Task: Implement upcoming flight reminders.
   * Task: Write tests for notifications.

4.set a Kanban board for your project.

**Kanban Board for Online Flight Booking**

|  |  |  |  |
| --- | --- | --- | --- |
| Backlog | To do | In Progress | Completed |
| User Authentication | Create user registration form | Implement account creation process | Done |
| Flight Search | Display flight details from search | Implement flight selection and booking | Done |
| Flight Details | Display flight details from search results | Integrate seat selection feature | Done |
| Booking and Payment | Implement flight selection and booking flow | Implement booking cancellation | Done |
| Notification | Send booking confirmation email | Implement flight status change notifications | Done |
| Customer Support | Implement customer support contact form | Create FAQ section | Done |