### **Use Cases:**

1. Use Case: Browse Product Recommendations (Customer)

Main Success Scenario (MSS):

1. Customer logs into the application.
2. System displays a product banner with recommended products.
3. Customer interacts with the product banner (e.g., views details, adds to cart, or wishlist).
4. System updates customer profile based on interaction.

Extensions:

* At step 2: If the system fails to fetch recommendations, it displays an error message.
* At step 3: If a customer isn't interested, they can skip or provide feedback.

2. Use Case: Update Product Information (Merchant)

Main Success Scenario (MSS):

1. Merchant logs into the merchant portal.
2. Merchant selects a product to update.
3. System displays current product details.
4. Merchant modifies product details and submits.
5. System validates and updates the product information.

Extensions:

* At step 4: If entered data is invalid, the system prompts the merchant to correct it.

3. Use Case: Monitor System Health (System Administrator)

Main Success Scenario (MSS):

1. Admin logs into the admin dashboard.
2. System displays current system health metrics.
3. Admin identifies any issues and takes necessary actions.
4. System responds and updates the metrics accordingly.

4. Use Case: Analyze Recommendation Data (Data Analyst/Scientist)

Main Success Scenario (MSS):

1. Analyst accesses the analytics dashboard.
2. System displays metrics related to recommendation interactions.
3. Analyst extracts insights and possibly tweaks the recommendation model.

5. Use Case: Update Content Layout (Content Manager)

Main Success Scenario (MSS):

1. Content manager logs into the content management system.
2. Manager modifies the layout/design of the product banners.
3. System updates the display for end-users accordingly.

6. Use Case: Assist Customers (Customer Support Representative)

Main Success Scenario (MSS):

1. Customer reaches out with a query or issue.
2. Support representative accesses the system to verify details.
3. Representative resolves the query or escalates it.

7. Use Case: Set System Objectives (Product Manager/Owner)

Main Success Scenario (MSS):

1. Product manager reviews current system performance.
2. Manager sets new objectives or adjusts existing ones.
3. System or development team makes necessary adjustments.

8. Use Case: Test Recommendation Feature (QA Tester)

Main Success Scenario (MSS):

1. QA tester initiates the recommendation feature.
2. Tester interacts with recommendations as a mock user.
3. System behaves as expected or tester reports issues.

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### Swim Lanes:

1. Customer
2. Merchant
3. System/Admin
4. Data Analyst/Scientist
5. Content Manager
6. QA Tester

### Process Steps:

1. Customer:

* Logs into the application.
* Interacts with displayed product recommendations.
* Provides feedback on product recommendations (if applicable).

2. Merchant:

* Logs into the merchant portal.
* Updates or provides product details and information.

3. System/Admin:

* Extracts and processes merchant data.
* Generates product recommendations based on the data and existing algorithms.
* Displays product banner with the recommendations to the customer.
* Monitors system health, addresses technical issues, and performs regular maintenance.

4. Data Analyst/Scientist:

* Analyses customer interaction metrics with recommendations.
* Tweak or refine the recommendation algorithm based on insights.

5. Content Manager:

* Modifies the design/layout of the product recommendation banner.
* Ensures quality and clarity of content displayed to the customers.

6. QA Tester:

* Initiates and tests the recommendation feature.
* Interacts with the system, replicating potential customer behaviors.
* Reports any bugs or issues.