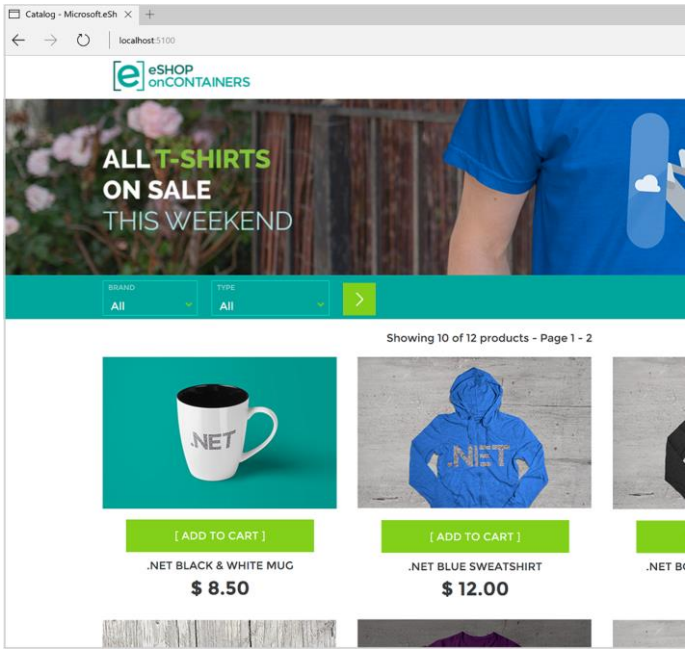
Summary

The eShopOnContainers test case is a microservices-based e-commerce platform developed by Microsoft. It demonstrates the use of microservices architecture to build a scalable, resilient, and agile system for processing orders, managing catalogs, customers, and payments. The test case includes scenarios that test the system's functionality and resilience.



eShopOnContainers Test Case

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Functional testing

Test 1: Create Order success flow, mss

Name: Hana Danis

Requirement: Order Management

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Sanity, Functional

	Test steps	Expected result
1	Basket API service sends a message to RabbitMQ-> queue: Ordering -> Routing key: UserCheckoutAcceptedIntegrationEvent	a. A new order entity was created with OrderStatusID =1 in DB b. in order remove items form basket, ordering service send a message to RabbitMQ-> queue: Basket -> Routing key: OrderStartedIntegrationEvent
2	Turn up Ordering-Backgroudtasks to find the record with OrderStatusID =1	a. Order entity updated Set OrderStatusID =2 in DB b. To verify that item in stock, a message sent to RabbitMQ-> queue: Catalog -> Routing key: OrderStatusChangedToAwaitingValidationIntegrationEvent
3	Catalog Sends a message to RabbitMQ-> queue: Ordering -> Routing key: OrderStockConfirmedIntegrationEvent	a. Order entity updated Set OrderStatusID = 3 in DB b. In Order Create payment, Ordering sends a message to RabbitMQ-> queue: Payment -> Routing key: OrderStatusChangedToStockConfirmedIntegrationEvent
4	Payment service sends a message to RabbitMQ-> queue: Ordering-> Routing key: OrderPaymentSucceededIntegrationEvent	Order entity updated Set OrderStatusID =4 in DB and process is done here

Test 2: Create Order with failed payment

Name: Hana Danis

Requirement: Order Management, Payment Processing

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Functional

	Test steps	Expected result
1	Basket API service sends a message to RabbitMQ-> queue: Ordering -> Routing key: UserCheckoutAcceptedIntegrationEvent	a. A new order entity was created with OrderStatusID =1 in DB b. in order remove items form basket, ordering service send a message to RabbitMQ-> queue: Basket -> Routing key: OrderStartedIntegrationEvent
2	Turn up Ordering-Backgroudtasks to find the record with OrderStatusID =1	a. Order entity updated Set OrderStatusID =2 in DB b. To verify that item in stock, a message sent to RabbitMQ-> queue: Catalog -> Routing key: OrderStatusChangedToAwaitingValidationIntegrationEvent
3	Catalog Sends a message to RabbitMQ-> queue: Ordering -> Routing key: OrderStockConfirmedIntegrationEvent	a. Order entity updated Set OrderStatusID = 3 in DB b. In Order Create payment, Ordering sends a message to RabbitMQ-> queue: Payment -> Routing key: OrderStatusChangedToStockConfirmedIntegrationEvent
4	Payment service sends a message to RabbitMQ-> queue: Ordering-> Routing key: OrderPaymentFailedIntegrationEvent	Order entity updated Set OrderStatusID =6 in DB and process is done here

Test 3: Create Order with out-of-stock items

Name: Hana Danis

Requirement: Order Management, Inventory Management

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Functional

	Test steps	Expected result
1	Basket API service sends a message to RabbitMQ-> queue: Ordering -> Routing key: UserCheckoutAcceptedIntegrationEvent	a. A new order entity was created with OrderStatusID =1 in DB b. in order remove items form basket, ordering service send a message to RabbitMQ-> queue: Basket -> Routing key: OrderStartedIntegrationEvent
2	Turn up Ordering-Backgroudtasks to find the record with OrderStatusID =1	a. Order entity updated Set OrderStatusID =2 in DB b. To verify that item in stock, a message sent to RabbitMQ-> queue: Catalog -> Routing key: OrderStatusChangedToAwaitingValidationIntegrationEvent
3	Catalog Sends a message to RabbitMQ-> queue: Ordering -> Routing key: OrderStockRejectedIntegrationEvent	Order entity updated Set OrderStatusID = 6 in DB and the process is done here

Test 4: Canceling an order from status Submitted

Name: Hana Danis

Requirement: Order Management, Order Tracking

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Functional

	Test steps	Expected result
1	Basket API service sends a message to RabbitMQ-> queue: Ordering -> Routing key: UserCheckoutAcceptedIntegrationEvent	a. A new order entity was created with OrderStatusID =1 in DB b. in order remove items form basket, ordering service send a message to RabbitMQ-> queue: Basket -> Routing key: OrderStartedIntegrationEvent
2	User clicks cancel	Order entity updated Set OrderStatusID =6 in DB and process is done here

Test 5: Canceling an order from status Awaitingvalidation

Name: Hana Danis

Requirement: Order Management, Order Tracking

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Functional

	Test steps	Expected result
1	Basket API service sends a message to RabbitMQ-> queue: Ordering -> Routing key: UserCheckoutAcceptedIntegrationEvent	a. A new order entity was created with OrderStatusID =1 in DB b. in order remove items form basket, ordering service send a message to RabbitMQ-> queue: Basket -> Routing key: OrderStartedIntegrationEvent
2	Turn up Ordering-Backgroudtasks to find the record with OrderStatusID =1	a. Order entity updated Set OrderStatusID =2 in DB b. To verify that item in stock, a message sent to RabbitMQ-> queue: Catalog -> Routing key: OrderStatusChangedToAwaitingValidationIntegrationEvent
3	User clicks cancel	Order entity updated Set OrderStatusID =6 in DB and process is done here

Test 6: Canceling an order from status Stockconfirmed

Name: Hana Danis

Requirement: Order Management, Order Tracking

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Functional

	Test steps	Expected result
1	Basket API service sends a message to RabbitMQ-> queue: Ordering -> Routing key: UserCheckoutAcceptedIntegrationEvent	a. A new order entity was created with OrderStatusID =1 in DB b. in order remove items form basket, ordering service send a message to RabbitMQ-> queue: Basket -> Routing key: OrderStartedIntegrationEvent
2	Turn up Ordering-Backgroudtasks to find the record with OrderStatusID =1	a. Order entity updated Set OrderStatusID =2 in DB b. To verify that item in stock, a message sent to RabbitMQ-> queue: Catalog -> Routing key: OrderStatusChangedToAwaitingValidationIntegrationEvent
3	Catalog Sends a message to RabbitMQ-> queue: Ordering -> Routing key: OrderStockConfirmedIntegrationEvent	a. Order entity updated Set OrderStatusID = 3 in DB b. In Order Create payment, Ordering sends a message to RabbitMQ-> queue: Payment -> Routing key: OrderStatusChangedToStockConfirmedIntegrationEvent
4	User clicks cancel	Order entity updated Set OrderStatusID =6 in DB and process is done here

Test 7: Get all orders

Name: Hana Danis

Requirement: Order Management, Order Tracking

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Functional

	Test steps	Expected result
1	User click get all orders	ordering API accepted the request and returned all orders with status code 200

Test 8: Get an order by ID

Name: Hana Danis

Requirement: Order Management, Order Tracking

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Functional

	Test steps	Expected result
1	User click get order by id	ordering API accepted the request and returned the order with status code 200

Test 9: Update order from status Paid

Name: Hana Danis

Requirement: Order Management, Order Tracking

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Functional

	Test steps	Expected result
1	Basket API service sends a message to RabbitMQ-> queue: Ordering -> Routing key: UserCheckoutAcceptedIntegrationEvent	a. A new order entity was created with OrderStatusID =1 in DB b. in order remove items form basket, ordering service send a message to RabbitMQ-> queue: Basket -> Routing key: OrderStartedIntegrationEvent
2	Turn up Ordering-Backgroudtasks to find the record with OrderStatusID =1	a. Order entity updated Set OrderStatusID =2 in DB b. To verify that item in stock, a message sent to RabbitMQ-> queue: Catalog -> Routing key: OrderStatusChangedToAwaitingValidationIntegrationEvent
3	Catalog Sends a message to RabbitMQ-> queue: Ordering -> Routing key: OrderStockConfirmedIntegrationEvent	a. Order entity updated Set OrderStatusID = 3 in DB b. In Order Create payment, Ordering sends a message to RabbitMQ-> queue: Payment -> Routing key: OrderStatusChangedToStockConfirmedIntegrationEvent
4	Payment service sends a message to RabbitMQ-> queue: Ordering-> Routing key: OrderPaymentSucceededIntegrationEvent	Order entity updated Set OrderStatusID =4 in DB
5	User clicks ship	Order entity updated Set OrderStatusID =5 in DB and process is done here

Non-functional tests

Test 10: Canceling an order from status Paid

Name: Hana Danis

Requirement: Order Management

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Non-functional

	Test steps	Expected result
1	Basket API service sends a message to RabbitMQ-> queue: Ordering -> Routing key: UserCheckoutAcceptedIntegrationEvent	a. A new order entity was created with OrderStatusID =1 in DB b. in order remove items form basket, ordering service send a message to RabbitMQ-> queue: Basket -> Routing key: OrderStartedIntegrationEvent
2	Turn up Ordering-Backgroudtasks to find the record with OrderStatusID =1	a. Order entity updated Set OrderStatusID =2 in DB b. To verify that item in stock, a message sent to RabbitMQ-> queue: Catalog -> Routing key: OrderStatusChangedToAwaitingValidationIntegrationEvent
3	Catalog Sends a message to RabbitMQ-> queue: Ordering -> Routing key: OrderStockConfirmedIntegrationEvent	a. Order entity updated Set OrderStatusID = 3 in DB b. In Order Create payment, Ordering sends a message to RabbitMQ-> queue: Payment -> Routing key: OrderStatusChangedToStockConfirmedIntegrationEvent
4	Payment service sends a message to RabbitMQ-> queue: Ordering-> Routing key: OrderPaymentSucceededIntegrationEvent	Order entity updated Set OrderStatusID =4 in DB
5	User clicks cancel	ordering API accepted the request and returned status code 400

Test 11: Canceling an order from status Shipped

Name: Hana Danis

Requirement: Order Management

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Non-functional

	Test steps	Expected result
1	Basket API service sends a message to RabbitMQ-> queue: Ordering -> Routing key: UserCheckoutAcceptedIntegrationEvent	a. A new order entity was created with OrderStatusID =1 in DB b. in order remove items form basket, ordering service send a message to RabbitMQ-> queue: Basket -> Routing key: OrderStartedIntegrationEvent
2	Turn up Ordering-Backgroudtasks to find the record with OrderStatusID =1	a. Order entity updated Set OrderStatusID =2 in DB b. To verify that item in stock, a message sent to RabbitMQ-> queue: Catalog -> Routing key: OrderStatusChangedToAwaitingValidationIntegrationEvent
3	Catalog Sends a message to RabbitMQ-> queue: Ordering -> Routing key: OrderStockConfirmedIntegrationEvent	a. Order entity updated Set OrderStatusID = 3 in DB b. In Order Create payment, Ordering sends a message to RabbitMQ-> queue: Payment -> Routing key: OrderStatusChangedToStockConfirmedIntegrationEvent
4	Payment service sends a message to RabbitMQ-> queue: Ordering-> Routing key: OrderPaymentSucceededIntegrationEvent	Order entity updated Set OrderStatusID =4 in DB
5	User clicks ship	Order entity updated Set OrderStatusID =5 in DB
6	User clicks cancel	ordering API accepted the request and returned status code 400

Test 12: Get order with a non-existent number

Name: Hana Danis

Requirement: Order Management

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Non-functional

	Test steps	Expected result
1	User click get order by id with non-existent id	ordering API accepted the request and returned status code 404

Test 13: Update order from status Submitted

Name: Hana Danis

Requirement: Order Management

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Non-functional

	Test steps	Expected result
1	Basket API service sends a message to RabbitMQ-> queue: Ordering -> Routing key: UserCheckoutAcceptedIntegrationEvent	a. A new order entity was created with OrderStatusID =1 in DB b. in order remove items form basket, ordering service send a message to RabbitMQ-> queue: Basket -> Routing key: OrderStartedIntegrationEvent
3	User clicks ship	ordering API accepted the request and returned status code 400

Test 14: Update an order from status Awaitingvalidation

Name: Hana Danis

Requirement: Order Management

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Non-functional

	Test steps	Expected result
1	Basket API service sends a message to RabbitMQ-> queue: Ordering -> Routing key: UserCheckoutAcceptedIntegrationEvent	a. A new order entity was created with OrderStatusID =1 in DB b. in order remove items form basket, ordering service send a message to RabbitMQ-> queue: Basket -> Routing key: OrderStartedIntegrationEvent
2	Turn up Ordering-Backgroudtasks to find the record with OrderStatusID =1	a. Order entity updated Set OrderStatusID =2 in DB b. To verify that item in stock, a message sent to RabbitMQ-> queue: Catalog -> Routing key: OrderStatusChangedToAwaitingValidationIntegrationEvent
3	User clicks ship	ordering API accepted the request and returned status code 400

Test 15: Update an order from status Stockconfirmed

Name: Hana Danis

Requirement: Order Management

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Non-functional

	Test steps	Expected result
1	Basket API service sends a message to RabbitMQ-> queue: Ordering -> Routing key: UserCheckoutAcceptedIntegrationEvent	a. A new order entity was created with OrderStatusID =1 in DB b. in order remove items form basket, ordering service send a message to RabbitMQ-> queue: Basket -> Routing key: OrderStartedIntegrationEvent
2	Turn up Ordering-Backgroudtasks to find the record with OrderStatusID =1	a. Order entity updated Set OrderStatusID =2 in DB b. To verify that item in stock, a message sent to RabbitMQ-> queue: Catalog -> Routing key: OrderStatusChangedToAwaitingValidationIntegrationEvent
3	Catalog Sends a message to RabbitMQ-> queue: Ordering -> Routing key: OrderStockConfirmedIntegrationEvent	a. Order entity updated Set OrderStatusID = 3 in DB b. In Order Create payment, Ordering sends a message to RabbitMQ-> queue: Payment -> Routing key: OrderStatusChangedToStockConfirmedIntegrationEvent
4	User clicks ship	ordering API accepted the request and returned status code 400

Test 16: Update an order from status Cancelled

Name: Hana Danis

Requirement :Order Management

Preconditions: microservice Ordering ,Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Non-functional

	Test steps	Expected result
1	Basket API service sends a message to RabbitMQ-> queue: Ordering -> Routing key: UserCheckoutAcceptedIntegrationEvent	a. A new order entity was created with OrderStatusID =1 in DB b. in order remove items form basket, ordering service send a message to RabbitMQ-> queue: Basket -> Routing key: OrderStartedIntegrationEvent
2	Turn up Ordering-Backgroudtasks to find the record with OrderStatusID =1	a. Order entity updated Set OrderStatusID =2 in DB b. To verify that item in stock, a message sent to RabbitMQ-> queue: Catalog -> Routing key: OrderStatusChangedToAwaitingValidationIntegrationEvent
3	Catalog Sends a message to RabbitMQ-> queue: Ordering -> Routing key: OrderStockConfirmedIntegrationEvent	a. Order entity updated Set OrderStatusID = 3 in DB b. In Order Create payment, Ordering sends a message to RabbitMQ-> queue: Payment -> Routing key: OrderStatusChangedToStockConfirmedIntegrationEvent
4	User clicks cancel	Order entity updated Set OrderStatusID =6
5	User clicks ship	ordering API accepted the request and returned status code 400

Performance testing

Test 17: Crash the server after any of the steps in mss

Name: Hana Danis

Requirement: Order Management, Reliability

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Performance

	Test steps	Expected result
1	Basket API service sends a message to RabbitMQ-> queue: Ordering -> Routing key: UserCheckoutAcceptedIntegrationEvent	a. A new order entity was created with OrderStatusID =1 in DB b. in order remove items form basket, ordering service send a message to RabbitMQ-> queue: Basket -> Routing key: OrderStartedIntegrationEvent
2	Crash and restart Ordering service	Order entity was updated to OrderStatusID = 1 in the DB
3	Turn up Ordering-Backgroudtasks to find the record with OrderStatusID =1	a. Order entity updated Set OrderStatusID =2 in DB b. To verify that item in stock, a message sent to RabbitMQ-> queue: Catalog -> Routing key: OrderStatusChangedToAwaitingValidationIntegrationEvent
4	Crash and restart Ordering-Backgroudtasks service	Order entity was updated to OrderStatusID = 2 in the DB
5	Catalog Sends a message to RabbitMQ-> queue: Ordering -> Routing key: OrderStockConfirmedIntegrationEvent	a. Order entity updated Set OrderStatusID = 3 in DB b. In Order Create payment, Ordering sends a message to RabbitMQ-> queue: Payment -> Routing key: OrderStatusChangedToStockConfirmedIntegrationEvent
6	Crash and restart Ordering service	Order entity was updated to OrderStatusID = 3 in the DB
7	Payment service send a message to RabbitMQ-> queue: Ordering-> Routing key: OrderPaymentSucceededIntegrationEvent	Order entity updated Set OrderStatusID =4 in DB
8	Crash and restart Ordering service	Order entity was updated to OrderStatusID = 4 in the DB

Test 18: Crashed the server after step 1 in mss

Name: Hana Danis

Requirement: Order Management, Reliability

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Performance

	Test steps	Expected result
1	Basket API service sends a message to RabbitMQ-> queue: Ordering -> Routing key: UserCheckoutAcceptedIntegrationEvent	a. A new order entity was created with OrderStatusID =1 in DB b. in order remove items form basket, ordering service send a message to RabbitMQ-> queue: Basket -> Routing key: OrderStartedIntegrationEvent
2	Crash and restart Ordering service	Order entity was updated to OrderStatusID = 1 in the DB
3	Turn up Ordering-Backgroudtasks to find the record with OrderStatusID =1	a. Order entity updated Set OrderStatusID =2 in DB b. To verify that item in stock, a message sent to RabbitMQ-> queue: Catalog -> Routing key: OrderStatusChangedToAwaitingValidationIntegrationEvent
4	Catalog Sends a message to RabbitMQ-> queue: Ordering -> Routing key: OrderStockConfirmedIntegrationEvent	a. Order entity updated Set OrderStatusID = 3 in DB b. In Order Create payment, Ordering sends a message to RabbitMQ-> queue: Payment -> Routing key: OrderStatusChangedToStockConfirmedIntegrationEvent
5	Payment service send a message to RabbitMQ-> queue: Ordering-> Routing key: OrderPaymentSucceededIntegrationEvent	Order entity updated Set OrderStatusID =4 in DB

Test 19: Crashed the server after step 2 in mss

Name: Hana Danis

Requirement: Order Management, Reliability

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Performance

	Test steps	Expected result
1	Basket API service sends a message to RabbitMQ-> queue: Ordering -> Routing key: UserCheckoutAcceptedIntegrationEvent	a. A new order entity was created with OrderStatusID =1 in DB b. in order remove items form basket, ordering service send a message to RabbitMQ-> queue: Basket -> Routing key: OrderStartedIntegrationEvent
2	Turn up Ordering-Backgroudtasks to find the record with OrderStatusID =1	a. Order entity updated Set OrderStatusID =2 in DB b. To verify that item in stock, a message sent to RabbitMQ-> queue: Catalog -> Routing key: OrderStatusChangedToAwaitingValidationIntegrationEvent
3	Crash and restart Ordering service	Order entity was updated to OrderStatusID = 2 in the DB
4	Catalog Sends a message to RabbitMQ-> queue: Ordering -> Routing key: OrderStockConfirmedIntegrationEvent	a. Order entity updated Set OrderStatusID = 3 in DB b. In Order Create payment, Ordering sends a message to RabbitMQ-> queue: Payment -> Routing key: OrderStatusChangedToStockConfirmedIntegrationEvent
5	Payment service send a message to RabbitMQ-> queue: Ordering-> Routing key: OrderPaymentSucceededIntegrationEvent	Order entity updated Set OrderStatusID =4 in DB

Test 20: Crashed the server after step 3 in mss

Name: Hana Danis

Requirement: Order Management, Reliability

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Performance

	Test steps	Expected result
1	Basket API service sends a message to RabbitMQ-> queue: Ordering -> Routing key: UserCheckoutAcceptedIntegrationEvent	a. A new order entity was created with OrderStatusID =1 in DB b. in order remove items form basket, ordering service send a message to RabbitMQ-> queue: Basket -> Routing key: OrderStartedIntegrationEvent
2	Turn up Ordering-Backgroudtasks to find the record with OrderStatusID =1	a. Order entity updated Set OrderStatusID =2 in DB b. To verify that item in stock, a message sent to RabbitMQ-> queue: Catalog -> Routing key: OrderStatusChangedToAwaitingValidationIntegrationEvent
3	Catalog Sends a message to RabbitMQ-> queue: Ordering -> Routing key: OrderStockConfirmedIntegrationEvent	a. Order entity updated Set OrderStatusID = 3 in DB b. In Order Create payment, Ordering sends a message to RabbitMQ-> queue: Payment -> Routing key: OrderStatusChangedToStockConfirmedIntegrationEvent
4	Crash and restart Ordering service	Order entity was updated to OrderStatusID = 3 in the DB
5	Payment service send a message to RabbitMQ-> queue: Ordering-> Routing key: OrderPaymentSucceededIntegrationEvent	Order entity updated Set OrderStatusID =4 in DB

Test 21: Crashed the server after step 4 in mss

Name: Hana Danis

Requirement: Order Management, Reliability

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Performance

	Test steps	Expected result
1	Basket API service sends a message to RabbitMQ-> queue: Ordering -> Routing key: UserCheckoutAcceptedIntegrationEvent	c. A new order entity was created with OrderStatusID =1 in DB d. in order remove items form basket, ordering service send a message to RabbitMQ-> queue: Basket -> Routing key: OrderStartedIntegrationEvent
2	Turn up Ordering-Backgroudtasks to find the record with OrderStatusID =1	c. Order entity updated Set OrderStatusID =2 in DB d. To verify that item in stock, a message sent to RabbitMQ-> queue: Catalog -> Routing key: OrderStatusChangedToAwaitingValidationIntegrationEvent
3	Catalog Sends a message to RabbitMQ-> queue: Ordering -> Routing key: OrderStockConfirmedIntegrationEvent	c. Order entity updated Set OrderStatusID = 3 in DB d. In Order Create payment, Ordering sends a message to RabbitMQ-> queue: Payment -> Routing key: OrderStatusChangedToStockConfirmedIntegrationEvent
4	Payment service send a message to RabbitMQ-> queue: Ordering-> Routing key: OrderPaymentSucceededIntegrationEvent	Order entity updated Set OrderStatusID =4 in DB
5	Crash and restart Ordering service	Order entity was updated to OrderStatusID = 4 in the DB

Load Tests

Test 22: Check loads on creating an order

Name: Hana Danis

Requirement: Order Management, Scalability

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Load

	Test steps	Expected result
1	Basket API service sends a message to RabbitMQ-> queue: Ordering -> Routing key: UserCheckoutAcceptedIntegrationEvent	a. A new order entity was created with OrderStatusID =1 in DB b. in order remove items form basket, ordering service send a message to RabbitMQ-> queue: Basket -> Routing key: OrderStartedIntegrationEvent
2	Turn up Ordering-Backgroudtasks to find the record with OrderStatusID =1	a. Order entity updated Set OrderStatusID =2 in DB b. To verify that item in stock, a message sent to RabbitMQ-> queue: Catalog -> Routing key: OrderStatusChangedToAwaitingValidationIntegrationEvent
3	Catalog Sends a message to RabbitMQ-> queue: Ordering -> Routing key: OrderStockConfirmedIntegrationEvent	a. Order entity updated Set OrderStatusID = 3 in DB b. In Order Create payment, Ordering sends a message to RabbitMQ-> queue: Payment -> Routing key: OrderStatusChangedToStockConfirmedIntegrationEvent
4	Payment service send a message to RabbitMQ-> queue: Ordering-> Routing key: OrderPaymentSucceededIntegrationEvent	Order entity updated Set OrderStatusID =4 in DB
5	Repeat steps 1-4	a. The microservice should be able to handle at least 100 orders within one hour without any errors or delays. b. All the order processing steps should be completed successfully for each incoming order message. c. The Order entity status should be updated correctly in the database after each order processing step. All the messages sent to the RabbitMQ queues with the corresponding routing keys should be received and processed successfully by the microservice.

Security Tests

Test 23: cancel order from another user

Name: Hana Danis

Requirement: Security

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Security

	Test steps	Expected result
1	User click Cancel Order by ID with ID from another user	ordering API accepted the request and returned status code 400

Test 24: ship order from another user

Name: Hana Danis

Requirement: Security

Preconditions: microservice Ordering, Identity running and connected to the required RabbitMQ queues, database is set up with the required tables and entities.

Test group: Security

	Test steps	Expected result
1	User click Ship Order by ID with ID from another user	ordering API accepted the request and returned status code 400