Use Case Description

eShop Authentication Diagram

Use case:	Create account
Use case ID:	UC 01
Actor(s):	Customer
Brief description:	The Customer creates a user account for the eShop.
Pre-conditions:	The Customer visits the eShop's website.
Post-conditions:	The Customer uses the user account to log in to the eShop.
Main success scenario:	1. The Customer selects "create account". 2. The Customer is redirected to the registration page. 3. The Customer fills in their username and selects a password. 4. The Customer submits the registration form. 5. The Customer receives a verification email and has to verify their email address by clicking on a link. 6. The Customer will be forwarded to the store front and has successfully created a user account.
Extensions:	At every point, a user can opt out.
Priority:	Low
Performance target:	Response time should be less than 50 ms. The system should be able to process 5000 registrations at one point in time.
Issues:	

eShop Authentication Diagram

Use case:	Log in to eShop
Use case ID:	UC 02
Actor(s):	Customer
Brief description:	The Customer logs in to the eShop.
Pre-conditions:	1. The Customer visits the eShop's website. 2. The Customer has already created a user account.
Post-conditions:	The Customer has access to the eShop's areas that require a user account.
Main success scenario:	1. The Customer selects "log in". 2. The Customer is redirected to the login page. 3. The Customer fills in username and password. 4. The Customer submits the login form. 5. The user is authenticated in a way that the provided username and password are validated. 6. The Customer is successfully logged in to the eShop.
Extensions:	The Customer is automatically logged out when the session expires.
Priority:	High
Performance target:	Response time should be less than 50 ms.
Issues:	

Use case:	Set price alert

Use case ID:	UC 03
Actor(s):	Customer
Brief description:	The Customer sets a price alert, i.e. sets an alarm to get notified when the price of a monitored product passes a threshold.
Pre-conditions:	1. The Customer is logged in. 2. The Customer views a product.
Post-conditions:	The Customer gets notified when the price of the monitored product passes a threshold.
Main success scenario:	1. The Customer selects “set price alert” on the product page. 2. The Customer sets a threshold for the alert. 3. The Customer saves the entry.
Extensions:	The eShop sends an email to the Customer when the price of a monitored product passes the selected threshold.
Priority:	Low
Performance target:	
Issues:	

Use case:	View product
Use case ID:	UC 04
Actor(s):	Customer
Brief description:	The Customer views a product in the eShop.
Pre-conditions:	• The Customer visits the eShop’s website. • Products need to be in the inventory.
Post-conditions:	The Customer closes the product page.
Main success scenario:	1. The Customer selects a product on the list of available products. 2. The Customer is redirected to the product page. 3. The available product information is displayed.
Extensions:	• The Customer can navigate back to the product list and view another product. • The Customer sees product suggestions of the same product category.
Priority:	High
Performance target:	Response time should be less than 100 ms.
Issues:	

Use case:	Buy product
Use case ID:	UC 05
Actor(s):	Customer
Brief description:	The Customer buys a product.
Pre-conditions:	1. The Customer is logged in. 2. The Customer views a product.
Post-conditions:	The product is shipped.
Main success scenario:	1. The Customer clicks on “add to shopping cart”. 2. The Customer clicks on “buy product”. 3. The Customer chooses the shipping address. 4. The Customer chooses the payment form.

	5. The Customer clicks on “finish order process”. 6. The Customer will get a notification that a product was bought. 7. The Customer will get a notification that a product is out for delivery. 8. The Customer will get a notification that a product was delivered.
Extensions:	The Customer can rate the purchased product.
Priority:	Medium
Performance target:	The system should be able to handle 10 000 transactions at once.
Issues:	

Use case:	Rate product
Use case ID:	UC 06
Actor(s):	Customer
Brief description:	The Customer rates a purchased product.
Pre-conditions:	1. The Customer is logged in. 2. The Customer views a product.
Post-conditions:	The Customer receives a confirmation of having rated the product.
Main success scenario:	1. The Customer clicks on “rate product”. 2. The Customer rates the product with stars. 3. The Customer submits the rating form.
Extensions:	
Priority:	Low
Performance target:	
Issues:	

Use case:	Add product
Use case ID:	UC 07
Actor(s):	Vendor
Brief description:	The Vendor adds a product to the inventory.
Pre-conditions:	• Vendor accounts need to be in the database. • The Vendor is logged in.
Post-conditions:	The product appears in the eShop.
Main success scenario:	1. The Vendor clicks on “add product”. 2. The Vendor fills in the required information for adding a new product. 3. The new product is successfully added to the Vendor’s inventory.
Extensions:	• The Customer can buy the added product. • The Vendor can adjust the price and update the current stock of the product. Note: Added products cannot be deleted to preserve the product ID for future product related processes (e.g. user requests).
Priority:	Low
Performance target:	Response time should be less than 50 ms
Issues:	

Use case:	Adjust price
Use case ID:	UC 08
Actor(s):	Vendor
Brief description:	The Vendor adjusts the price of a product in the inventory.
Pre-conditions:	• The Vendor is logged in. • The Vendor must have already added some products.
Post-conditions:	The product is displayed with the adjusted price.
Main success scenario:	1. The Vendor clicks on “adjust price”. 2. The Vendor receives a suggested price based on the result of a web crawler. 3. The Vendor accepts the suggested price or chooses to select a different price. 4. The Vendor saves the updated product information. 5. The price is successfully updated.
Extensions:	-
Priority:	Medium
Performance target:	Web crawler price suggestion should not take longer than 2 sec (suggested time by google).
Issues:	

Use case:	Decrease stock
Use case ID:	UC 09
Actor(s):	Vendor
Brief description:	The Vendor decreases the availability of an existing product in the inventory.
Pre-conditions:	• The Vendor is logged in. • The product stock is owned by the Vendor. • The product stock is available (was added). • The product stock availability is more than 0.
Post-conditions:	The product is displayed with the updated availability.
Main success scenario:	1. The Vendor can call the “decrease stock” operation. 2. The Vendor sets the decreased number of available products. 3. The Vendor confirms the save of the updated product information. 4. The availability of the product is successfully decreased.
Extensions:	If the availability is set to zero, in the eShop the product is listed as out of stock.
Priority:	Medium
Performance target:	Updated availability on the front-end will be refreshed less than 1 minutes after the database propagation.
Issues:	

Use case:	Increase stock
Use case ID:	UC 10
Actor(s):	Vendor
Brief description:	The Vendor increases the availability of a created product in the inventory.
Pre-conditions:	The Vendor is logged in. The product stock is owned by the Vendor. The product stock is available (was created).

Post-conditions:	The product is displayed with the updated availability.
Main success scenario:	1. The Vendor will call "increase stock" operation. 2. The Vendor sets the increased number of available products. 3. The Vendor saves the updated product information. 4. The availability of the product is successfully increased.
Extensions:	Stock is bounded (cannot be increased over a certain limit).
Priority:	Medium
Performance target:	10000 Vendors should be able to increase the stock at the same time
Issues:	

eShop System Administration Diagram

Use case:	Update service
Use case ID:	UC 11
Actor(s):	Administrator
Brief description:	The Administrator maintains the system by updating services in the eShop.
Pre-conditions:	1. New code for a microservice is available. 2. The new code was tested. 3. The Administrator is logged in to GitLab.
Post-conditions:	No unwanted side effects occur on the eShop after the deployment.
Main success scenario:	The deployment is successfully completed.
Extensions:	A roll back of the deployment is possible.
Priority:	High.
Performance target:	
Issues:	

eShop System Administration Diagram

Use case:	Deploy service
Use case ID:	UC 12
Actor(s):	Administrator
Brief description:	The Administrator can deploy new services to the eShop.
Pre-conditions:	4. A new service is available. 5. The new code was tested. 6. The Administrator is logged in to GitLab.
Post-conditions:	No unwanted side effects occur on the eShop after the deployment.
Main success scenario:	The deployment is successfully completed.
Extensions:	A roll back of the deployment is possible.
Priority:	High.
Performance target:	
Issues:	