

The background features abstract, flowing wavy lines in shades of red and blue, creating a dynamic and modern aesthetic.

# E-COMMERCE ONLINE SHOPPING DESIGN MODEL

## UML DIAGRAMS

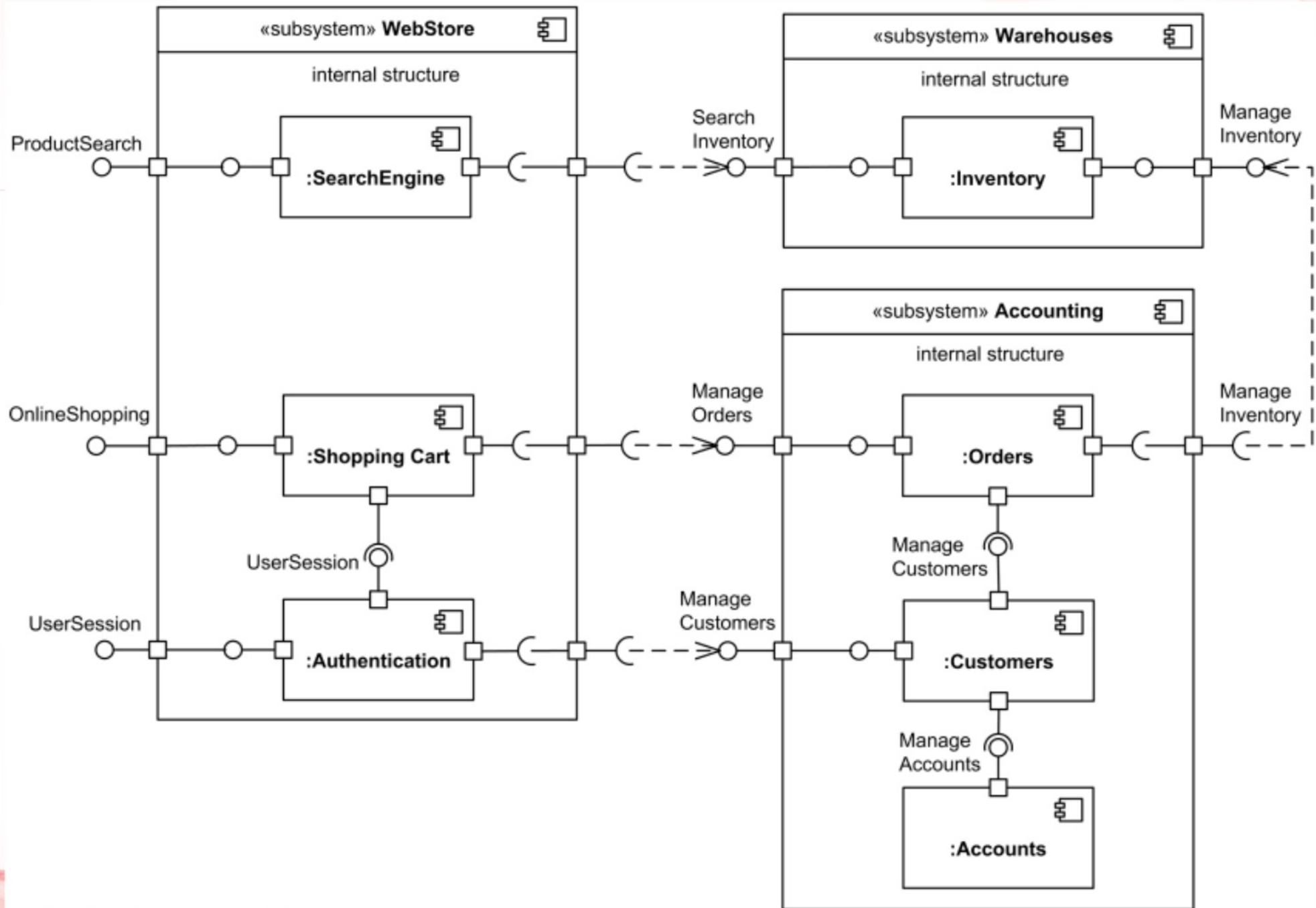
SVITLANA  
MARYAM



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# COMPONENT DIAGRAM



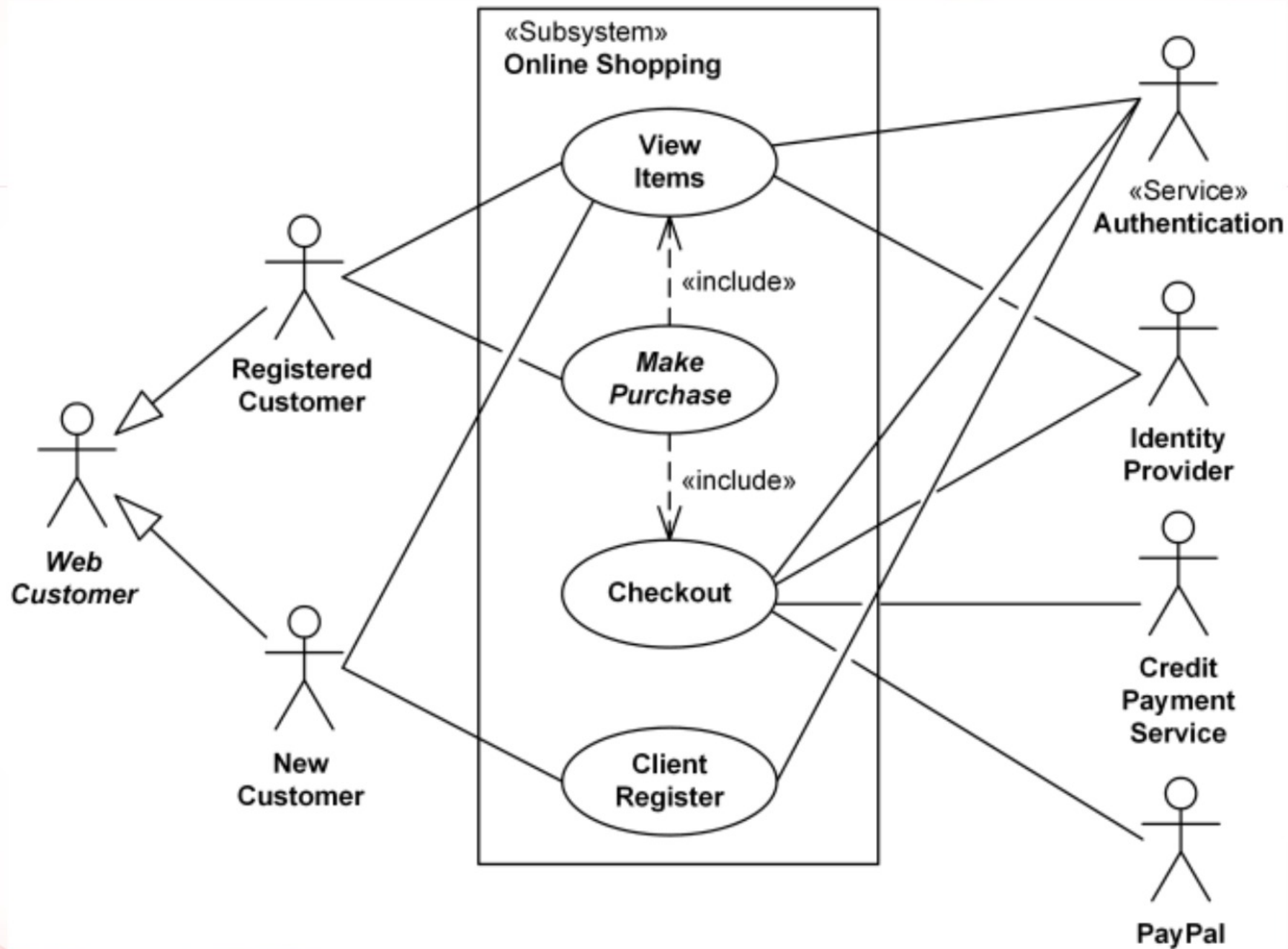




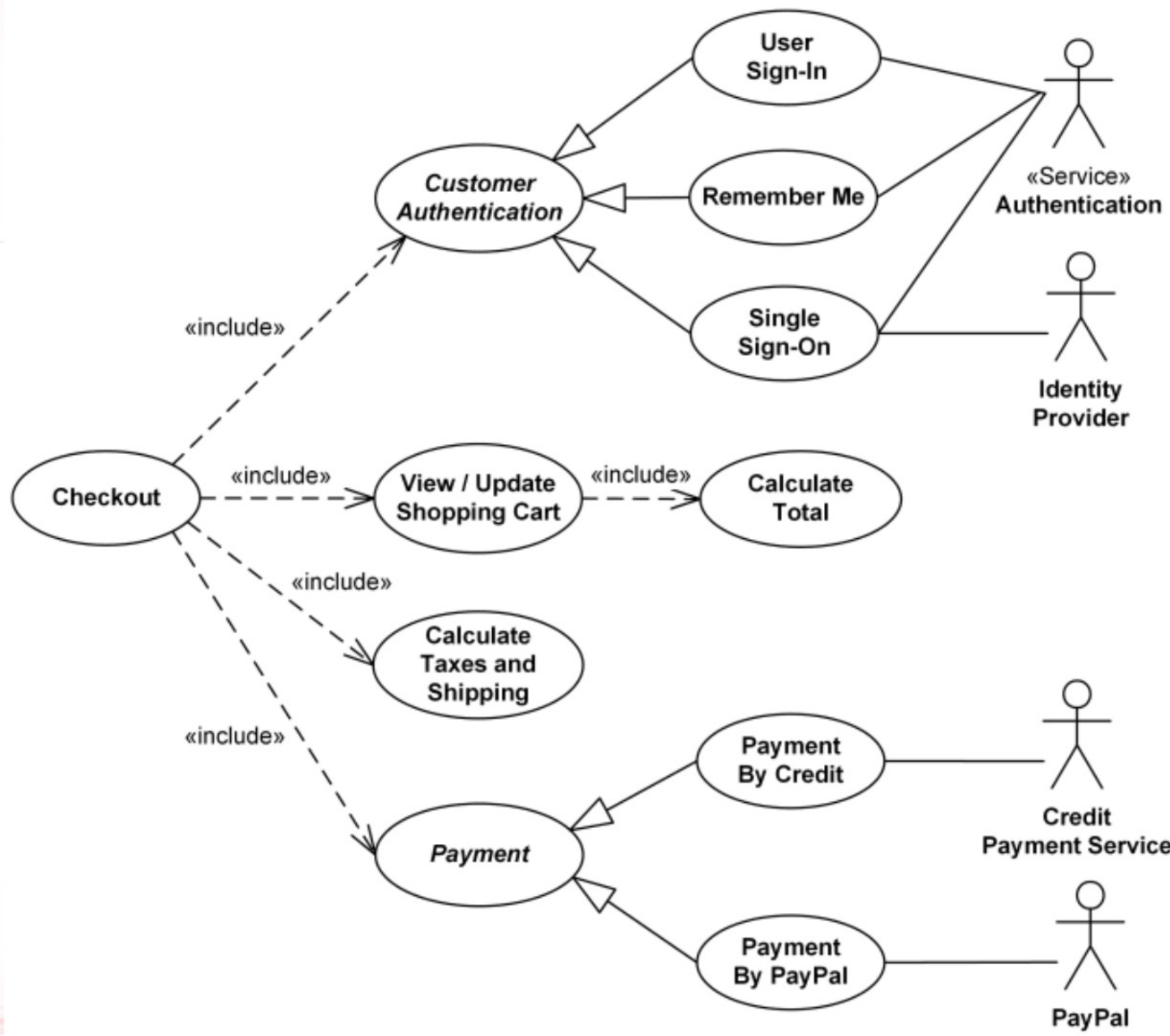
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# USE CASE DIAGRAM













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# SEQUENCE DIAGRAM

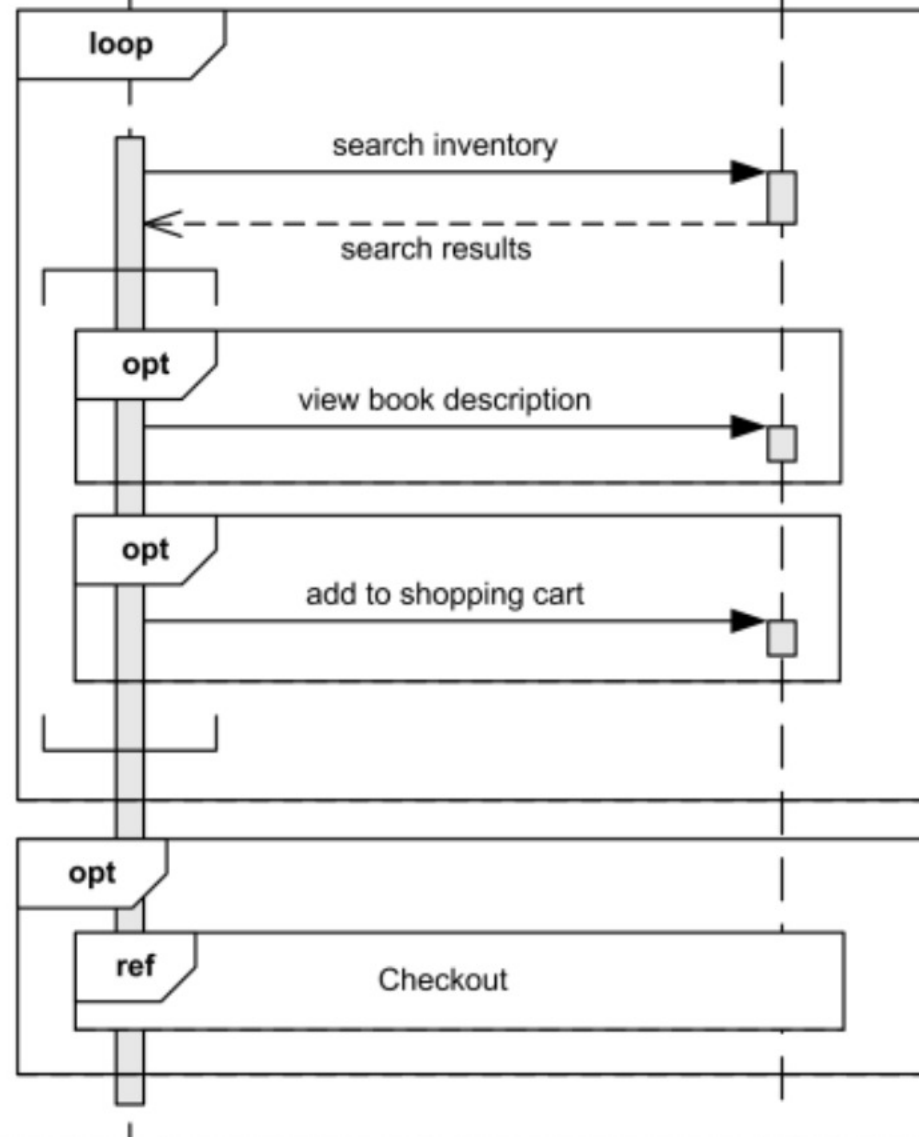




**:Web Customer**



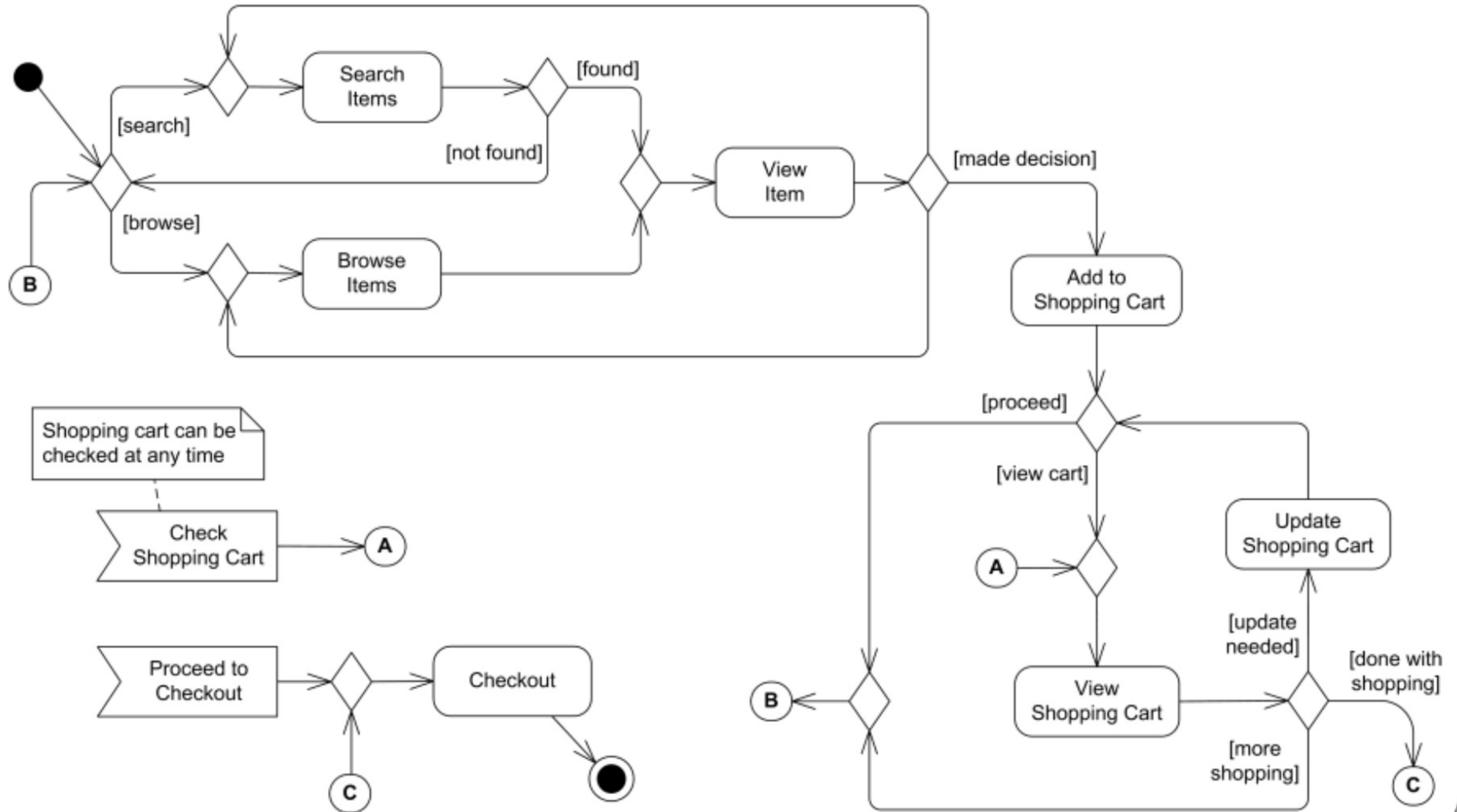
**:Online Bookshop**





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# ACTIVITY DIAGRAM





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# DATA MODEL

### Customer

<b>id</b>	<b>int</b>
first_name	varchar
middle_name	varchar
last_name	varchar
email_address	varchar
created_at	datetime

PasswordHistory	
id	int
customer_id	int
password_hash	varchar
retired_at	datetime

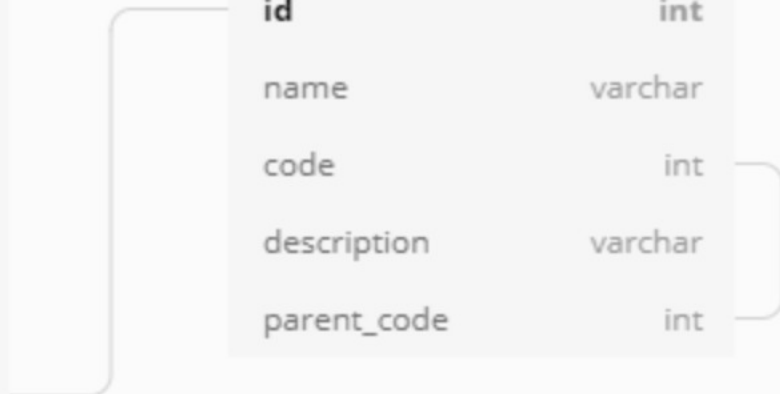
Customer	
id	int
first_name	varchar
middle_name	varchar
last_name	varchar
email_address	varchar
created_at	datetime

CustomerLogin	
id	int
customer_id	int
password_hash	varchar
locked_out	bool

LoginAttemptHistory	
id	int
customer_id	int
login_successful	bool
attempted_at	datetime

Product	
id	int
name	varchar
sku	varchar
description	varchar
price	float
category_id	int

ProductCategory	
id	int
name	varchar
code	int
description	varchar
parent_code	int





RelatedProduct	
<b>id</b>	int
product_id	int
related_product_id	int
relevance_score	int

Product	
<b>id</b>	int
name	varchar
sku	varchar
description	varchar
price	float
vendor_id	int
category_id	int

PricingHistory	
<b>id</b>	int
product_id	int
price	float
started_at	datetime
ended_at	datetime

ProductVendor	
<b>id</b>	int
company_code	varchar
name	varchar
description	varchar
address_street_no	varchar
address_street_alt	varchar
address_city	varchar
address_state	varchar
address_postal_code	varchar
address_country_code	varchar

ProductCategory	
<b>id</b>	int
name	varchar
code	int
description	varchar
parent_code	int

