Online shopping

A) Problem StatementThis projects aims to develop an online shopping for customers with the goal so that it is very easy to shop your loved things from a extensive number of online shopping sites available on the web. With the help of this you can carry out an online shopping from your home. Here is no compelling reason to go to the crowed stores or shopping centers during festival seasons. You simpy require a PC or a laptop and one important payment sending option to shop online.To get to this online shopping system all the customers will need to have a email and password to login and proceed your shopping . The login credentials for an online shopping system are under high security and nobody will have the capacity to crack it easily. Upon successful login the customers can purchase a wide range of things such as mobiles, books, apparel, jewellery, infant care, gifts, tools, etc. can be dispatched using online shopping system. Not justthese, you can also purchase from outside nations by few clicks on your mouse. And of course you will get your requested ordered items at your door step. It is simple. You will pick your favourite items from variety of online shopping sites looking at cost and quality. No need to go physical shops with this you will have more time to spend with your family.It Just need a computer and a payment making options like net banking, credit card, debit card or paypal.Almost a wide range of things can be brought through online shopping system.You can purchase goods from foreign places from your bedroom and you will get your goods at your home.It is extremely secure. Customer service is accessible

3. Specific Requirements: 3.1 Functional Requirements:

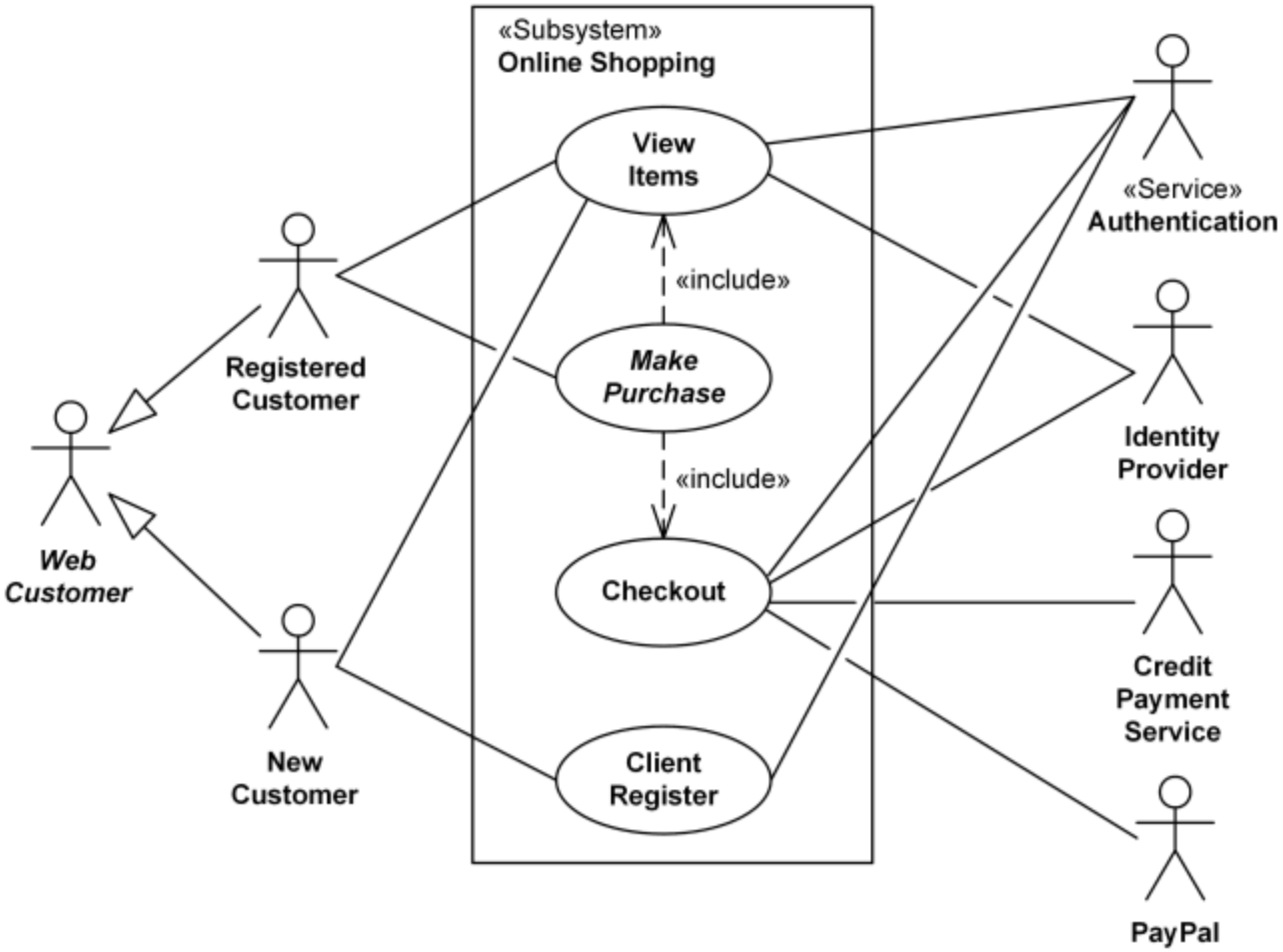
This section provides requirement overview of the system. Various functional modules that can be implemented by the system will be - 3.1 Description: 3.1.1 Registration If customer wants to buy the product then he/she must be registered, unregistered user can't go to the shopping cart. 3.1.2 Login Customer logins to the system by entering valid user id and password for the shopping. 3.1.3 Changes to Cart Changes to cart means the customer after login or registration can make order or cancel order of the product from the shopping cart. 3.1.4 Payment In this system we are dealing the mode of payment by Cash.We will extend this to credit card,debit card etc in the future. 3.1.5 Logout After ordering or surfing for the product customer has to logout. 3.1.6 Report Generation After ordering for the product,the system will sent one copy of the bill to the customer's Email-address and another one for the system data base. 3.2 Non-Functional Requirements: Following Non-Functional Requirements will be there in the insurance to the internet: (i) Secure access to consumer's confidential data. (ii) 24X7 availability. (iii) Better component design to get better performance at peak time. (iv) Flexible service based architecture will be highly desirable for future extension.Non-Functional Requirements define system properties and constraints. Various other Non-Functional Requirements are: ¬ Security ¬ Reliability ¬ Maintainability ¬ Portability ¬

Extensibility ¬ Reusability ¬ Compatibility ¬ Resource Utilization 3.3 Performance Requirements: In order to maintain an acceptable speed at maximum number of uploads allowed from a particular customer as any number of users can access to the system at any time. Also the connections to the servers will be based on the attributes of the user like his location and server will be working 24X7 times. 3.4 T e c h ni c al I s s ues: This system will work on client-server architecture. It will require an internet server and which will be able to run PHP application. The system should support some commonly used browser such as IE, mozzila firefox,chrome etc.

Online Shopping

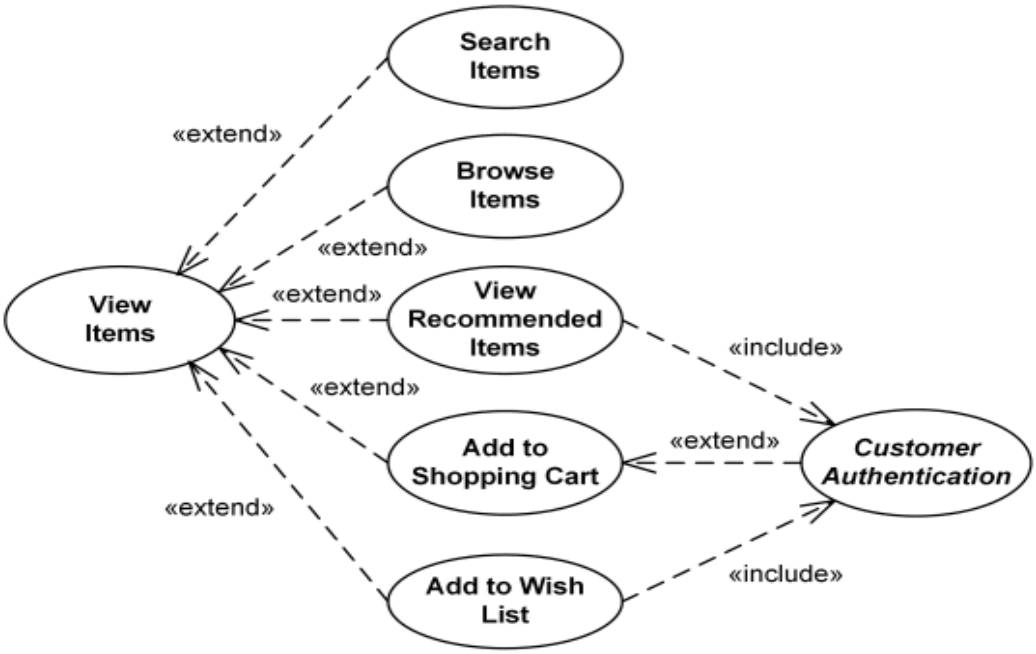
UML Use Case Diagram Example

Web Customer **actor** uses some web site to make purchases online. Top level **use cases** are **View Items**, **Make Purchase** and **Client Register**. View Items use case could be used by customer as top level use case if customer only wants to find and see some products. This use case could also be used as a part of Make Purchase use case. Client Register use case allows customer to register on the web site, for example to get some coupons or be invited to private sales. Note, that **Checkout** use case is **included use case** not available by itself - checkout is part of making purchase.
Except for the **Web Customer** actor there are several other actors which will be described below with detailed use cases.



Online shopping UML use case diagram example - top level use cases.
View Items use case is **extended** by several optional use cases - customer may search for items, browse catalog, view items recommended for him/her, add items to shopping cart or wish list. All these use cases are extending use cases because they provide some optional functions allowing customer to find item.

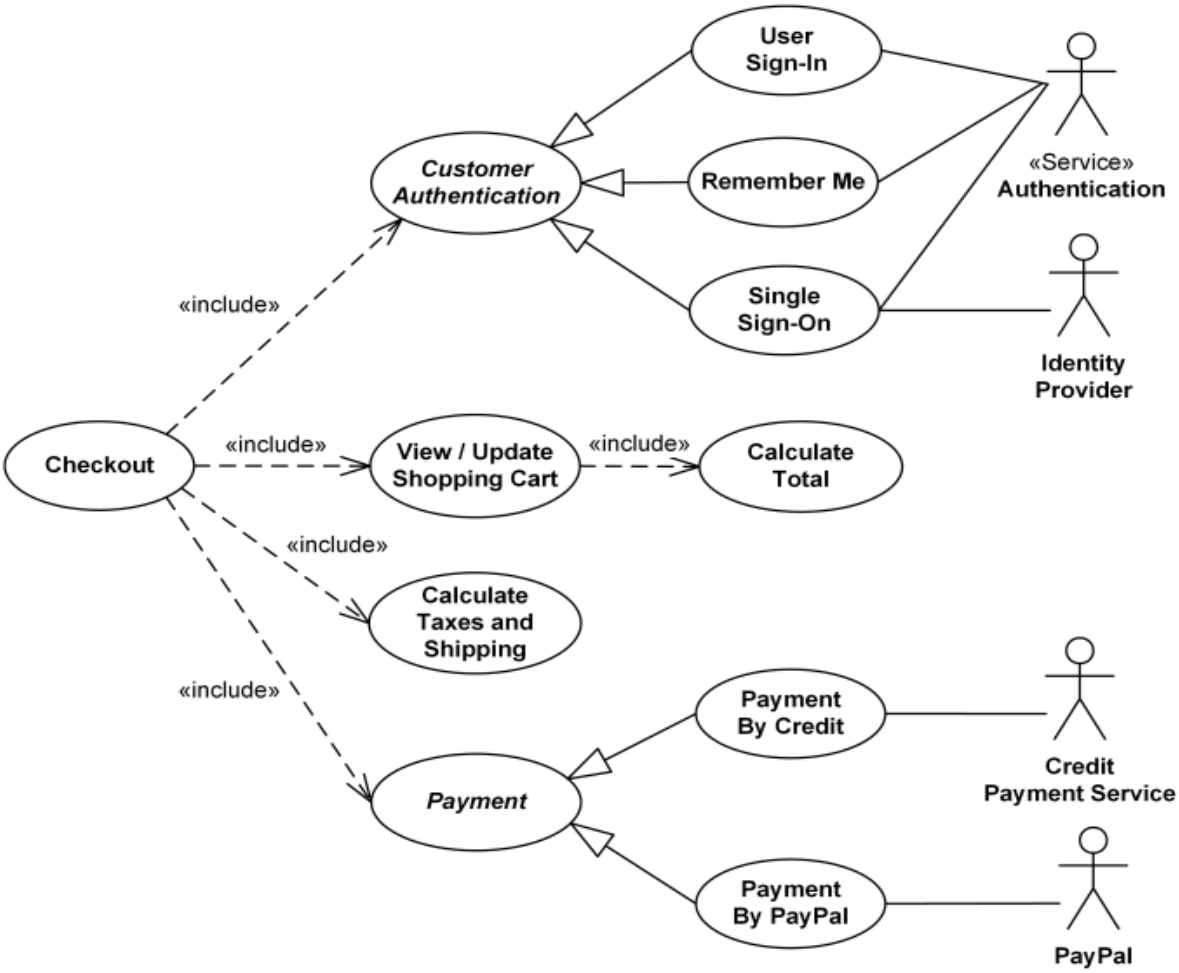
Customer Authentication use case is **included** in **View Recommended Items** and **Add to Wish List** because both require the customer to be authenticated. At the same time, item could be added to the shopping cart without user authentication.



Online shopping UML use case diagram example - view items use case.

Checkout use case includes several required uses cases. Web customer should be authenticated. It could be done through user login page, user authentication cookie ("Remember me") or Single Sign-On (SSO). Web site authentication service is used in all these use cases, while SSO also requires participation of external identity provider.

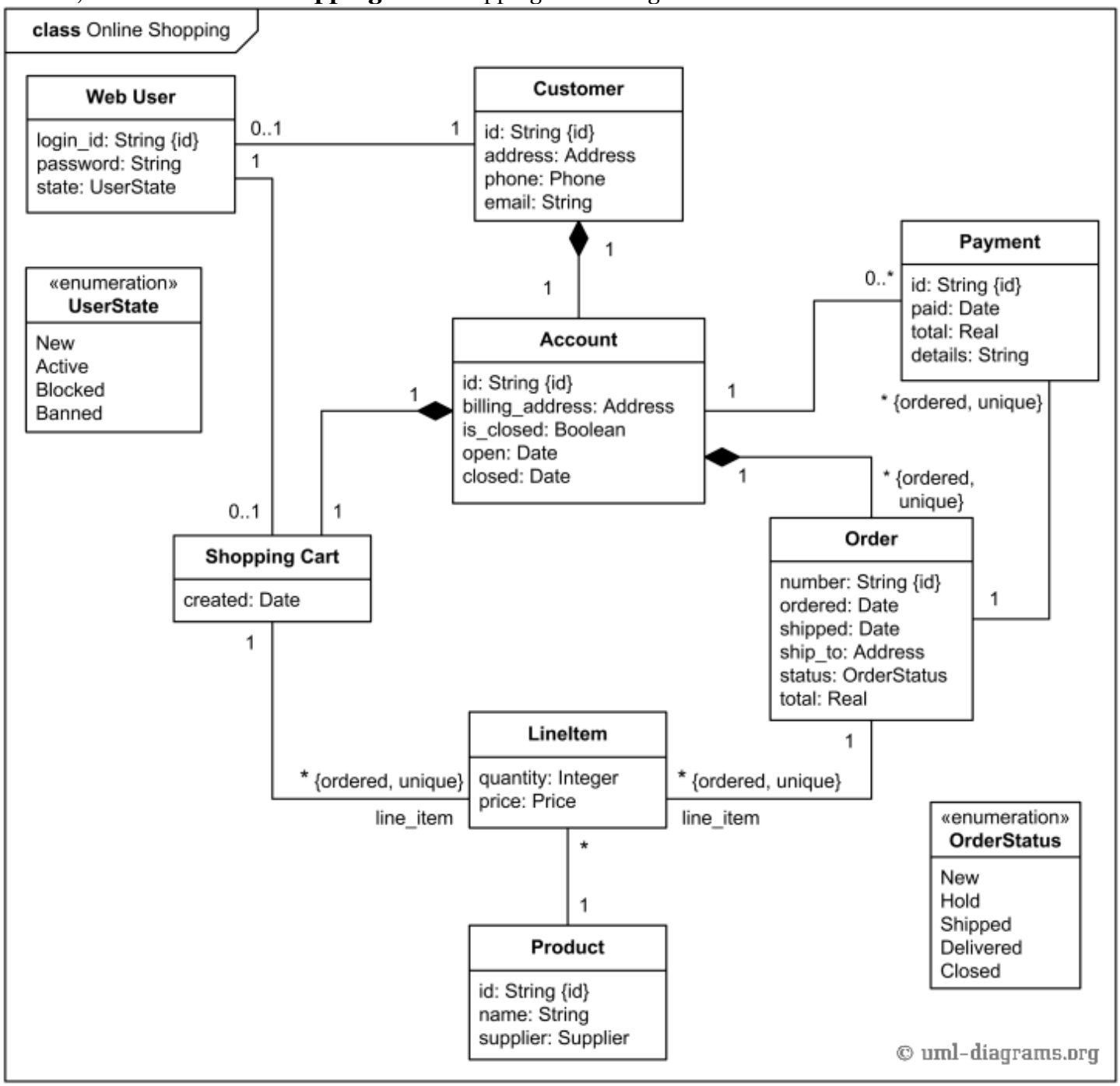
Checkout use case also includes **Payment** use case which could be done either by using credit card and external credit payment service or with PayPal.



Online shopping UML use case diagram example - checkout, authentication and payment use cases.

UML Class Diagram Example

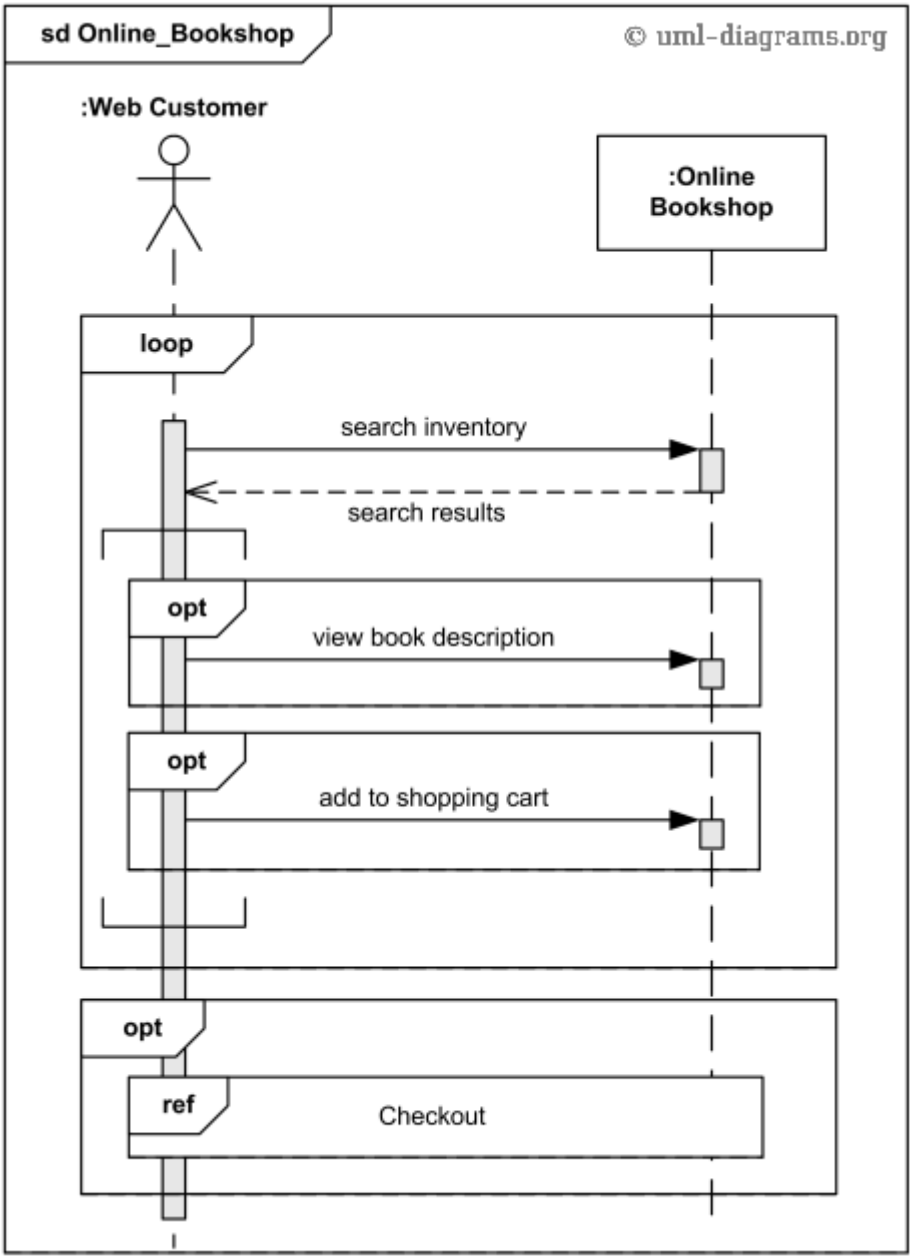
Here we provide an example of UML **class diagram** which shows a domain model for online shopping. The purpose of the diagram is to introduce some common terms, "dictionary" for online shopping - Customer, Web User, Account, Shopping Cart, Product, Order, Payment, etc. and relationships between. It could be used as a common ground between business analysts and software developers.
Each customer has unique id and is linked to exactly one **account**. Account owns shopping cart and orders. Customer could register as a web user to be able to buy items online. Customer is not required to be a web user because purchases could also be made by phone or by ordering from catalogues. Web user has login name which also serves as unique id. Web user could be in several states - new, active, temporary blocked, or banned, and be linked to a **shopping cart**. Shopping cart belongs to account.



Online shopping domain UML class diagram example.
Account owns customer orders. Customer may have no orders. Customer orders are sorted and unique. Each order could refer to several **payments**, possibly none. Every payment has unique id and is related to exactly one account.
Each order has current order status. Both order and shopping cart have **line items** linked to a specific product. Each line item is related to exactly one product. A product could be associated to many line items or no item at all.

UML Sequence Diagram Example

An example of high level **sequence diagram** for **online bookshop**. Online customer can search book catalog, view description of a selected book, add book to shopping cart, do checkout.

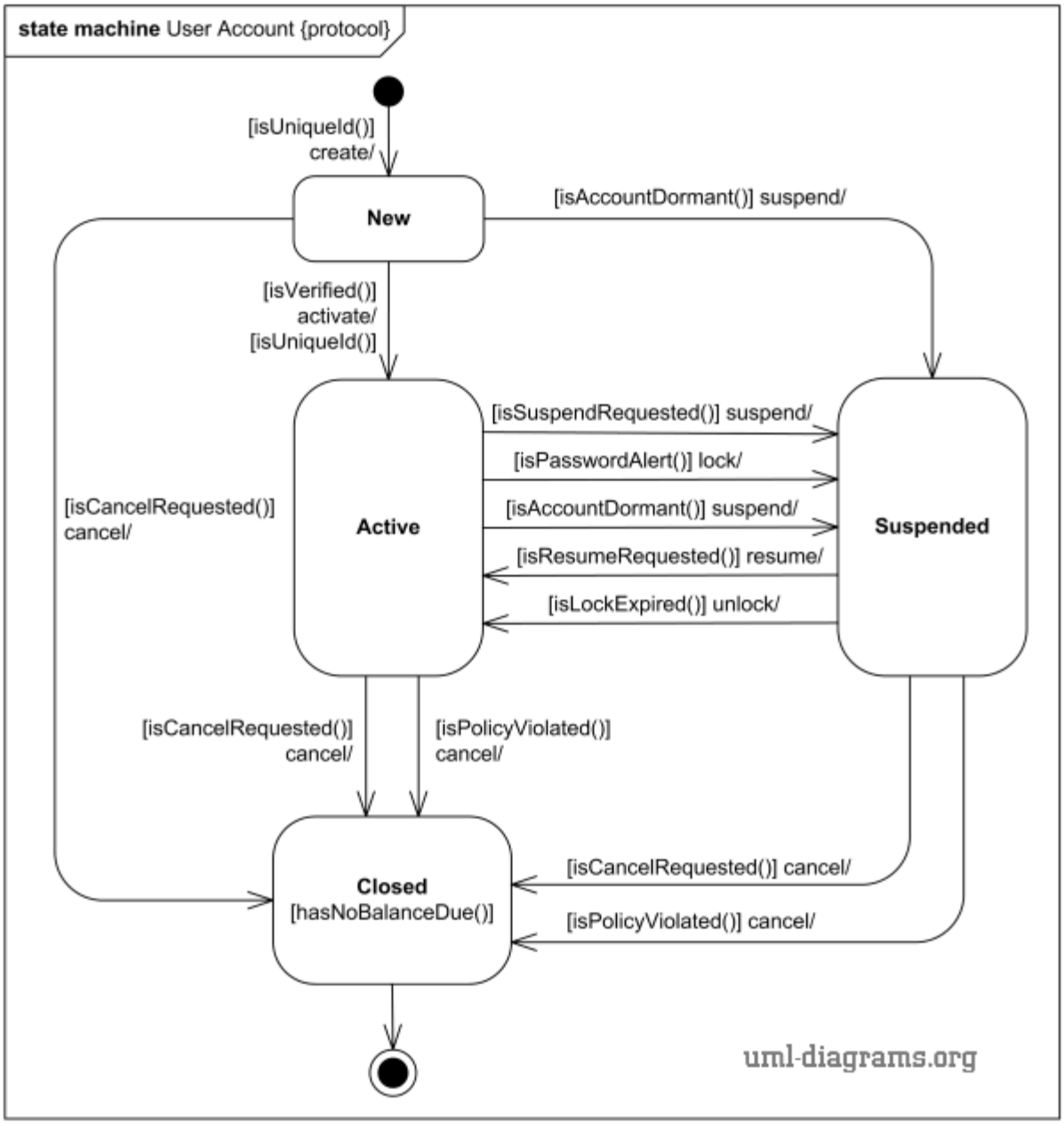


An example of UML sequence diagram for online bookshop.

Online Shopping - User Account

UML State Machine Diagram Example

Every company having customers maintains customer accounts and supports a complete life cycle of the account from its creation until it is closed. There are differences in what are the stages (states) in the account's life cycle, and what are conditions or events causing account to change its state.
Here we provide an example of user account life cycle in the context of online shopping, shown as UML **protocol state machine** diagram.
For the user account to be created, it has to meet some initial requirements. For example, user id (used as a login name) must be unique, at least for the existing accounts. After account was created, it might need to be verified. Verification depends on the company and could include e-mail, phone, and/or address verification. If account was not verified during some predefined period of time, that account could be moved to the suspended accounts.



Online shopping user account protocol state machine diagram.

New, active, or suspended accounts could be cancelled at any time by client's request. Note, the precondition for this usually includes payment of any outstanding balances, and might require some separate account state or substate to handle this case.
User account might be suspended for security reasons, manually or automatically. For example, website intrusion detection system locks user account for predefined period of time, if there were several unsuccessful

login attempts using incorrect account password. After account lock times out, account is activated back automatically.
Some user accounts could be inactive for a long period of time. Company policy or business rules could require moving such dormant for a year or two accounts to the suspended state.
Once we listed user account states and specified all possible transitions from one state to another, we can review the diagram with other subject matter experts to see if anything is missing or needs further clarifications.

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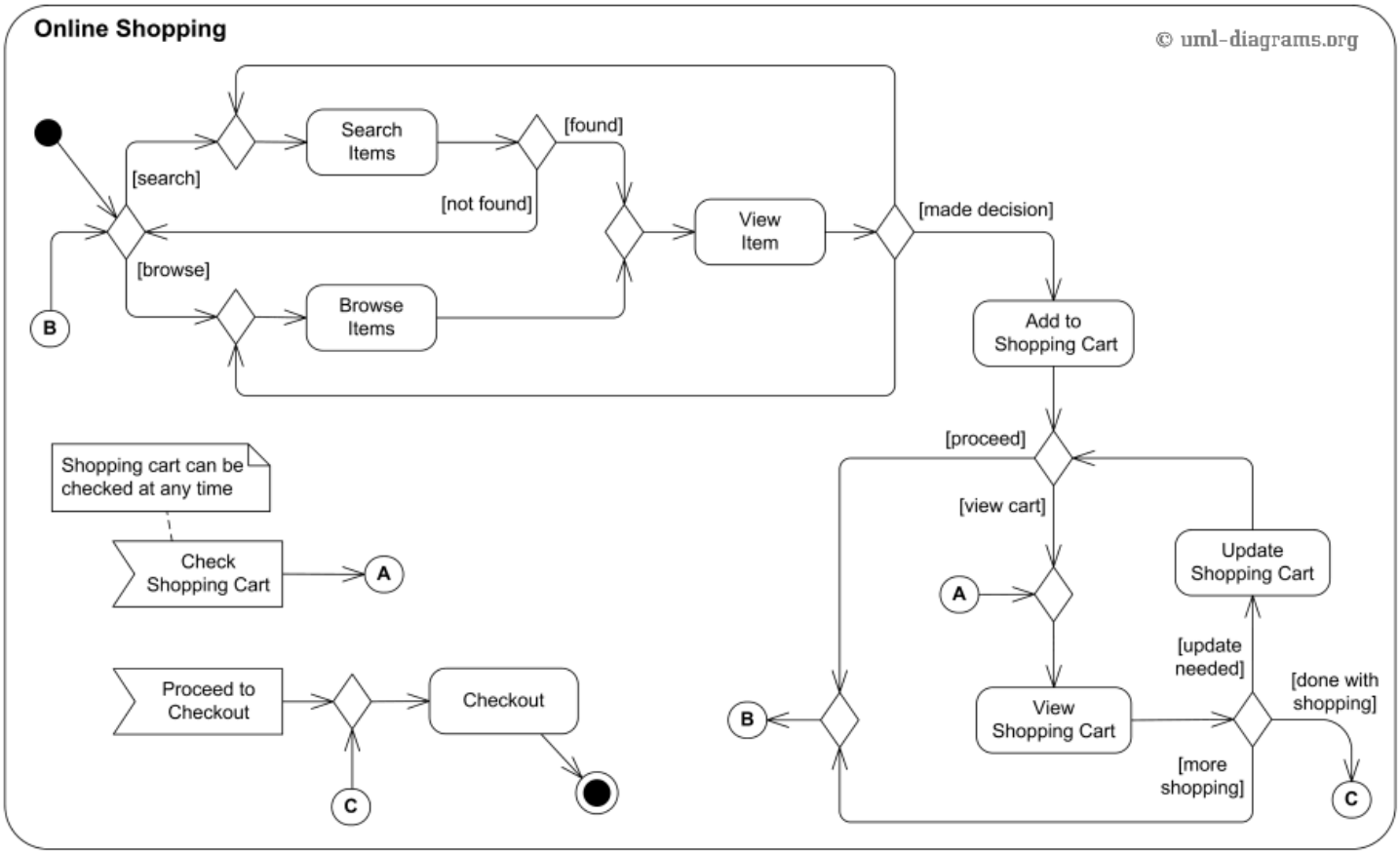
UML Activity Diagram Example

An example of **activity diagram** for **online shopping**. Online customer can browse or search items, view specific item, add it to shopping cart, view and update shopping cart, checkout. User can view shopping cart at any time. Checkout is assumed to include user registration and login.
This example does not use partitions, most of the actions are assumed to be fulfilled by online customer.



An example of UML activity diagram for online shopping.