

Online shopping system

PROJECT REPORT

Submitted by

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BONAFIDE

This is to certify that **18CSC202J - OBJECT ORIENTED DESIGN AND PROGRAMMING LABORATORY project report** titled “**ONLINE SHOPPING SYSTEM**” is the Bonafide work of **PAVULURI LOLA YASWANTHI(Reg.No:RA2111030010256)** who undertook the task of completing the project within the allotted time.

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ABSTRACT

Online shopping system is a system which is developed to improve the services of customers and vendors. The main features of this project are high accuracy, design flexibility and easy availability. This application allows customers to shop and buy the items online. This online shopping system allows users to shop from anywhere and anytime. This system provides users to find more variety of products with fewer expenses. Users can compare multiple items at a time in this application. This application saves lot of time and users can avoid crowd for shopping. This Online Shopping System application maintains the details of the customer payments, product receipts and all the details of the selected items.

EXISTING SYSTEM:

In the existing system users should visit the shop manually and from the available product choose the item customer want and buying the item by payment of the price of the item. It is less user-friendly. User must go to shop and select products. It is difficult to identify the required product. Description of the product is limited. It is a time-consuming process. this application is not in reach of distant users.

PROPOSED SYSTEM:

In the proposed Online Shopping Cart System customer need not go to the shop for buying the products. He/she can order the product he/she wish to buy through the application in his/her Smartphone. The shop owner will be admin of the system. Shop owner can appoint moderators who will help owner in managing the customers and product orders. The system also recommends a home delivery system for the purchased products.

MODULES:

Users: User should fill the registration by submitting all the details like email and address. Users can make search for the product and add the item to cart. User can place order by completing the payment process.

Guest customers: Guest customers can view all the products and search for a particular item if he wants to purchase the item, he should get register to the application.

Admin: Admin can view all the transaction made by the users. Admin will add new products to the site. All the data regarding customers and the transaction will be saved by admin.

LIST OF UML DIAGRAMS FOR ONLINE SHOPPING SYSTEM:

- Use Case diagram
- Class diagram
- Sequence diagram
- Collaboration diagram/Communication diagram
- State Chart diagram
- Activity diagram
- Package diagram
- Component diagram
- Deployment diagram

Use case diagram with explanation

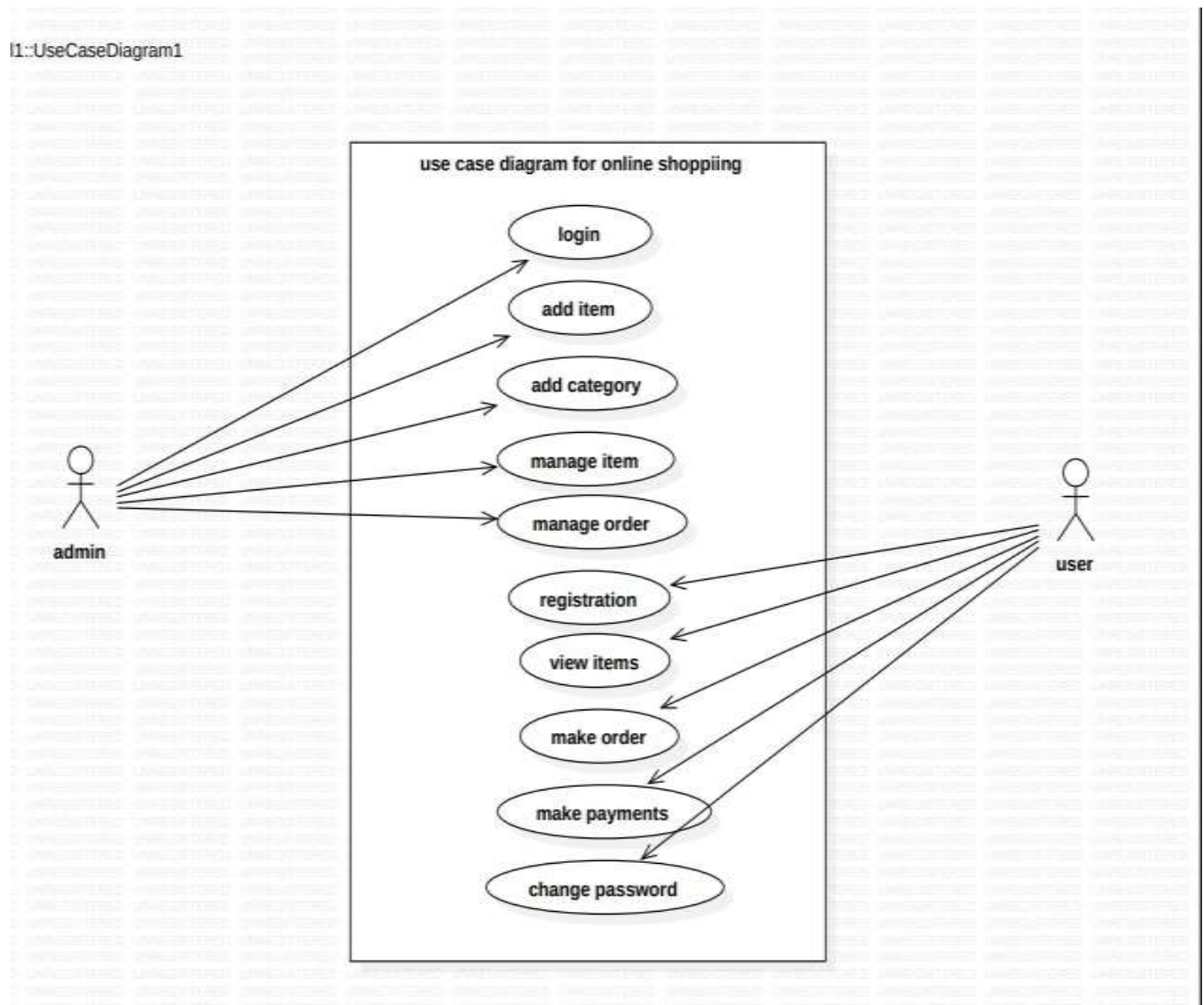


Figure-1: Use case diagram

Description:

Use case diagram is a combination of actors and their functionality represented by graphical components. Here the various actors involved are customer, admin, server, data base.

The online shopping has the following use-cases

1. search the item needed
2. add to cart

3. payment

4. Check status

ACTORS INVOLVED: 1. customer 2. Admin

USE-CASE NAME: search the item needed. In this use case, a customer can search all the items available to him and choose the best course he wants. The customer can view the cost of the item, and he can choose what he wants.

USE-CASE NAME: add to cart

When a customer has successfully chosen an item, that he can add to the cart. Upon adding to cart, the customer details are stored in the database.

USE-CASE NAME: payment

After adding to cart then he starts processing the payment of the item which we have chosen

USE-CASE NAME: CHECK STATUS

The customers check the status that when will be delivered at what time and date.

Class diagram with explanation

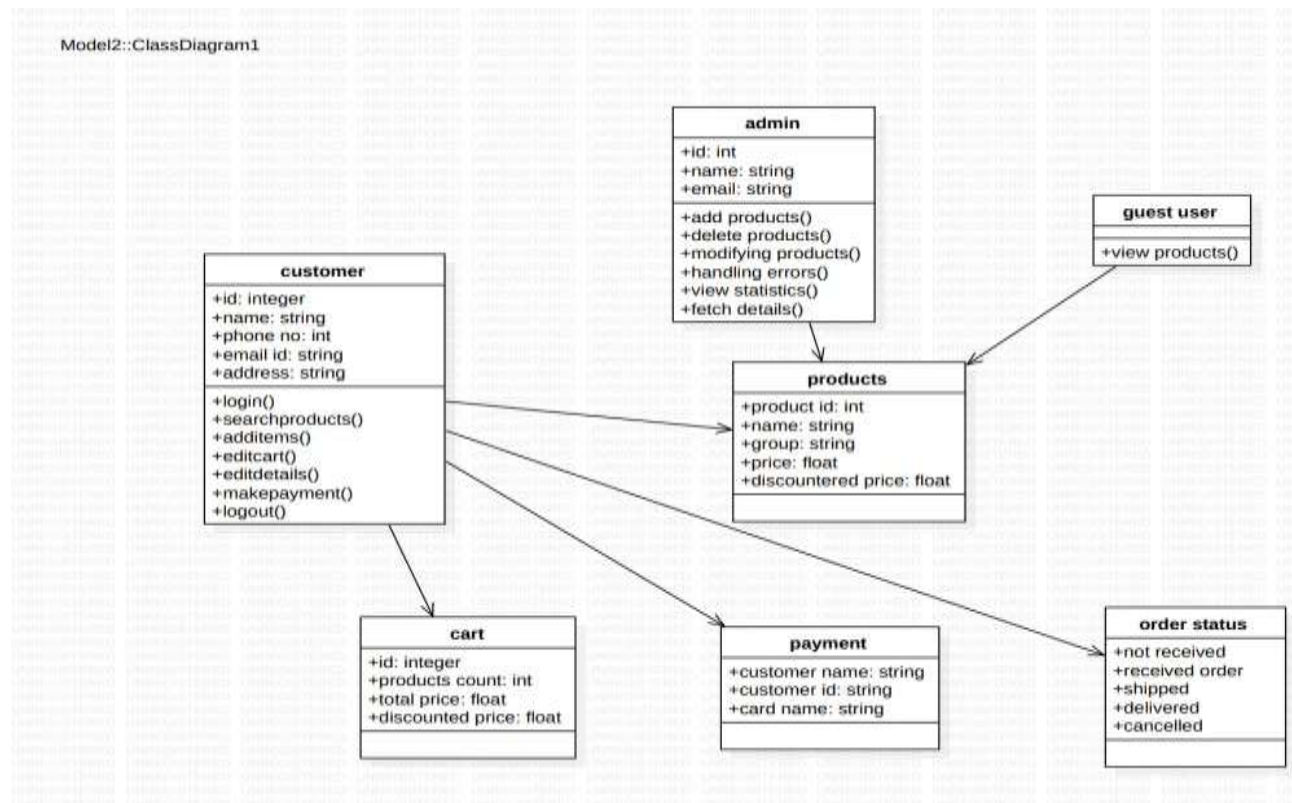


Figure-2: Class diagram

Description:

This simple class diagram for online shopping gives you the exact details about the system's class characteristics and methods. It also clarifies the connections of classes in the system. Here, I will be showing you the sample constructed class diagram provided with its attributes and methods. This is constructed with the simple idea derived from the common function of online shopping.

The illustration shows a simple idea of how the class diagram works. It resembles a flowchart in which classes are shown in boxes with three rectangles in each. The top rectangle has the class's name; the middle holds the class's properties, and the bottom contains the class's methods. The classes identified for Online Shopping System were the **products**, **customer**, **admin**, **order status**, **cart**, **guest user** and **payment**. Their roles are in the middle part and called their attributes. The function of each class is in its' methods.

Sequence diagram with explanation

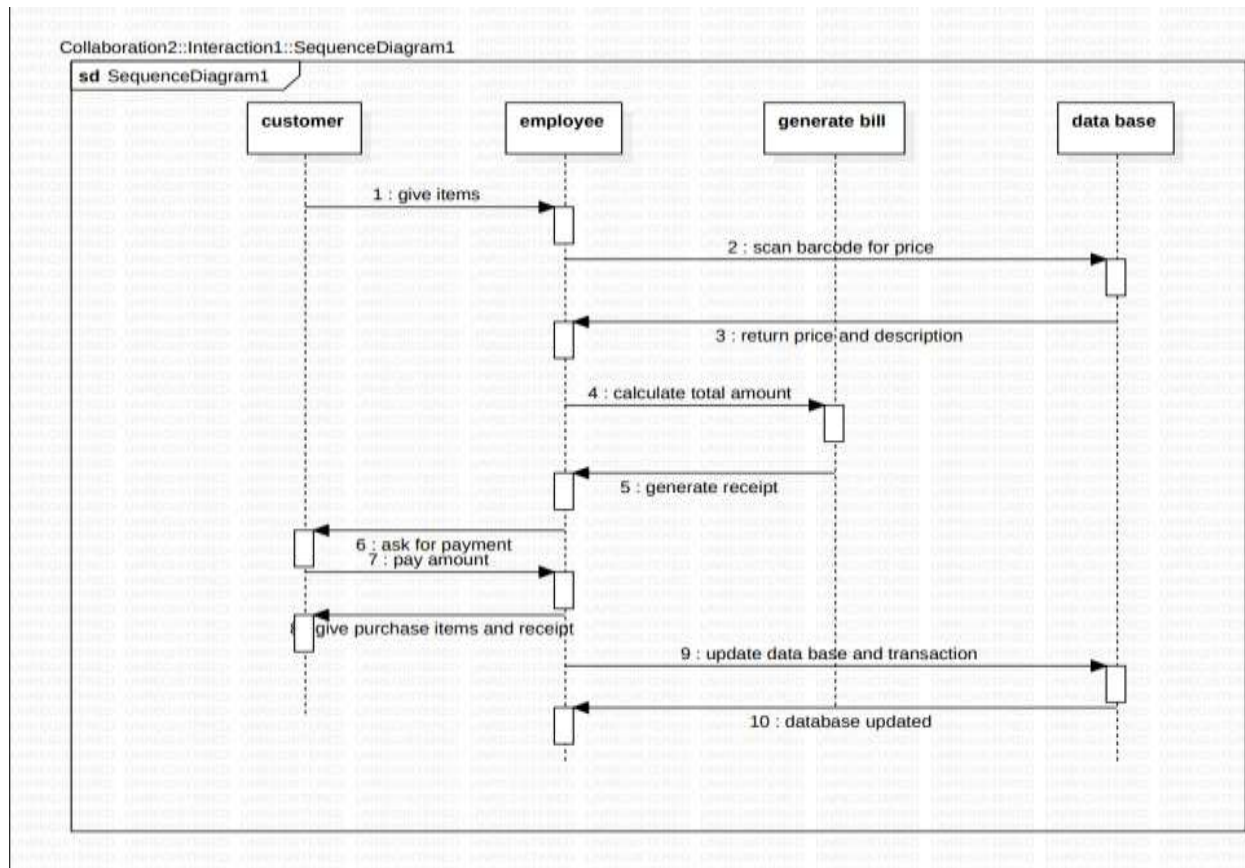


Figure-3: Sequence diagram

Description:

Sequence diagram in UML is used to illustrate the sequence of messages between objects in an interaction. This designed sequence diagram can show programmers and readers the sequence of messages between the actor and the objects. The instance of class objects involved in sequence diagram are as follows: **customer**, **employee**, **generate bill**, **database**. Here the sequence of how the system works is shown using sequence diagram

Collaboration/communication diagram with Explanation

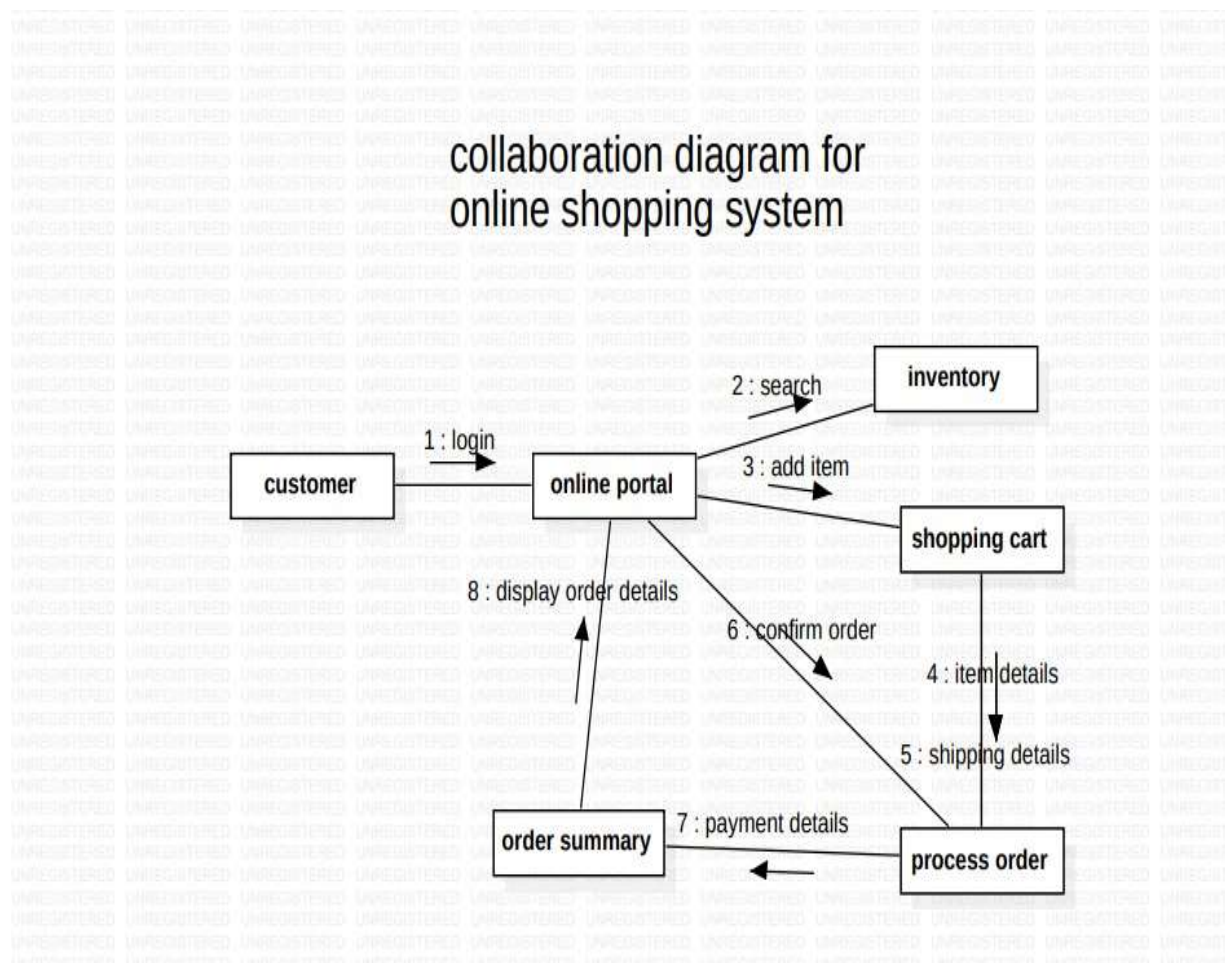


Figure-4: Collaboration/communication diagram

Description:

UML communication diagrams, like the sequence of diagrams – a kind of interaction diagram, shows how objects interact. A communication diagram is an extension of object diagram that shows the object along with the messages that travel from one to another. In order to the associations among objects, communication diagram shows the messages the objects send each other. The collaboration diagram comes from the sequence The collaboration diagram talks about online shopping. The UML is a visual language that provides a means to visualize, construct and document the artefacts of software systems After login, the customer will explore the product and their cost. The customer can view all the products available to him and select the product that suitable to him

State chart diagram with explanation

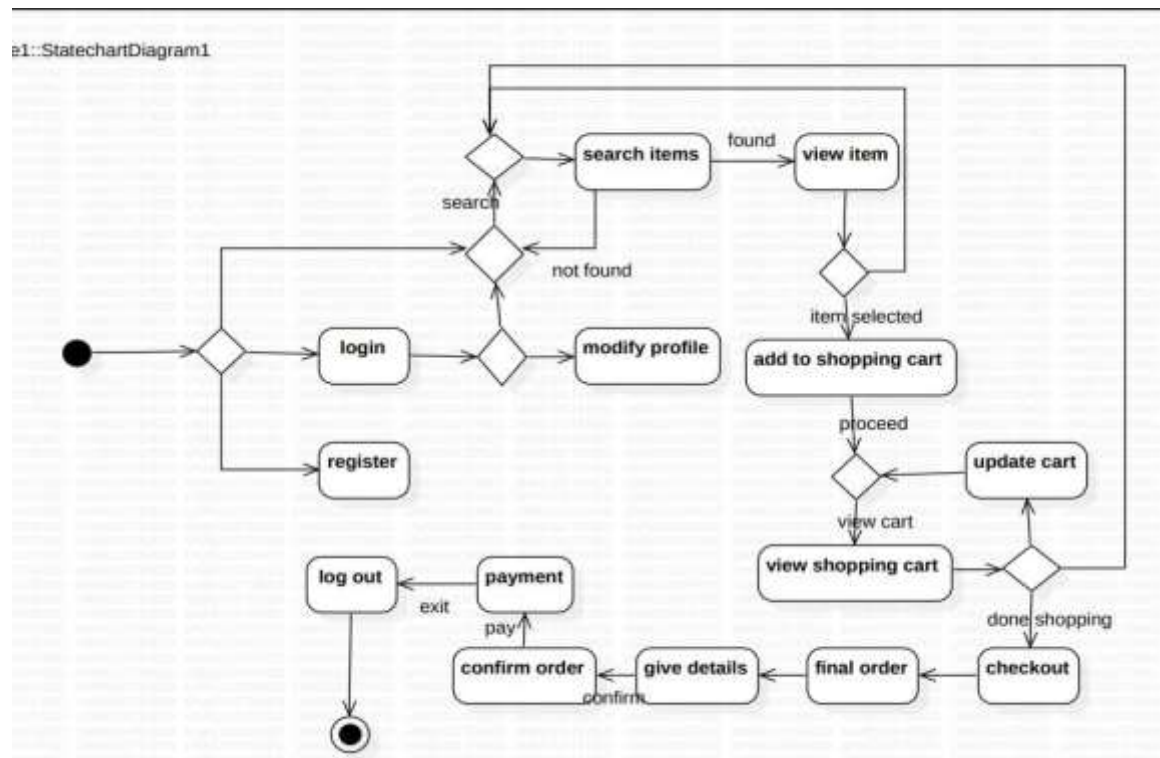


Figure-5: State chart diagram

Description:

State chart diagram is one of the five UML diagrams used to model the dynamic nature of a system. They define different states of an object during its lifetime and these states are changed by events. State chart diagrams are useful to model the reactive systems. Reactive systems can be defined as a system that responds to external or internal events. State chart diagram describes the flow of control from one state to another state. States are defined as a condition in which an object exists and it changes when some event is triggered. The most important purpose of State chart diagram is to model lifetime of an object from creation to termination. State chart diagrams are also used for forward and reverse engineering of a system. However, the main purpose is to model the reactive system.

Following are the main purposes of using State chart diagrams –

- To model the dynamic aspect of a system.
- To model the life time of a reactive system.
- To describe different states of an object during its life time.
- Define a state machine to model the states of an object.

Activity diagram with explanation

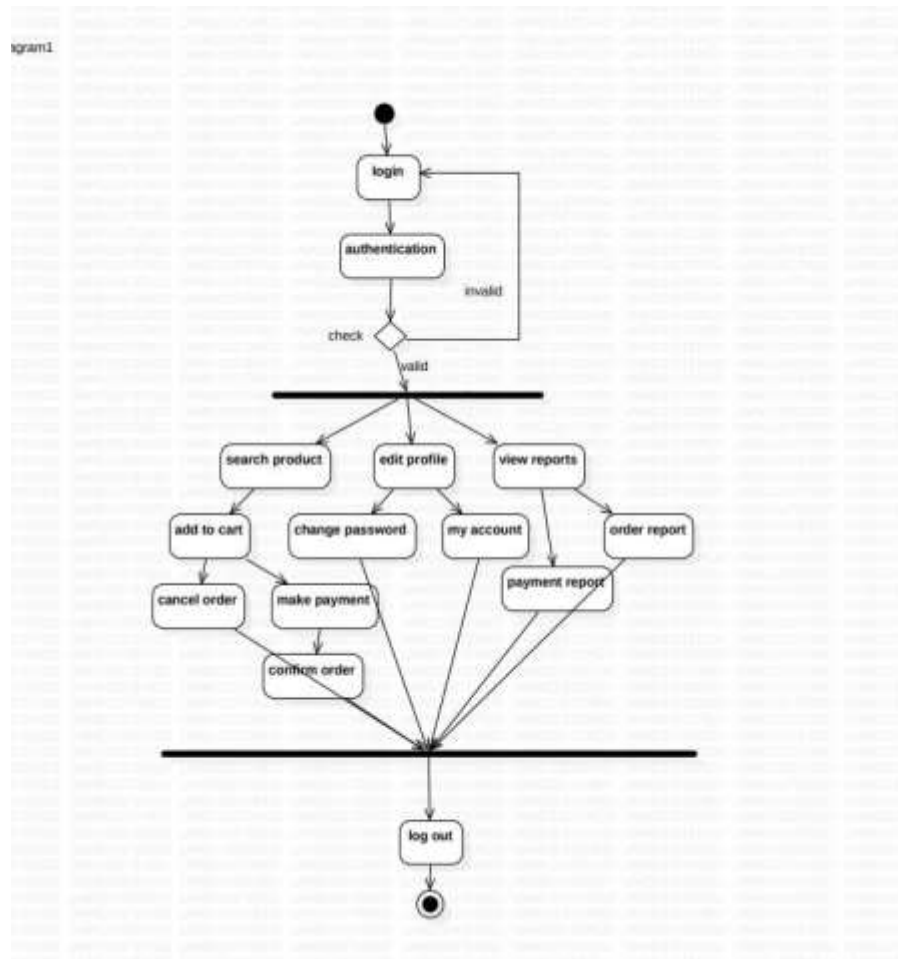


Figure-6: Activity diagram

Description:

Activity diagrams are behaviour diagrams because they describe what must happen in the system being modelled. Activity diagram is essentially an advanced version of flow chart that modelling the flow from one activity to another activity. The activity diagram used to describe flow of activity through a series of actions. Activity diagram is a important diagram to describe the system. The activity described as an action or operation of the system. Here the complete procedure of how the shopping system is shown and how all the activities in the system affect it

User Side: In User side activity diagram describe all the functionality or operation of users can do on our website.

Package diagram with explanation

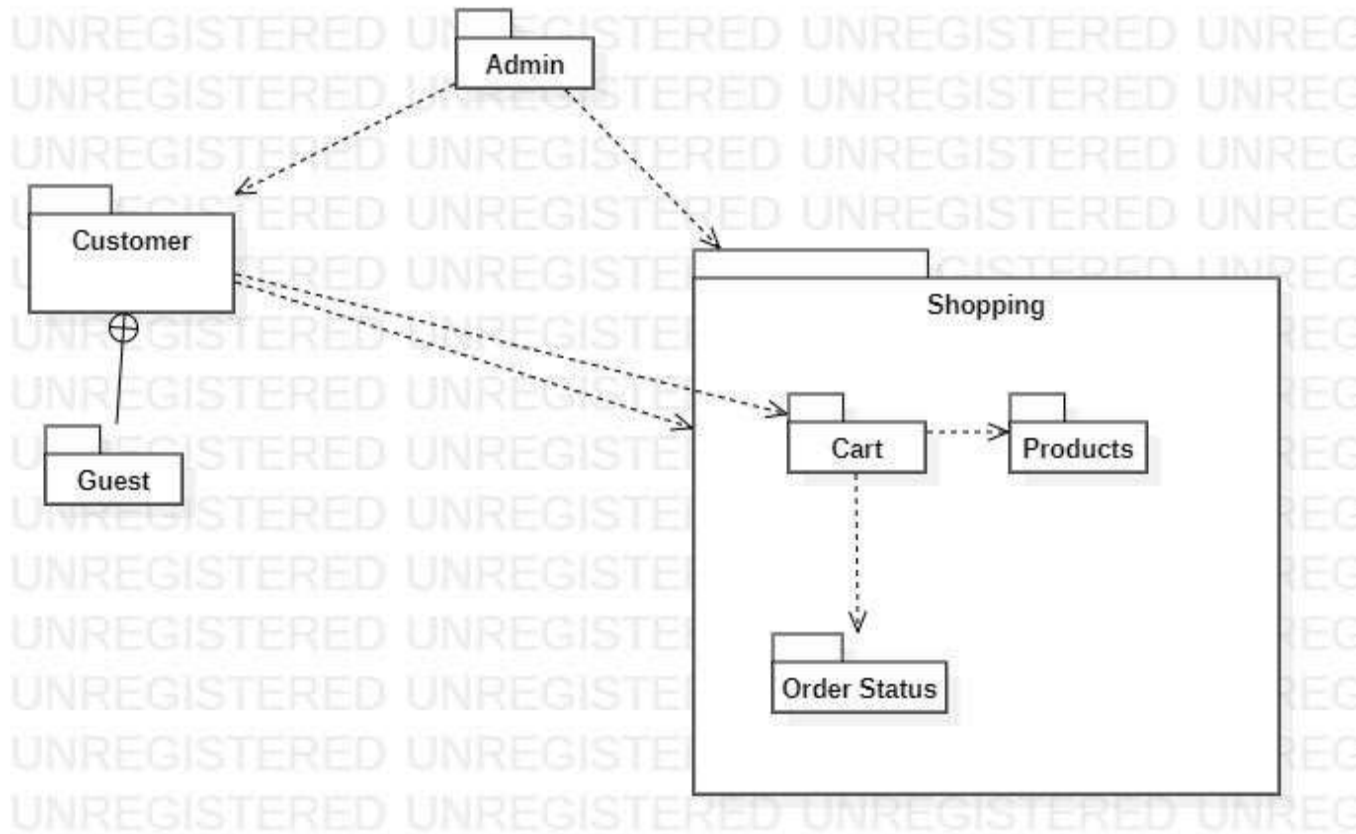


Figure-7: Package diagram

Description:

Package diagrams are structural diagrams used to show the organization and arrangement of various model elements in the form of packages. A package is a grouping of related UML elements, such as diagrams, documents, classes, or even other packages. Each element is nested within the package, which is depicted as a file folder within the diagram, then arranged hierarchically within the diagram. Package diagrams are most commonly used to provide a visual organization of the layered architecture within any UML classifier, such as a software system

Component diagram with explanation

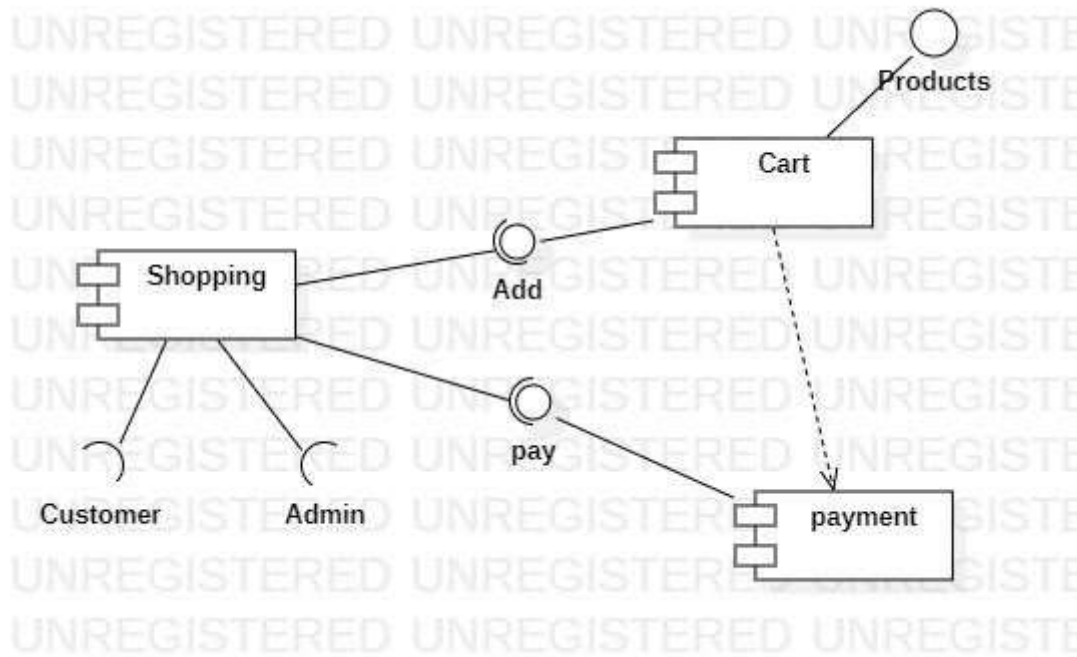


Figure-8: Component diagram

Description:

This is a component diagram of online shopping which shows components, provided and required interfaces, ports, and relationships between the shopping, cart, and payment. This type of diagrams is used in Component-Based Development (CBD) to describe systems with

Service-Oriented Architecture (SOA). Course Registration System UML component diagram, describes the organization and wiring of the physical components in a system. The diagram below shows the structural relations between components in an online shopping system. The connected component by lines represents relationships with the systems. It shows how one component connects to other components while using the system. Components of UML Component Diagram of online shopping: shopping Component - cart Component - payment Component.

Deployment diagram with explanation

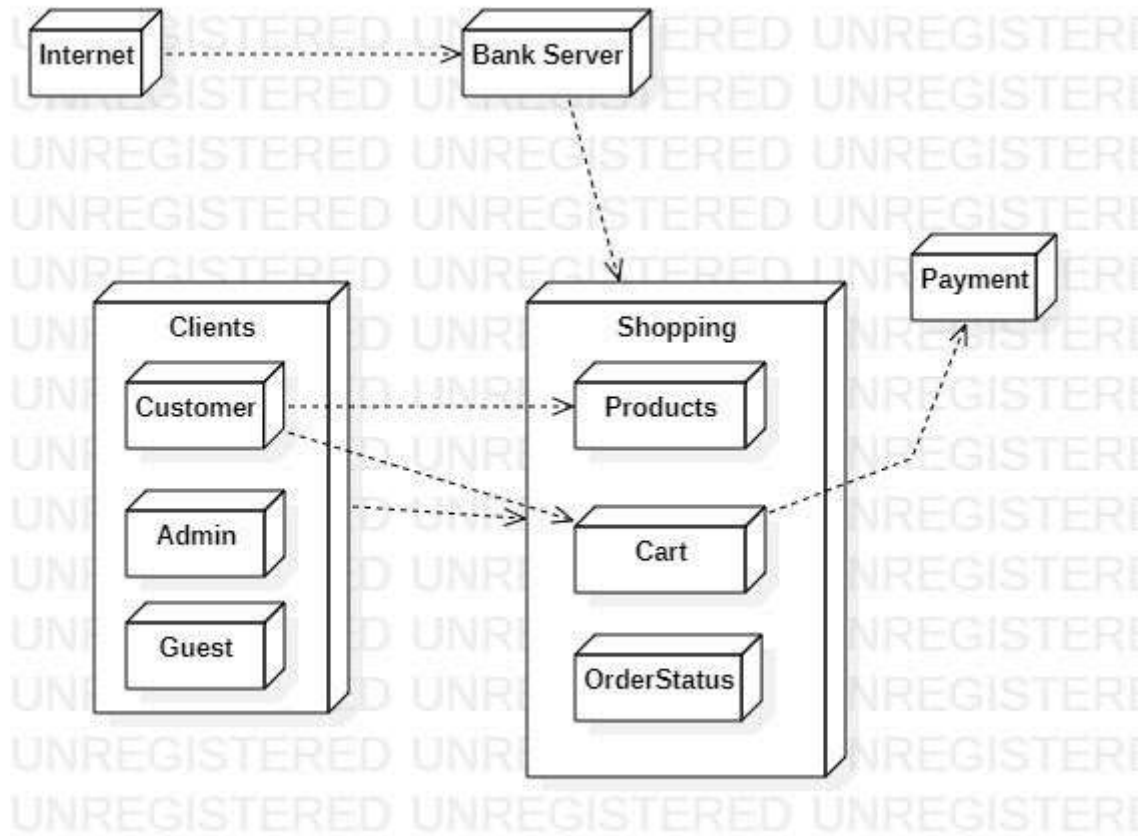


Figure-9: Deployment diagram

Description:

An UML deployment diagram is a diagram that shows the configuration of run time processing nodes and the components that live on them. Deployment diagram is a kind of structure diagram used in modelling the physical aspects of an object-oriented system. It portrays the static deployment view of a system. It involves the nodes and their relationships. Since it involves many nodes, the relationship is shown by utilizing communication paths. Both the deployment diagram and the component diagram are closely interrelated to each other as they focus on software and hardware components. Following are the purposes of deployment diagram enlisted below:

1. To envision the hardware topology of the system.
2. To represent the hardware components on which the software components are installed.
3. To describe the processing of nodes at the runtime.

Conclusion

An online shopping system that permits a customer to submit online orders for items and/or services from a store that serves both walk-in customers and online customers. The online shopping system presents an online display of an order cutoff time and an associated delivery window for items selected by the customer. The online shopping system does not settle with credit supplier of the customer until the item selected by the customer is picked from inventory but before it is delivered. This will allow customers to place order without even visiting the shop. Being able to buy any time, any place, anywhere. Sites enable them to browse before they shop, and to research the product so they have more confidence in what they are buying. Online shopping become more enjoyable and easier than real-world shopping

References

- www.google.com
- [UML Diagrams for Online Shopping System \(Complete\) | Itsourcecode.com](#)
- [Activity diagram for online shopping website \(meeraacademy.com\)](#)

