



### Practical.No.3

**Aim:-** To perform the user's view analysis :  
Use case diagram.

**Theory:-**

- Use case Diagram (UML) -

- A use case diagram is used to represent the dynamic behavior of a system. It encapsulates the system's functionality by incorporating use cases, actors, & their relationships. It model the tasks, services, & functions required by a system / subsystem of an appln.

- It depicts the high-level functionality of a system & also tells how the user handles a system.

- Purpose of UML -

- The main purpose of a use case diagram is to portray the dynamic aspect of a system. It accumulates the system's requirement, which includes both internal as well as external influences.

- It invokes persons, use cases & several things that invoke the actors & elements accountable for the implementation of use case diagrams.

- It represents how an entity from the external environment can interact with a part of the system.





following are the purposes of a use case diagram given below :

- 1) It gathers the system's needs.
- 2) It depicts the external view of the system.
- 3) It recognizes the internal as well as external factors that influence the system.
- 4) It represents the interaction betn the actors.

Following are some rules that must be followed while drawing a use case diagram :

- 1) A pertinent & meaningful name should be assigned to the actor or a use case of a system.
- 2) The comm<sup>n</sup> of an actor with a use case must be defined in an understandable way.
- 3) Specified notations to be used as & when required.
- 4) The most significant interactions should be represented among the multiple no. of interactions betn the use case & actors.

#### • Example of a Use Case Diagram

A use case diagram depicting the online shopping website is given below :

Here the Web customer actor makes use of any online shopping website to purchase online.



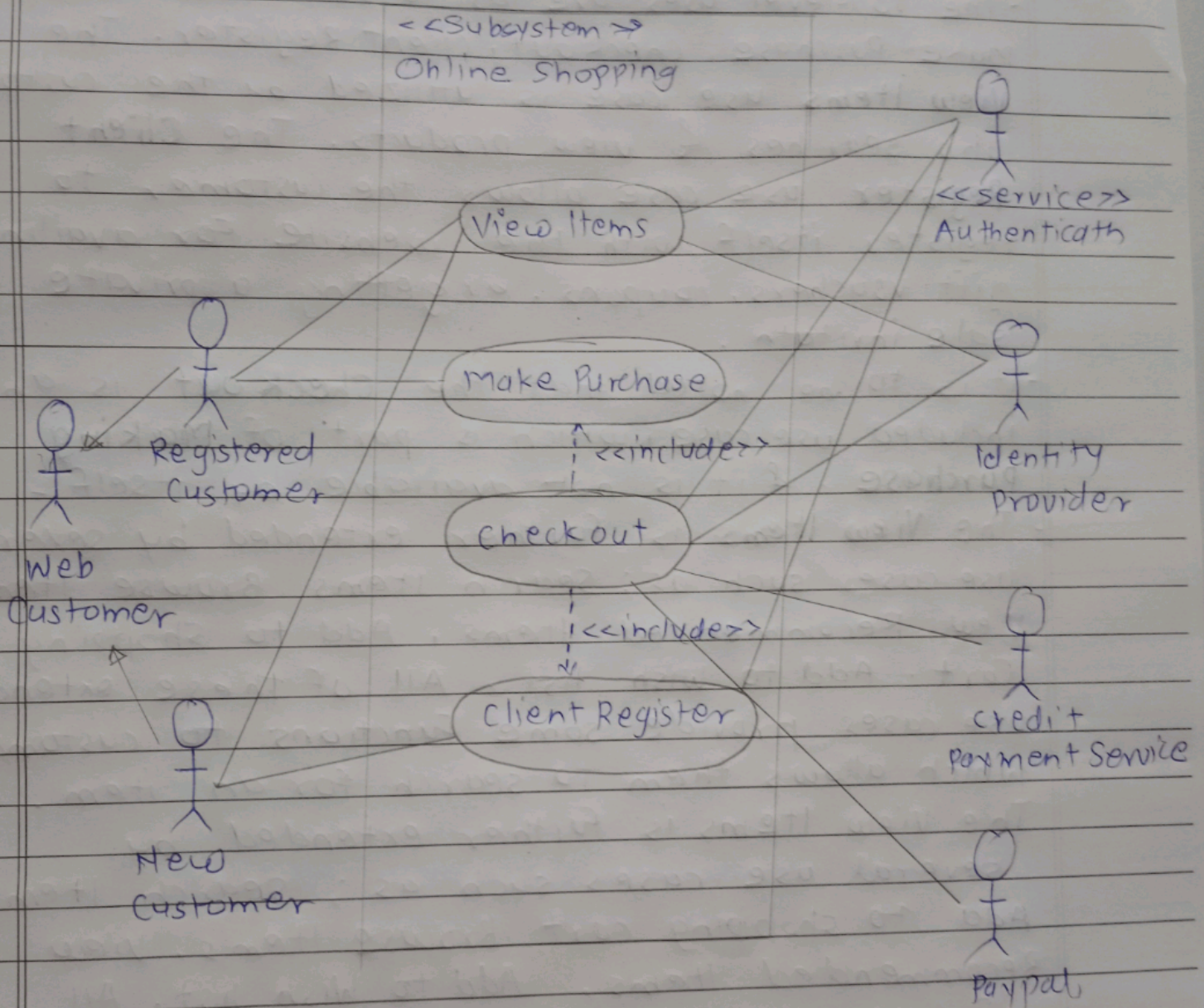


fig. Use Case Diagram for Online Shopping website.

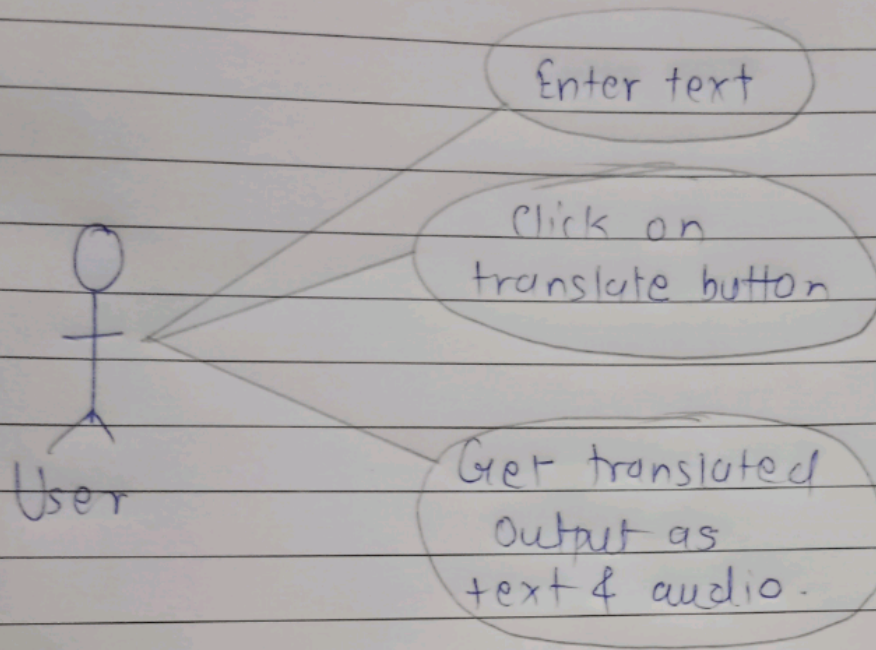




- The top-level uses are as follows : View Items, Make Purchase, checkout, client Register. The **View Items** use case is utilized by the customer who searches & view products. The **Client Register** use case allows the customer to register itself with the website for availing gift vouchers, coupons, or getting a private sale invitath.
- It is to be noted that The **Check out** is an included use case, which is part of **Making Purchase**, & it is not available by itself.
- The **View Items** is further extended by several use cases such as; Search Items, Browse Items, View Recommended Items, Add to Shopping Cart, Add to Wish list. All of these extended use cases provide some functions to customers, which allows them to search for an item.
- The **View Items** is further extended by several use cases such as; search Items, Add to shopping cart, Browse Items, View Recommended Items, Add to Wish list. All of these extended use cases provide some functions to customers, which allows them to search for an items.



Activity :-



Conclusion:-

Hence, In this way we have studied about the what is use case diagram (UML) & how to draw a Use case diagram.