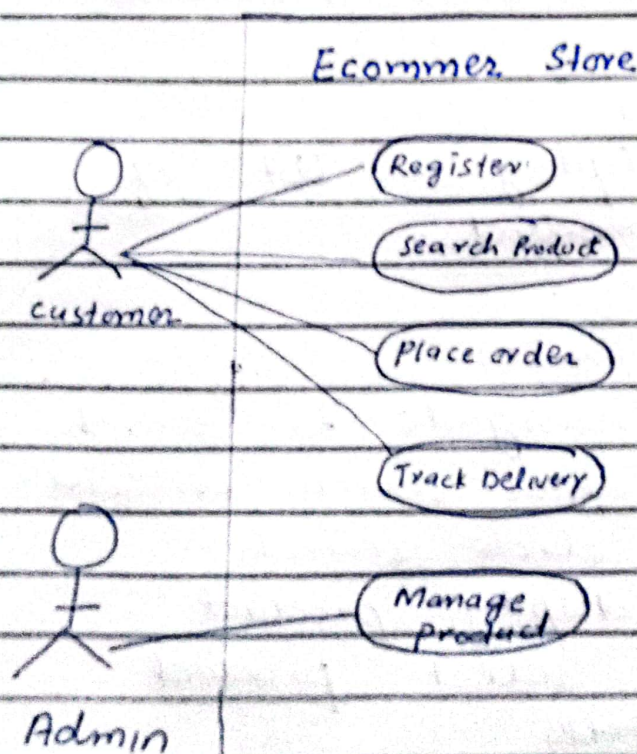**NAME :- ASSAD WAZEER**

REG NO: FA22-BSE-085

CASE STUDY : Ecommerce website.

DESCRIPTION :-

It is a web based application. It is an online platform where individual buy goods or services over the internet.

← USE CASE →

Ecommer Store

- Register
- Search Product
- Place order
- Track Delivery
- Manage Product

customer

Admin

(2) FULLY DRESSED USECASE

→ Usecase Name :-
   Title : Search Products

→ Usecase Id:-
   Identifier · UC-03 ·

→ Actors :-
   Primary Actor :- Customer
   Secondary Actor :- Admin

→ Pre Conditions
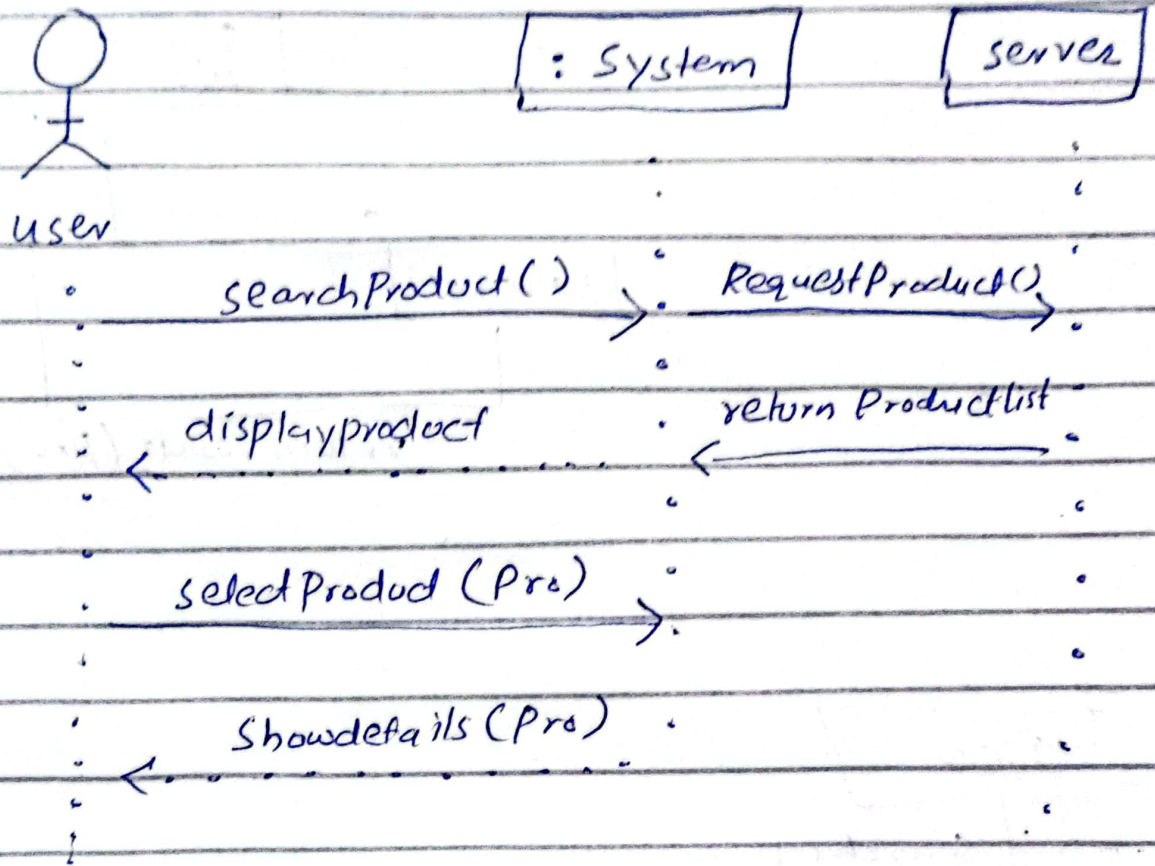   • Customer is logged in
   • product database is populated

→ Post condition
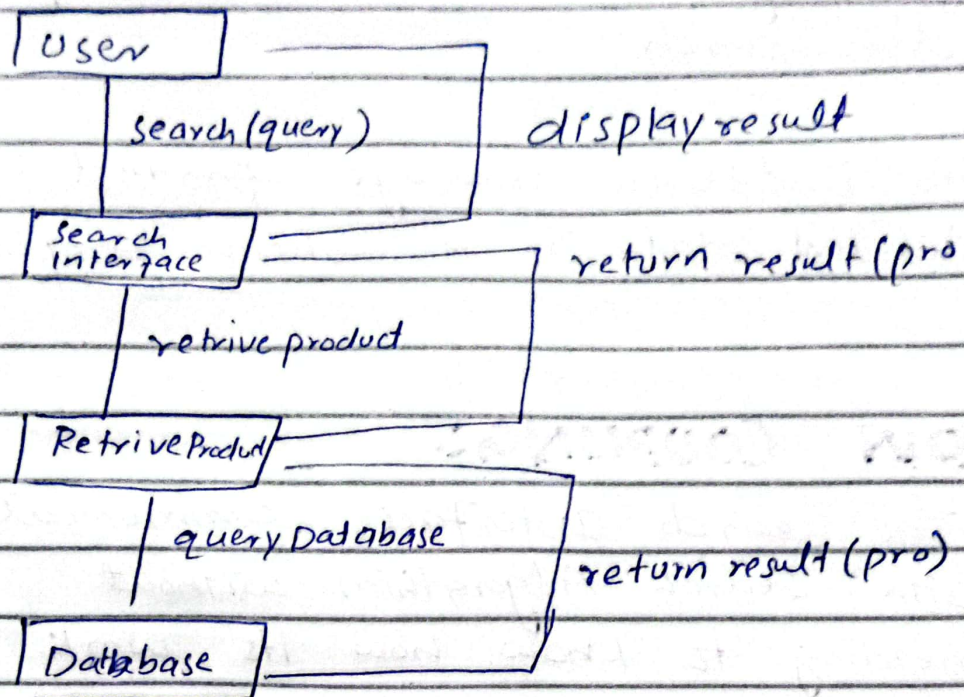   • System display a list of matching products.

→ Success Scenario:-
   • Customer navigate to "search"
   • Customer enter search criteria
   • Customer click search
   • system display product
   • Customer select product for details

SYSTEM SEQUENCE DIAGRAM:

COLLABORATION DIAGRAM

```
┌─────┐
│ User │
└─────┘
     │         search (query)              display result
     │
  ┌────────┐
  │ Search │
  │Interface│                              return result (pro
  └────────┘
     │    retrive product
     │
  ┌──────────────┐
  │ Retrive Product│
  └──────────────┘
     │   query Database                 return result (pro)
     │
  ┌──────────┐
  │ Database │
  └──────────┘
```

SINGLE RESPONSIBILITY PRINCIPLE

Each component should have only
one and one reason to change

→ " The Search Interface is responsible
for input "

→ " Search Algorathim is responsible for
Search logic "

→ " Database is responsible for
storing and providing Database "

HIGH COHESION:-

→ The search Algorathim contain all logic related to processing the search

→ The Database manage product related data in a cohesive component

LOW COUPLING:-

→ The search Interface communicate with Search Algorathim without needing to know how its work."

→ Also search Algorathim communicate with Database without worrying about Data structure

CLASS DIAGRAM:-

USER

UserId : int

name : String

+ searchPro(P) : void

DATABASE

products : List<prod>

+get product : List<pro>

PRODUCT

produdId : int

name : String

price : double

descrip : String

SEARCH INTER

query : String

inputQuery : void

displayresult<List>

SEARCH ALGORATHIM

result : List<products

+ SearchProducts(query : String) <prod>