Types of ecommerce Architectures

i) Two-Tier   ii) Three-tier

A two tier architecture refers two components of your ecommerce business that function on two sides of the architecture.
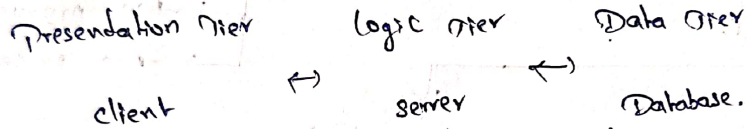
— The first is the client side (user Interface).

— The second is the server side, which holds database data.
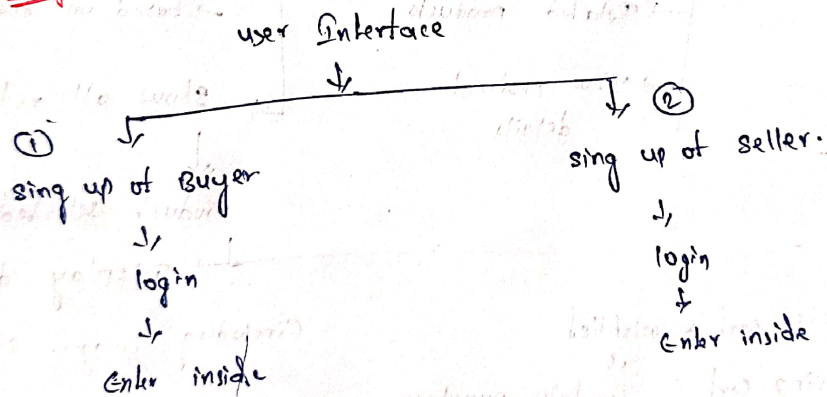
Two tier Architecture

a) client Tier: b) Database Tier:

=> Three-Tier:

Presentation Tier   logic Tier   Data Tier

client   ↔   server   ←)   Database.

=> Presentation layer:

user Interface
↓

① ↙   ↙ ②
sing up of Buyer   sing up of seller.
↓   ↓
login   login
↓   ↓
Enter inside   Enter inside

→ step-1:
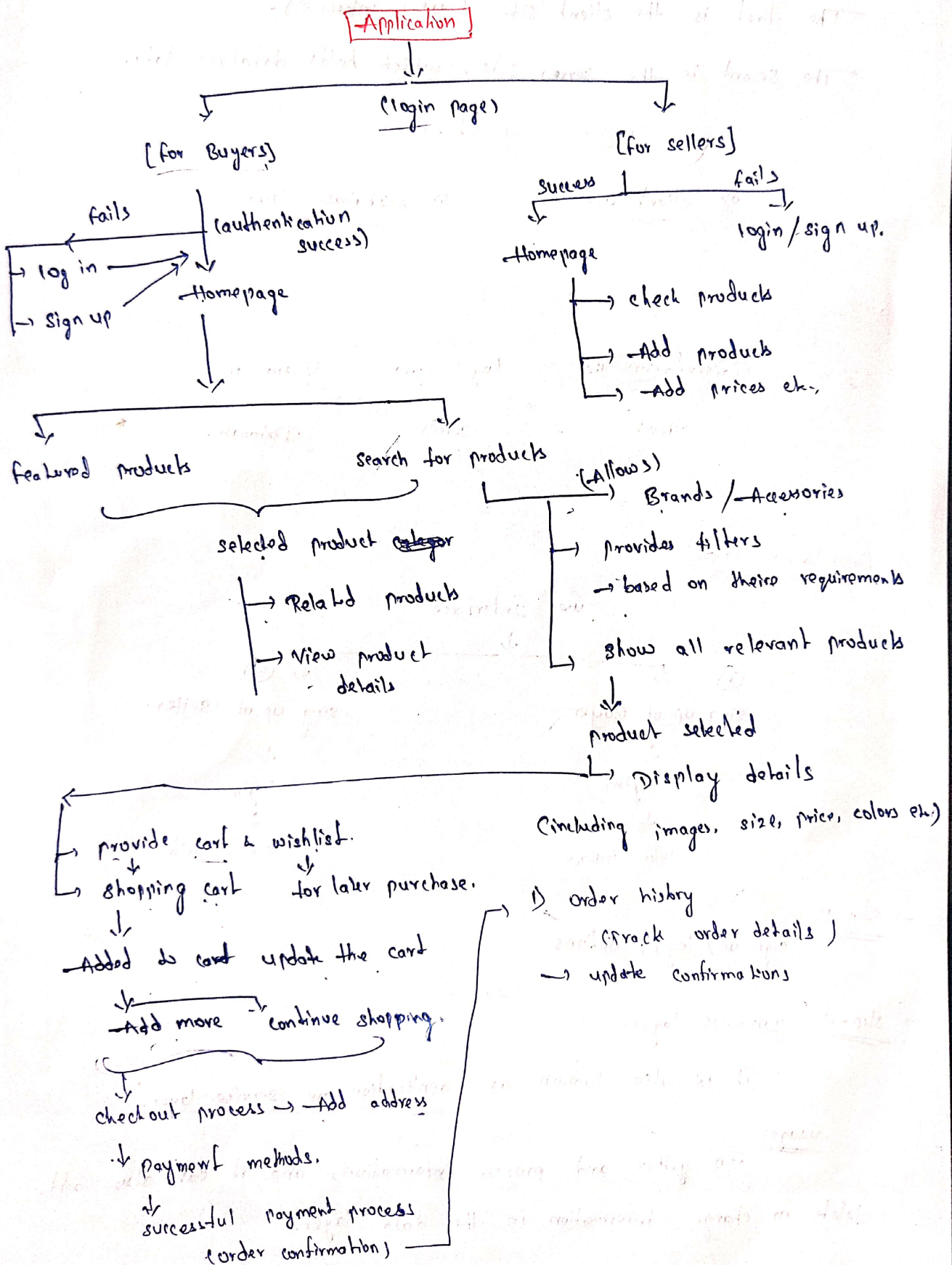sign up / login. options

→ step-2: Business layer.
It is also known as (application or service layer.'

usages:
To gather and process information, and it can also add, delete or change information in the data layer.

Step-2: Data layer:

Database layer, is the final layer used to store data and process requests.

~~front end~~

[Application]

(login page)

[for Buyers]   [for sellers]

                                                success | fails
fails   (authentication   ↓   ↓
          success)   Homepage   login / sign up.
→ log in →   → check products
→ sign up   Homepage   → Add products
                                                   → Add prices etc,

featured products   search for products   ((Allows))
                                                 → Brands / Accessories
              selected product category   → provides filters
                → Related products   → based on their requirements
                → View product   → show all relevant products
                  details
                                                 product selected
                                                 → Display details
                                                 (including images, size, price, colors etc.)

→ provide cart & wishlist
→ shopping cart   for later purchase.   1) order history
                                                    (track order details)
→ Added to cart update the cart   → update confirmations
   → Add more   continue shopping.

checkout process → Add address
  ↓ payment methods.
  ↓
  successful payment process
     (order confirmation)

Requirements

1) User Authentication and Registration.

→ Sign Sign in, and sign out.

→ authentication mechanisms like email verification & password reset.

2) Homepages

→ Display featured products, trending items, and personalized recommendations for user.

→ Implement search bar to help users to find products easily.

3) Product Listing and Details:

→ products into various departments and display them.

→ provide filters and sorting options for users to make them easy search

→ show detailed product pages with images, descriptions, prices. and reviews.

4) Shopping cart:

→ Add to cart for later purchase.

→ Display the cart total and price of each product and allow users to modify quantities or remove items.

5) Checkout and payments

→ Implement a secure and protected checkout process

→ Different types of payment methods.

6) User profiles

→ Allow users to manage their account information, order history. and shipping address.

7) wishlist

    → To save products, wish to purchase ~~toye~~ later.

8) Order Management

    → provide dashboard for users to track their order status

    → implement order processing and status updates.

9) Reviews & Ratings

        allow users to leave reviews & ratings.