

Marketplace Technical Foundation-

[Hekto Furniture]

E-commerce Platform Workflow:

1. Home Page:

- Displays featured categories and popular products.
- Includes a prominent search bar for easy navigation.

2. Product Browsing:

- Users can explore products by categories or search results.
- Filters and sorting options enhance the browsing experience.

3. Product Detail:

- Detailed information about the selected product, including images, descriptions, and pricing.
- Options to select quantity, size, color, etc.

4. Add to Cart:

- Users can add desired products to the shopping cart.
- Cart updates dynamically, reflecting the selected items.

5. Checkout:

- Users review their cart items.
- Enter shipping and billing information.
- Choose shipping methods.

6. Payment:

- Secure payment gateway integration.
- Supports multiple payment methods (credit/debit cards, digital wallets, etc.).

7. Order Confirmation:

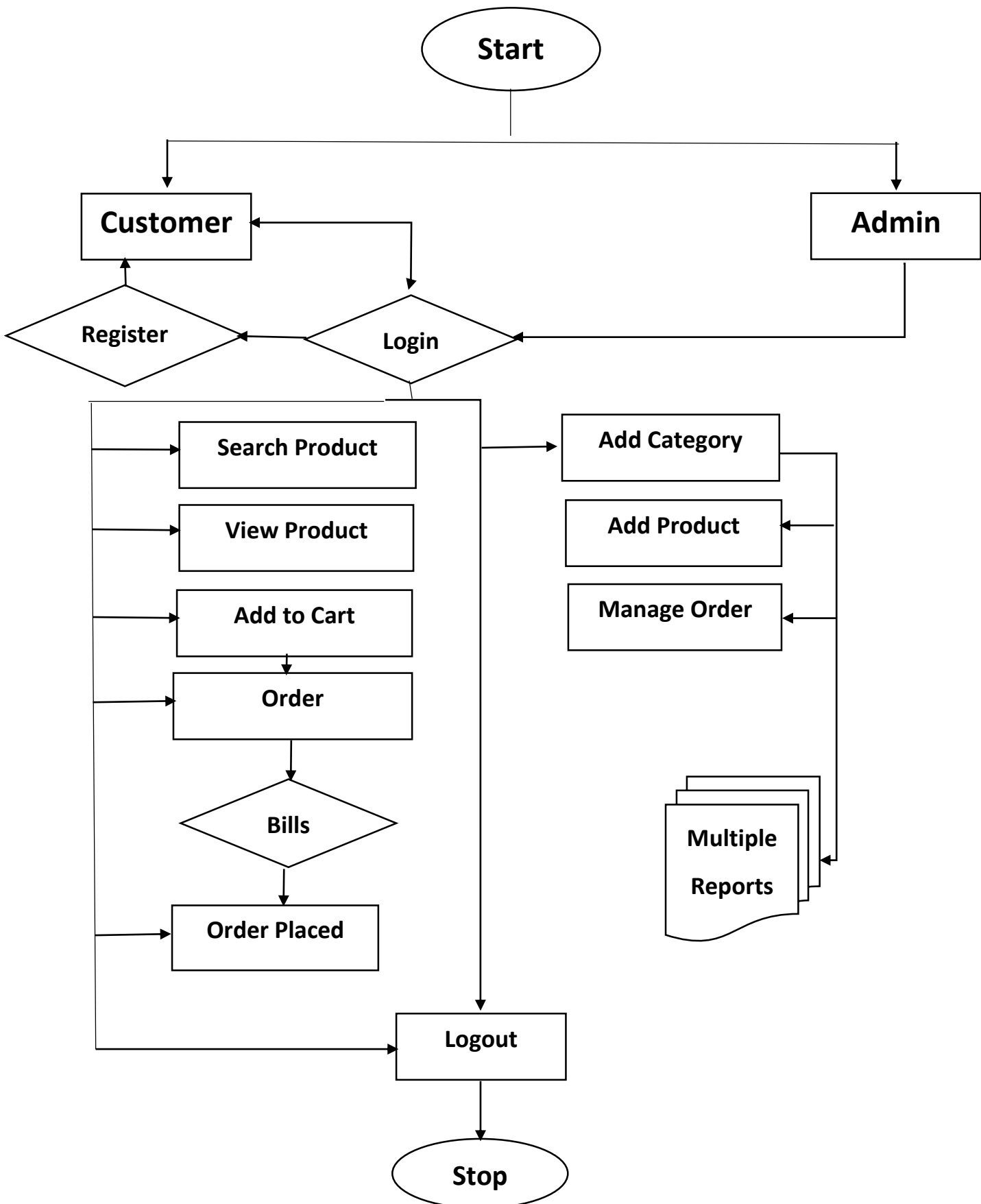
- Displays order summary and confirmation number.
- Sends confirmation email to the user.

8. Shipment:

- Order processing and dispatch.
- Users receive shipment tracking details.

9. Delivery:

- Product delivered to the user's specified address.
- Option for users to confirm receipt and provide feedback.



Third-Party APIs:

- **Shipment Tracking:**
Integrate APIs like ShipEngine to real time tracking updates.
- **Payment Gateways:**
Use Stripe and Use-Shopping-Cart for payment gateway
- **Contact Form:**
Use an APIs like SendGrid to handle form submission and email notifications.

Design System Architecture:

1. Key Workflows:

◆ User Registration:

- **Frontend (Nextjs):** User fills out the registration form.
- **Sanity CMS:** User data is stored in CMS (e.g name, email, password).
- **Confirmation:** A confirmation email is sent to the user.

◆ Product Browsing:

- **Frontend (Nextjs):** User browser product categories.
- **Product Data API:** Fetches product data (e.g image, description, prices) from Sanity CMS.
- **Frontend (Nextjs):** Displays product listings dynamically on the website.

◆ Order Placement:

- **Frontend (Nextjs):** User add items to the carts and processsds to checkout.
- Order details (items, quantities, user information) are sent to Sanity CMS.
- **Sanity CMS:** Stores the order details in the database.
- **Payment Gateways:** Securely processes the payment and confirms the transaction.

◆ Shipment Tracking:

- **Sanity CMS:** Update the order with Shipping detail (e.g tracking number, carrier).
- **Shipment Tracking APIs:** Fetches real-times shipment status.

Plan API Requirements:

1. Endpoint: /products

- **Method:** GET
- **Description:** Fetch all available products
- **Response Example:**

```
[
  {
    "_id": "prood_001",
    "name": "Wooden Coffee Table",
    "description" : "A stylish wooden coffee table",
    "price" : 150,
    "image" : [
      { "_types": "image", "asset": { "_ref": "image_ref_001",
    "_type": "reference" } } ],
    "material" : "wood",
    "stock" : 25,
    "category" : "Living Room",
    "tags" : [ "sale", "new arrival"],
    "reviews" : 4.5,
  }
]
```

2. Endpoint: /order

- **Method:** POST
- **Description:** Create a new order
- **Payload:**

```
{
  "productID" : "prod_001",
  "Quantity" : 2,
  "totalAmount" : 300,
  "OrderDate" : " 2025-01-16"
}
```

3. Endpoint: /payment

- **Method:** POST
- **Description:** Process payment for an order
- **Payload:**

```
{
  "order": {
    "_id": "oder_001",
    "totalAmount": 150,
  },
  "paymentMethod": "Credit Card",
  "status": "completed",
  "transactionId": "txn_001",
  "Amount": 300,
  "PaymentDate": "2025-01-16"
}
```

4. Endpoint: /shipment

- **Method:** GET
- **Description:** Track the shipment status for an order
- **Response Examples:**

```
{
  "_id": "ship_001",
  "order": {
    "_id": "order_001",
    "totalAmount": 150,
  },
  "trackingNumber": "track_001",
  "status": "In Transit",
  "estimateDelivery": "2025-01-16"
}
```

5. Endpoint: /shipment

- **Method:** GET
- **Description:** Fetch all delivery zones and their details
- **Response Examples:**

```
{
  "_id": "zone_001",
  "zoneName": "zone_001",
  "coverageArea": ["City A", "City B",
    "shippingCost": "001",
    "carrier": "Carrier",
    "assignedDriver": "Driver 1"
}
```

Sanity CMS Schemas:

[Product]

- _id
- Name
- Description
- Image
- Price
- Stock
- Discount price
- Categories
- Tags
- Reviews
- Colors

[Order]

- _id
- Product ID
- Quantity
- Total Amount
- Order date

[Customer]

- `_id`
- `Name`
- `Email`
- `Phone`
- `Address`

[Payment]

- `_id`
- `Order`
- `Payment method`
- `Status`
- `Transaction ID`
- `Amount`
- `Payment Date`

[Shipment]

- `_id`
- `Order`
- `Tracking number`
- `Status`
- `Estimate delivery`

[Delivery Zone]

- `-id`
- `Zone name`
- `Coverage area`
- `Shipping cost`
- `Carrier`