**1. College Marketplace (for Students)**

* **Why it stands out:** Solves a real need. Can relate to your campus.
* **What it sells:** Books, electronics, hostel stuff, used items, course materials, notes.
* **Extra Value:** Add bidding system or chat for negotiation.
* **Resume Boost:** Looks like a practical SaaS startup idea.

**Today’s work:**

## **College Marketplace - Project Breakdown**

### **1. Functional Requirements**

These are the core things your system must do:

* User registration and login
* Post product for sale (name, price, image, condition, etc.)
* Browse/search products by category (books, electronics, furniture, etc.)
* Add to cart / express interest
* Contact Information of seller.
* Mark product as sold
* Admin panel to manage users and listings

### **2. Non-Functional Requirements**

These are performance-related or background-level requirements:

* User-friendly interface (simple UI/UX)
* Mobile-responsive design (if you make a front-end)
* Secure login (hashed passwords)
* Scalable DB schema (can handle hundreds of listings)
* Minimal response time for product search
* Data integrity (no orphaned listings or fake users)
* Secure payment gateway.

### **3. ER Diagram – Key Entities**

Here’s a starter idea for your Entity-Relationship model:

#### ****Entities and Attributes****

* **User**
  + user\_id (PK)
  + name
  + email
  + password
  + phone
  + college\_id(optional)
* **Product**
  + product\_id (PK)
  + name
  + description
  + category
  + price
  + condition
  + image\_url
  + date\_posted
  + is\_sold (boolean)
  + user\_id (FK)
  + Contact Details(FK)
* **Category**
  + category\_id (PK)
  + name (Books, Electronics, Furniture, etc.)

Order:

| **Field Name** | **Type** | **Description** |
| --- | --- | --- |
| order\_id | INT (PK) | Unique ID for each order |
| buyer\_id | INT (FK) | Who is buying (from Users table) |
| seller\_id | INT (FK) | Who is selling (from Users table) |
| product\_id | INT (FK) | Which product is being bought |
| order\_date | DATE | When the order was placed |
| status | VARCHAR | e.g., "pending", "completed" (optional) |

### 5. Wishlist (users can save products they want later)

**Why?** Common e-commerce feature, adds engagement.  
**Structure:**

| **Field Name** | **Type** | **Description** |
| --- | --- | --- |
| wishlist\_id | INT (PK) | Unique ID |
| user\_id | INT (FK) | Who added it |
| product\_id | INT (FK) | Which product they wishlisted |
| added\_date | DATE | When they wishlisted it |

### **4. Schema Conversion (ER to Tables)**