***Project Modules***

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|  | **BSc (Hons) Computer Science Network Security**  **MODULE: Server-Side Web Programming**  **MODULE CODE: BCNS2103C**  **Group Assignment**  Bolaky Muhammad Arshad**(2403\_27549)**  Buljeeon Vishwadeep**(2403\_27550)**  Gajuddhur Yovam**(2403\_27562)** |

**1. Item Management Module**

* Manages all products/items available for sale.
* Functions: Add, update, delete, and list items.

***Data Dictionary***

### **1. Items Table**

| **Field Name** | **Data Type** | **Description** |
| --- | --- | --- |
| ItemID | Integer | Unique ID for each item |
| ItemName | Varchar(100) | Name of the item |
| Description | Varchar(255) | Description of the item |
| Category | Varchar(50) | Category of the item |
| UnitPrice(Rs) | Decimal | Selling price per unit |
| PurchasePrice(Rs) | Decimal | Purchase cost per unit |
| StockQuantity | Integer | Current quantity in stock |
| Supplier | Varchar(100) | Name of the supplier |

**2. Customer Management Module**

* Handles customer information and profiles.
* Functions: Register, update, delete, and view customers.

***Data Dictionary***

### **2. Customers Table**

| **Field Name** | **Data Type** | **Description** |
| --- | --- | --- |
| CustomerID | Integer | Unique customer ID |
| FirstName | Varchar(50) | Customer's first name |
| LastName | Varchar(50) | Customer's last name |
| Email | Varchar(100) | Customer's email address |
| PhoneNumber | Varchar(15) | Contact number |
| Address | Varchar(255) | Full postal address |
| DateRegistered | Date | Registration date |

**3. Purchase Module**

* Records purchases made from suppliers (stock entry).
* Functions: Add new stock, update stock levels, track supplier data.

***Data Dictionary***

### **3. Purchases Table**

| **Field Name** | **Data Type** | **Description** |
| --- | --- | --- |
| PurchaseID | Integer | Unique ID for each purchase |
| ItemID | Integer | Foreign key to Items table |
| Quantity | Integer | Quantity purchased |
| PurchaseDate | Date | Date of purchase |
| TotalCost(Rs) | Decimal | Quantity \* PurchasePrice |
| Supplier | Varchar(100) | Supplier involved in the purchase |

**4. Sales Transaction Module**

* Processes customer purchases.
* Functions: Create sales invoice, calculate totals, update stock, record transactions.

***Data Dictionary***

### **4. SalesTransactions Table**

| **Field Name** | **Data Type** | **Description** |
| --- | --- | --- |
| SaleID | Integer | Unique ID for each sale |
| CustomerID | Integer | Foreign key to Customers table |
| ItemID | Integer | Foreign key to Items table |
| Quantity | Integer | Quantity sold |
| SaleDate | Date | Date of sale |
| UnitPrice(Rs) | Decimal | Price per unit sold |
| TotalAmount | Decimal | Quantity \* UnitPrice |
| PaymentMode | Varchar(50) | e.g., Cash, Card, MCB Juice |

