**System Overview: MProc Procurement ERP**

**Core Modules**

| **Module** | **Description** |
| --- | --- |
| Login & Authentication | Unified login for Supplier and Buyer users with MProc branding and password management |
| Supplier UI | Interface for suppliers to manage catalogs, bids, orders, and invoices |
| Buyer UI | Interface for buyers to create requisitions, approve POs, and track deliveries |
| Chatbot Support | Contextual help via chatbot on top-right of every screen |
| Admin Console | Role-based access control, user provisioning, audit logs, Integration Interface and report configuration for insight |

**UI Screens & Navigation Flow**

**1. Login Page**

* **Top Left**: MProc Logo
* **Center**: Username, Password fields
* **Bottom**:
  + “Forgot Password?” and “Reset Password” links
  + Role toggle: Supplier / Buyer
* **Top Right**: Chatbot icon

**2. Supplier Dashboard**

* **Menu**: Home, Catalogs, Bids, Orders, Invoices, Profile
* **Widgets**: Pending Orders, New RFQs, Payment Status
* **Chatbot**: Context-aware help (e.g., “How to submit invoice?”)

**3. Buyer Dashboard**

* **Menu**: Home, Requisitions, Approvals, POs, Deliveries, Profile
* **Widgets**: Pending Approvals, Budget Utilization, Supplier Scorecard
* **Chatbot**: Help with workflows (e.g., “How to create PO?”)

**4. Catalog Management (Supplier)**

* Upload items, pricing, availability
* Bulk import via Excel
* Approval status tracking

**5. Requisition & PO Flow (Buyer)**

* Create requisition → Select supplier → Generate PO → Track delivery

**6. Invoice & Payment (Supplier)**

* Submit invoice → Match with PO → Payment status

**7. Admin Console**

* User roles: Admin, Buyer, Supplier
* Audit logs, access control, system settings

**Database Schema Overview**

**User Table**

CREATE TABLE Users (

user\_id INT PRIMARY KEY,

username VARCHAR(50),

password\_hash VARCHAR(255),

role ENUM('Supplier', 'Buyer', 'Admin'),

email VARCHAR(100),

reset\_token VARCHAR(255),

created\_at DATETIME,

updated\_at DATETIME

);

**Catalog Table**

CREATE TABLE Catalogs (

catalog\_id INT PRIMARY KEY,

supplier\_id INT,

item\_name VARCHAR(100),

description TEXT,

price DECIMAL(10,2),

availability BOOLEAN,

created\_at DATETIME,

updated\_at DATETIME

);

**Requisition Table**

CREATE TABLE Requisitions (

requisition\_id INT PRIMARY KEY,

buyer\_id INT,

item\_name VARCHAR(100),

quantity INT,

status ENUM('Draft', 'Submitted', 'Approved', 'Rejected'),

created\_at DATETIME,

updated\_at DATETIME

);

**Purchase Order Table**

CREATE TABLE PurchaseOrders (

po\_id INT PRIMARY KEY,

requisition\_id INT,

supplier\_id INT,

total\_amount DECIMAL(10,2),

status ENUM('Issued', 'Delivered', 'Closed'),

created\_at DATETIME,

updated\_at DATETIME

);

**Invoice Table**

CREATE TABLE Invoices (

invoice\_id INT PRIMARY KEY,

po\_id INT,

supplier\_id INT,

amount DECIMAL(10,2),

status ENUM('Submitted', 'Approved', 'Paid'),

submitted\_at DATETIME,

paid\_at DATETIME

);

**Chatbot Logs (Optional)**

CREATE TABLE ChatbotLogs (

log\_id INT PRIMARY KEY,

user\_id INT,

query TEXT,

response TEXT,

timestamp DATETIME

);

**Chatbot Integration**

* **Placement**: Top-right corner of every screen
* **Tech Stack**: Integrate with Azure Bot Framework or Dialogflow
* **Features**:
  + Role-based responses
  + FAQ, workflow guidance
  + Escalation to live support

**Tech Stack Suggestions**

* **Frontend**: React.js or Angular
* **Backend**: Node.js / Python Flask / Java Spring Boot
* **Database**: PostgreSQL or MySQL
* **Authentication**: OAuth2 / JWT
* **Hosting**: Azure / AWS
* **Chatbot**: Azure Bot Service / Google Dialogflow