

## Title: Challan System Requirements

---

### 1. User Roles & Authentication

- **Admin:** Full management access, including CRUD operations.
- **Operator/Clerk:** Create and view challans with limited permissions.
- **Customer:** View and download their challan.

### 2. Challan Details

- **Challan ID:** Unique identifier (auto-generated).
- **Customer Information:** Name, contact details, and address.
- **Date:** Auto-populated but editable.
- **Item/Service Details:** Name, quantity, rate, and total.
- **Total Amount:** Auto-calculated.
- **Tax/Discount:** Optional fields to apply taxes or discounts.
- **Payment Status:** Paid, Unpaid, or Partially Paid.
- **Remarks/Notes:** Additional remarks.

### 3. Challan Creation & Management

- **Create New Challan:** Form with fields for all challan details.
- **Edit Challan:** Ability to edit existing challans.
- **Delete Challan:** Soft delete feature.
- **View Challan:** Detailed view of individual challans.
- **Search & Filter:** Search and filter options.
- **Download/Print Challan:** Option to download/print in PDF format.

### 4. Database Design

- **Challans Table:** Details of each challan.
- **Customers Table:** Customer information.
- **Items/Services Table:** Item/service details.
- **Users Table:** Manages user roles and authentication.

### 5. Front-End Requirements (jQuery)

- **Form Validation:** Ensures correct field entry.
- **Dynamic Form Fields:** Add/remove items/services.
- **AJAX Calls:** For CRUD operations without page reload.

- **Live Search & Filter:** Real-time search and filter.
- **DataTables Integration:** Display challans in table format.
- **Interactive UI:** User-friendly interface.

#### 6. Back-End Requirements (if applicable)

- **API Endpoints:** CRUD operations.
- **Database Integration:** Data fetching and storage.
- **Security Measures:** CSRF protection, data validation.
- **PDF Generation:** Server-side PDF generation.

#### 7. Testing & Deployment

- **Unit Testing:** Test individual components.
- **Integration Testing:** Test the entire workflow.
- **Deployment:** Deploy on a web server.

#### 8. Additional Features (Optional)

- **Notifications:** Email/SMS notifications.
- **Multi-language Support:** Language options.
- **Reporting:** Generate reports based on data.