**Functional and non-functional requirements** for the **Case Registration and Management**

## **Functional Requirements**

### **Case Registration**

1. **Fields**: Case ID (auto-generated), Case Type, Parties Involved (names, roles), Filing Date, and x Description.
2. Include **dropdown menus** for case types and courtroom selection to minimize data entry errors.
3. Enable **upload of supporting documents** ( petitions, evidence) with restrictions on file formats (PDF, JPEG, PNG) and size limits.
4. Validate mandatory fields to prevent incomplete case submissions.

### **2. Case Management**

1. Allow **status updates** for cases:
   * **Status Options**: Filed, Under Review, Hearing Scheduled, Resolved, Dismissed.
   * Automatically track litigation stages based on status changes.
2. Enable case **assignment to specific courtrooms** with an availability checker to avoid conflicts.
3. Provide functionality to schedule or reschedule hearings.
4. Allow **admins to notify relevant parties** (lawyers, judges, clerks) of updates via email or SMS.

### **3. Search and Filtering**

1. Provide a **basic search** by Case ID or Party Name for public users.
2. Offer **advanced search filters** for authorized roles.Filters: Case Type, Filing Date, Status, Parties Involved, Courtroom.
3. Return search results with summary information (Case ID, Type, Status, Filing Date).

### **4. Document Management**

1. Allow **upload of multiple documents** for each case and associate them with specific litigation stages.
2. Include a **document retrieval system** for authorized roles to search and download case documents by metadata ( Case ID, upload date).

### **5. Role-Based Access**

* Ensure features are accessible only to authorized roles:

1. **Clerks/Admins**: Full access to register, update, assign, and schedule cases.
2. **Lawyers**: View assigned cases, submit evidence, and track litigation stages.
3. **Public Users**: Limited access to search cases and view status (no editing).

### ****6. Reporting :****

1. Daily/weekly reports on new filings, resolved cases, and pending cases.
2. Export reports in common formats like PDF or Excel.

## ****Non-Functional Requirements****

1. Ensure the page is **user-friendly** with an intuitive layout, form validation, and tooltips for complex fields.
2. Include clear labels and instructions to minimize errors by users unfamiliar with the system.
3. Use secure login mechanisms (e.g., multi-factor authentication) to restrict access to authorized users.
4. Encrypt sensitive data (e.g., party details, case records) during transmission and storage.
5. Prevent unauthorized document access using **dynamic session tokens** and strict user permissions.
6. Ensure the system can handle **high traffic loads** during peak hours without delays or downtime.
7. Case searches should retrieve results within **2 seconds** for up to **10,000 records**.
8. Document uploads should support file sizes up to **10MB** and complete within **5 seconds** for standard internet connections.
9. The system must be scalable to handle increasing numbers of:
   1. **Cases**: Up to **1 million active cases**.
   2. **Users**: Thousands of concurrent users, including clerks, lawyers, and public users.
10. Comply with **WCAG 2.1 (Web Content Accessibility Guidelines)** to make the page accessible to users with disabilities.
    1. Include screen reader support, keyboard navigation, and high-contrast mode.
11. Ensure the system has **99.9% uptime**, with robust backup and recovery mechanisms.
12. Implement automated **database backups** every 30 minutes to prevent data loss

**Use Case Name:** Case Registration and Management

**Actors:**Clerk,Admin,**Lawyer,**Public User.

**Scenario:**

1. The Clerk/Admin logs into the system using valid credentials.
2. The system verifies the credentials and redirects to the dashboard.
3. The Clerk navigates to the "Register New Case" page.
4. The system displays a form with required fields (Case Type, Parties Involved, Filing Date).
5. The Clerk fills out the form and uploads supporting documents.
6. The system validates the inputs and uploads.
7. A The Clerk submits the case.
8. The system generates a unique Case ID, saves the details in the database, and redirects the Clerk to the "Pending Cases" list.
9. User view their case history and find lawyer
10. For the lawyer same way clark find case details,submit evidence.

**Exceptions:**

1.Unauthorized Access

* Condition: A user without appropriate permissions attempts to register or update a case.
* System Response: The system denies access and logs the incident.

2: Document Upload Failure

* Condition: A document upload fails due to size or format restrictions.
* System Response: The system prompts the user to upload a valid file.

**Preconditions:**

1. The user must have a valid account and appropriate role-based access permissions.
2. The system must be connected to the database to fetch or save case-related data.
3. Required metadata (e.g., list of case types, courtroom availability) must be preloaded into the system.

**Postconditions:**

1. The case is successfully registered, and a unique Case ID is generated.
2. Case details are saved in the database and are accessible to authorized users.
3. Notifications (if enabled) are sent to relevant parties.
4. Came some error go to log in page.