**Flowchart for Web-Based Student Sessional Clearance System**

1. **Start**
   * Begin the process.
2. **Student Login**
   * Student accesses the system via a web portal.
   * Enters login credentials (e.g., matric number and password).
3. **Authentication**
   * System verifies the student's credentials.
   * **If valid**: Proceed to the next step.
   * **If invalid**: Notify the student (e.g., "Invalid Credentials") and end the process.
4. **Clearance Requirements Check**
   * System displays a list of clearance requirements (e.g., library, fees, department, etc.).
   * Checks the status of each requirement.
5. **Clearance Status**
   * **If all requirements are met**: Proceed to generate clearance certificate.
   * **If any requirement is pending**: Notify the student (e.g., "Pending Clearance") and end the process.
6. **Generate Clearance Certificate**
   * System generates a digital clearance certificate.
   * Certificate is made available for download or printing.
7. **Log Clearance Details**
   * System logs the clearance details (e.g., student ID, clearance date, status).
8. **Notification**
   * Notify the student (e.g., "Clearance Successful").
   * Send a copy of the clearance certificate to the student's email (optional).
9. **End**
   * Process concludes.

**Key Components of the Flowchart**

1. **Student Login**: Ensures only registered students can access the system.
2. **Authentication**: Verifies the student's identity.
3. **Clearance Requirements Check**: Ensures all necessary clearance criteria are met.
4. **Clearance Status**: Determines if the student is eligible for clearance.
5. **Generate Clearance Certificate**: Produces a digital certificate for successful clearance.
6. **Log Clearance Details**: Maintains a record of all clearance activities for future reference.
7. **Notification**: Provides feedback to the student about the clearance status.

**Additional Features (Optional)**

* **Admin Dashboard**: For managing student records, updating clearance requirements, and generating reports.
* **Email Notifications**: To keep students informed about their clearance status.
* **Payment Integration**: For students to pay outstanding fees directly through the system.
* **Multi-Level Approval**: For departments like the library, accounts, and HOD to approve clearance requests.