**Final Project Proposal**

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**1. Project Title**

**H1B Visa Application Management System (H1B-VAMS)**

**2. Scenario Overview**

The **H1B Visa Application Management System (H1B-VAMS)** is a web-based platform designed to streamline the management of H1B visa applications. It will allow applicants, employers, and admins to interact with the system to submit, review, and manage visa applications, avoiding duplicate entries and ensuring the application data is properly stored and tracked.

**System Users:**

* **Applicants:** Fill out and submit H1B visa applications, update information, and check application status.
* **Employers:** Submit applications on behalf of employees, review applications, and provide feedback.
* **Admins:** Review and manage applications, avoid duplicate submissions based on passport number, and view reports on application trends.

The main goal is to automate the application submission process and improve the tracking of applicants, employers, and application statuses.

**3. Key Features**

The system will support the following core functionalities:

* **Applicant Profile Creation and Login:** Applicants can create profiles, log in, and track applications.
* **Employer Profile Creation and Login:** Employers can submit applications for employees and track their progress.
* **Application Submission, Rescheduling, and Canceling:** Applicants and employers can manage applications.
* **Avoid Duplicate Applications:** The system ensures that multiple applications from different employers using the same passport number are considered as a single application.
* **Admin Panel for Managing Applications:** Admins can review and manage applications, assign employers, and approve or reject applications.
* **Application Status:** Applicants can track their application status, view feedback, and submit updates.
* **Application Reports:** Admins can view reports on the number of applications, employers, trends in application submission, etc.

**4. Planned Database Structure**

We plan to design 6–7 tables, with relationships and foreign keys that support a normalized schema. Tentative tables include:

| **Table Name** | **Description** |
| --- | --- |
| **Applicants** | Stores applicant info (ID, name, passport number, country, contact details) |
| **Employers** | Stores employer details (ID, name, employer location, contact information) |
| **Applications** | Stores application details (ID, applicant ID, employer ID, job title, salary) |
| **PassportNumbers** | Unique passport number records, associated with multiple applications |
| **Admins** | Admin login credentials and roles (ID, name, username, password) |
| **ApplicationStatus** | Stores the current status of each application (pending, approved, rejected) |
| **Feedback** | Notes and ratings for completed applications (feedback score, comments) |

**5. Technology Stack**

We will use the following tools and technologies:

| **Layer** | **Toolset** |
| --- | --- |
| **Database** | MySQL (via phpMyAdmin or local installation) |
| **Backend** | PHP with basic session management and CRUD operations |
| **Frontend** | HTML5, CSS3, JavaScript (Bootstrap for UI styling) |
| **Optional GUI** | Power BI to visualize application trends, employer performance, and applicant satisfaction |

**6. Advanced Ideas (Optional)**

We plan to include the following creative/advanced features if time permits:

* **Login System with Session Control:** Implement user-specific login functionality for Applicants, Employers, and Admins with session management.
* **Automated Email Reminders:** Send email reminders to applicants and employers for upcoming application deadlines or status updates using cron jobs and mail scripts.
* **Power BI Dashboard for Admins:** Admins can view visualizations on the number of applications per employer, number of applications per country, application status trends, and feedback scores.
* **Application Reports:** Admins can generate detailed reports based on applications, including rejection rates, application trends, etc.
* **Passport Number Duplication Detection:** Use database logic to ensure that applications from different employers with the same passport number are linked under the same applicant.