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Project ID: 12

Project title: Infra Audits-Analysis Generation Report

Technical Components

Component	Python stack AI
Backend	Python, Django
Frontend	HTML, CSS, JAVASCRIPT
Database	MySQL
API	RESTful services

PROBLEM STATEMENT: Infra Audits - Analysis Report Generation

The challenges involved in the manual auditing over creating a website for timely delivery of information to auditors.

- ✓ **Delayed communication and response:** With manual auditing, there may be delays in communication between the auditors, clients, and technicians. The process of collecting observations, directing technicians, and generating reports may take longer, especially if the auditing team needs to travel between different locations.

- ✓ **Data management challenges:** One of the main disadvantage of auditing manually is ,it involves recording the collected observation in physical format like printouts .Managing and organizing the collected data manually can be time consuming. It may be challenging to analyze and track infrastructure issues systematically over time.

- ✓ **Scalability limitations:** As educational institutions grow or infrastructure expands, manual auditing may become less scalable. It may require additional resources and time to cover larger areas or accommodate increasing infrastructure complexity. Scaling up manual auditing processes can be challenging and may result in increased costs and logistical difficulties.
- ✓ **Administrative burden:** Managing records physically , resolving conflicts, and ensuring timely delivery of critical information to the auditors and technicians provides a significant administrative burden

PROJECT-FLOW:

1. Purpose:

- To develop a portal for infrastructure auditing purposes that efficiently manages communication between the auditors, technicians and admin through portal.

2. Scope:

- This system includes user authentication, a task assigning form, monitoring the progress of auditing and repairing, and a real-time dashboard for viewing and managing schedules.

3. Business Context:

- The Infra Audits - Analysis Report Generation portal is aimed to enhance the communication clarity and timeliness across admin, Auditors and technicians thus boosting organizational efficiency by minimizing scheduling conflicts.

4. Consideration:

- All users possess active Google accounts for authentication.
- Users have regular access to internet-enabled devices.

5. Dependencies:

- Integration with Google RESTful API for user authentication.
- **Database Management System (DBMS):** The portal will require a reliable DBMS to store user information, task details, audit reports, and other relevant data.

- **Web Application Framework:** Creating the front-end and back-end of the portal using python Django framework.
- **Authentication and Security Services:** The portal will rely on authentication and security services to ensure secure user login, data encryption, access control, and protection against potential vulnerabilities or attacks.
- **Reporting and Analytics Tools:** Tools or libraries for generating reports, performing data analytics, and visualizing auditing-related information.

6.User Stories:

- As a admin. I need a portal to efficiently assign task for auditors, technicians and remotely check their progress. Finally I needed to create a report for management after every week of auditing.

FUNCTIONAL REQUIREMENTS:

1.User Registration and Authentication:

- **User registration:** Allow administrators and auditors to create user accounts with unique credentials.

- **User authentication:** Implement a secure login system to verify user identities and control access to the portal's features.

2.User Roles and Permissions:

- **Administrator role:** Grant administrators privileges to manage tasks, assign auditors,   and view audit reports.
- **Auditor role:** Provide auditors with the ability to view assigned tasks, update task status, and submit audit reports.

3.Task Management:

- **Task creation:** Enable administrators to create new tasks, including specifying task details, deadlines, and related documentation.

- **Task assignment:** Allow administrators to assign tasks to auditors, specifying the responsible auditor(s) for each task.

- **Task tracking:** Enable auditors to view their assigned tasks, update task statuses (e.g., in progress, completed), and mark tasks as finished.

4. Progress Monitoring:

- **Dashboard:** Provide administrators with a centralized dashboard displaying an overview of all tasks, their statuses, and progress.

- **Task status updates:** Allow auditors to update the status of their assigned tasks, providing real-time progress information.
- **Notifications:** Implement a notification system to alert administrators of task updates, completion, or approaching deadlines.

5. Audit Report Submission and Review:

- **Report submission:** Enable auditors to submit audit reports through the portal, including relevant findings, recommendations, and supporting documents.
- **Report review:** Allow administrators to review submitted audit reports, provide feedback, and request clarifications if needed.

FLOW CHART: