File Organization and Database Systems Lab Report

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Framework(s) used for the Backend:

Django

Framework(s) used for the Frontend:

Bootstrap

Code Repository:

[You can click on this](#)

A brief description:

The actual erp website is designed using HTML, CSS and Javascript on the frontend along with the additional usage of libraries like Bootstrap, JQuery and php for the backend. This website is being built from scratch using Django for the backend and Plain HTML and CSS along with a tiny bit of Bootstrap on the frontend. First of all the website starts with the showing of the user authentication page which is basically an HTML form which asks the user relevant details like username, password. On entering the correct username and password a list of the number of courses that are taken in by the student is shown along with his department. Further diving in, we can see the respective marks (grades actually) secured by the student in each of the respective courses along with the CGPA. Now secondly there is an additional feature in which a new student can enrol himself or herself in the system using the Sign Up feature available on the webpage. The user has to enter the relevant details like Name, Roll No, Courses enrolled in, etc. Now on the backend all this information is captured and pushed into sqlite database management system. There is even an admin panel for the professors to enter grades of the respective students. The professors need to select the names and roll no.s of the students and the courses that the students have taken and then enter the corresponding grades obtained by the students, When all the professors of the corresponding courses enter the respective grades of the students. The CGPA automatically gets calculated and is displayed to the students on their respective profiles.
This is a brief overview of the entire project.

Database Schema:

Following tables are implemented on sqlite on the backend:

1. Students (Name, Roll No (Primary Key), Phone Number, Date of Birth, Department Id, Guardian's Name)
2. Department (dep_id (Primary Key), Name of the dep, dept_hod)
3. Faculty(faculty_id (Primary Key), name, email, phone_number, dep_id)
4. Courses (Course_id (Primary Key), Name, dep_id)
5. Ref_Users (reg_no, course_id, roll_no, grades)