Student Record Management System

Requirements

Project Scope:-

This project is used to manage and maintain the student records within an organization. Here, the user can add new student information, update existing student(s) information, add student records from excel sheet, delete student records and can search/filter student records.

Functional Requirements:-

R1.   Manage Student Records

This requirement is for managing student records.

R1.1   Add Student Record

Input: Student information, skills and achievements

Output: Student record is saved and message is shown to the user

R1.2   Update Student Record

Input: Updated student information, skills or achievements

Output: Student record is updated and message is shown to the user

R1.3   Delete Student Record

Input: Student ID

Output: Student record is deleted and message is shown to the user

R1.4   View Student Record

Input: Student ID

Output: Show student record with given student ID to the user

R1.5   View Student List

Input: User selection

Output: Show list of all registered students

R1.6   Load Student Records from Excel Sheet

This requirement is for saving student records in the system from the external file i.e. excel sheet. Each row of excel sheet contains a record for a particular student.

Input: Excel sheet containing list of students

Output: Student records are saved in the system and message is shown to user

R1.7   Update Multiple Student Records

This requirement is to ease the task of updating student records individually. Students sharing common information can be updated easily.

Input: List of Student IDs, updated student information

Output: Student records with given IDs are updated and message is shown to the user

R2.   Search Student Records

This requirement is for finding student records quickly and based on some criteria.

R2.1   Simple Search

This requirement is to simply search a student record by only specifying either Student ID, Student name or Company name.

Input: Student ID or Student name or Company name

Output: Show list of student records satisfying the given conditions

R2.2   Filter Student Records

This requirement is to filter student records based on multiple conditions.

Input: Batch year, Branch, CPI, Company, Career preference, Gender, Admission Category and Caste Category

Output: Show list of student records matching the given filters

R3.   Login Functionality

This requirement is for user authentication.

Input: Username, Password

Output: For correct credentials, user is redirected to the home page. For incorrect credentials, "Incorrect username or password" is shown to the user.

Tools & Technology used:-

Backend – Django Framework (Python)

Frontend – HTML, CSS, Bootstrap, JavaScript and jQuery

Database – MySQL RDBMS

Editor – VS Code