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1  Algorithm:
2  Initialize Database:
3
4  1. Connect to the SQLite database or create a new one.
5  2. Create tables (students and lessons) if they don't exist.
6
7  Define Database Operations:
8
9  .`add_student(): Add a new student and associated lessons.
10 .`delete_student(): Delete a student and related lessons.
11 .`update_student(): Update information for an existing student and related lessons.
12 .`view_student(): View information for a specific student and associated lessons.
13
14 Define Flask Routes:
15
16 .`: Display the main page with forms for adding, deleting, updating, and viewing
17 students.
18 .`/add_student: Handle the form submission for adding a student.
19 .`/delete_student: Handle the form submission for deleting a student.
20 .`/update_student: Handle the form submission for updating a student.
21 .`/view_student: Handle the form submission for viewing a student.
22
23 Handle Form Submissions:
24
25 1.Extract data from the submitted forms.
26 2.Call the appropriate database operation based on the form action.
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28 Display Results:
29
30 Render the main page with appropriate messages based on the success or failure of
31 database operations.
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68 Flowchart:
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70 +-----+
71 | Start |
72 |       |
73 +-----+
74       |
75       v
76 +-----+
77 | Main Page |
78 |           |
79 +-----+
80       |
81       v
82 +-----+
83 | Add Student Form |
84 |                 |
85 +-----+
86       |
87       v
88 +-----+
89 | Database Operation: |
90 |   Add Student      |
91 +-----+
92       |
93       v
94 +-----+
95 | Display Main Page |
96 |   with Message    |
97 +-----+
98       |
99       v
100 +-----+
101 | Repeat for other forms |
102 | (Delete, Update, View) |
103 +-----+
104       |
105       v
106 +-----+
107 | End |
108 |     |
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137 Pseudocode:
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139 # Function create-database
140 function create_database():
141     connect to SQLite database
142     create students table if not exists
143     create lessons table if not exists
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145 # Function to add a student
146 function add_student(student_data):
147     connect to SQLite database
148     execute SQL query to insert student_data into students table
149     for each lesson in student_data.lessons:
150         execute SQL query to insert (student_number, lesson) into lessons table
151
152 # Function to delete a student
153 function delete_student(student_number):
154     connect to SQLite database
155     execute SQL query to delete student from students table where student_number =
        student_number
156     execute SQL query to delete related lessons from lessons table where student_number
        = student_number
157
158 # Function to update a student
159 function update_student(student_data):
160     connect to SQLite database
161     execute SQL query to update student_data in students table where student_number =
        student_data.student_number
162     execute SQL query to update related lessons in lessons table where student_number =
        student_data.student_number
163
164 # Function to view a student
165 function view_student(student_number):
166     connect to SQLite database
167     execute SQL query to fetch student_info from students table where student_number =
        student_number
168     execute SQL query to fetch lessons from lessons table where student_number =
        student_number
169     display student_info and lessons
170
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