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Micro IT Internship 2025

Project 01 (09) : Student Management System

Tech Stack: Python + Flask + SQLite (Simple backend project)

- **Folder Structure :**

```
student-management/
├── app.py
├── templates/
│   ├── index.html
│   ├── add_student.html
│   └── students.html
├── static/
│   └── style.css
└── students.db (auto-generated)
```

- **app.py (Python) :**

```python
from flask import Flask, render_template, request, redirect
import sqlite3

app = Flask(__name__)

# DB setup
def init_db():
    conn = sqlite3.connect('students.db')
    c = conn.cursor()
    c.execute('''
        CREATE TABLE IF NOT EXISTS students (
            id INTEGER PRIMARY KEY AUTOINCREMENT,
            name TEXT,
            email TEXT,
            course TEXT
        )
    ''')
    conn.commit()
    conn.close()

@app.route('/')
def index():
    return render_template('index.html')
```

```python
@app.route('/add', methods=['GET', 'POST'])
def add_student():
    if request.method == 'POST':
        name = request.form['name']
        email = request.form['email']
        course = request.form['course']
        conn = sqlite3.connect('students.db')
        c = conn.cursor()
        c.execute('INSERT INTO students (name, email, course) VALUES (?, ?, ?)', (name, email, course))
        conn.commit()
        conn.close()
        return redirect('/students')
    return render_template('add_student.html')

@app.route('/students')
def show_students():
    conn = sqlite3.connect('students.db')
    c = conn.cursor()
    c.execute('SELECT * FROM students')
    students = c.fetchall()
    conn.close()
    return render_template('students.html', students=students)

if __name__ == '__main__':
    init_db()
    app.run(debug=True)
```

- **Templates/index.html :**

```html
<!DOCTYPE html>
<html>
<head><title>Add Student</title></head>
<body>
    <h2>Add Student</h2>
    <form method="POST">
        Name: <input type="text" name="name" required><br>
        Email: <input type="email" name="email" required><br>
        Course: <input type="text" name="course" required><br>
        <input type="submit" value="Add Student">
    </form>
</body>
</html>
```

- **Templates/add_student.html :**

```html
<!DOCTYPE html>
<html>
<head><title>Add Student</title></head>
<body>
   <h2>Add Student</h2>
   <form method="POST">
      Name: <input type="text" name="name" required><br>
      Email: <input type="email" name="email" required><br>
      Course: <input type="text" name="course" required><br>
      <input type="submit" value="Add Student">
   </form>
</body>
</html>
```

- **Templates/student.html :**

```html
<!DOCTYPE html>
<html>
<head><title>Student List</title></head>
<body>
   <h2>All Students</h2>
   <ul>
      {% for student in students %}
      <li>{{ student[1] }} | {{ student[2] }} | {{ student[3] }}</li>
      {% endfor %}
   </ul>
</body>
</html>
```