{···} | openapi_week6.yaml | **Explore**

Week Six Assignment Problem Statement 1.0.0   OAS3

openapi_week6.yaml

In this assignment, you have to create a RESTful API, database models using Flask-RESTful and flask-SQLAlchemy. We list below instructions to be followed in preparing and submitting the solution.

General instructions:

1. Submit a single .zip file containing all your submission files and folders, the name of which should be "roll_number.zip". E.g.: 21f1000000.zip
2. The folder structure inside the zip file should be as follows:
    I. The Python program must be written inside a file named "app.py". This file must reside inside the root folder.
    II. The database file named "api_database.sqlite3". You are not required to submit this database file with your submission.
3. You should not keep any code inside the scope of the condition " if __name__ == '__main__' " except run() call.
4. Allowed Python packages: flask, flask-sqlalchemy, flask-restful, and any standard Python3 package.
5. The database URI must be the same as: app.config['SQLALCHEMY_DATABASE_URI'] = 'sqlite:///api_database.sqlite3'.
6. You should not use create_all() call in your program to create a database.

Course Table Schema

Column Name	Column Type	Constraints
course_id	Integer	Primary Key, Auto Increment
course_name	String	Not Null
course_code	String	Unique, Not Null
course_description	String	

Student Table Schema

Column Name	Column Type	Constraints
student_id	Integer	Primary Key, Auto Increment
roll_number	String	Unique, Not Null
first_name	String	Not Null
last_name	String	

Enrollment Table Schema

Column Name	Column Type	Constraints
enrollment_id	Integer	Primary Key, Auto Increment
student_id	Integer	Foreign Key (student.student_id), Not Null
course_id	Integer	Foreign Key (course.course_id), Not Null

Error Codes

Resource	Error Code	Message
Course	COURSE001	Course Name is required
Course	COURSE002	Course Code is required
Student	STUDENT001	Roll Number required
Student	STUDENT002	First Name is required
Enrollment	ENROLLMENT001	Course does not exist
Enrollment	ENROLLMENT002	Student does not exist.

Servers

> http://127.0.0.1:5000/

default ⌃

GET	/api/course/{course_id}	⌄
PUT	/api/course/{course_id}	⌄
DELETE	/api/course/{course_id}	⌄
POST	/api/course	⌄
GET	/api/student/{student_id}	⌄
PUT	/api/student/{student_id}	⌄

DELETE   `/api/student/{student_id}`   ⌄

POST   `/api/student`   ⌄

GET   `/api/student/{student_id}/course`   ⌄

POST   `/api/student/{student_id}/course`   ⌄

DELETE   `/api/student/{student_id}/course/{course_id}`   ⌄

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