**Assignment 1**

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**from fastapi import FastAPI, HTTPException**

**from pydantic import BaseModel**

**from typing import List**

**app = FastAPI()**

**class Student(BaseModel):**

**id: int**

**name: str**

**age: int**

**gender: str**

**program: str**

**students: List[Student] = []**

**@app.get("/students", response\_model=List[Student])**

**def get\_students():**

**return students**

**@app.get("/students/{student\_id}", response\_model=Student)**

**def get\_student(student\_id: int):**

**for student in students:**

**if student.id == student\_id:**

**return student**

**raise HTTPException(status\_code=404, detail="Student not found")**

**@app.post("/students", response\_model=Student)**

**def add\_student(student: Student):**

**students.append(student)**

**return student**

**@app.put("/students/{student\_id}", response\_model=Student)**

**def update\_student(student\_id: int, updated\_student: Student):**

**for index, student in enumerate(students):**

**if student.id == student\_id:**

**students[index] = updated\_student**

**return updated\_student**

**raise HTTPException(status\_code=404, detail="Student not found")**

**@app.delete("/students/{student\_id}")**

**def delete\_student(student\_id: int):**

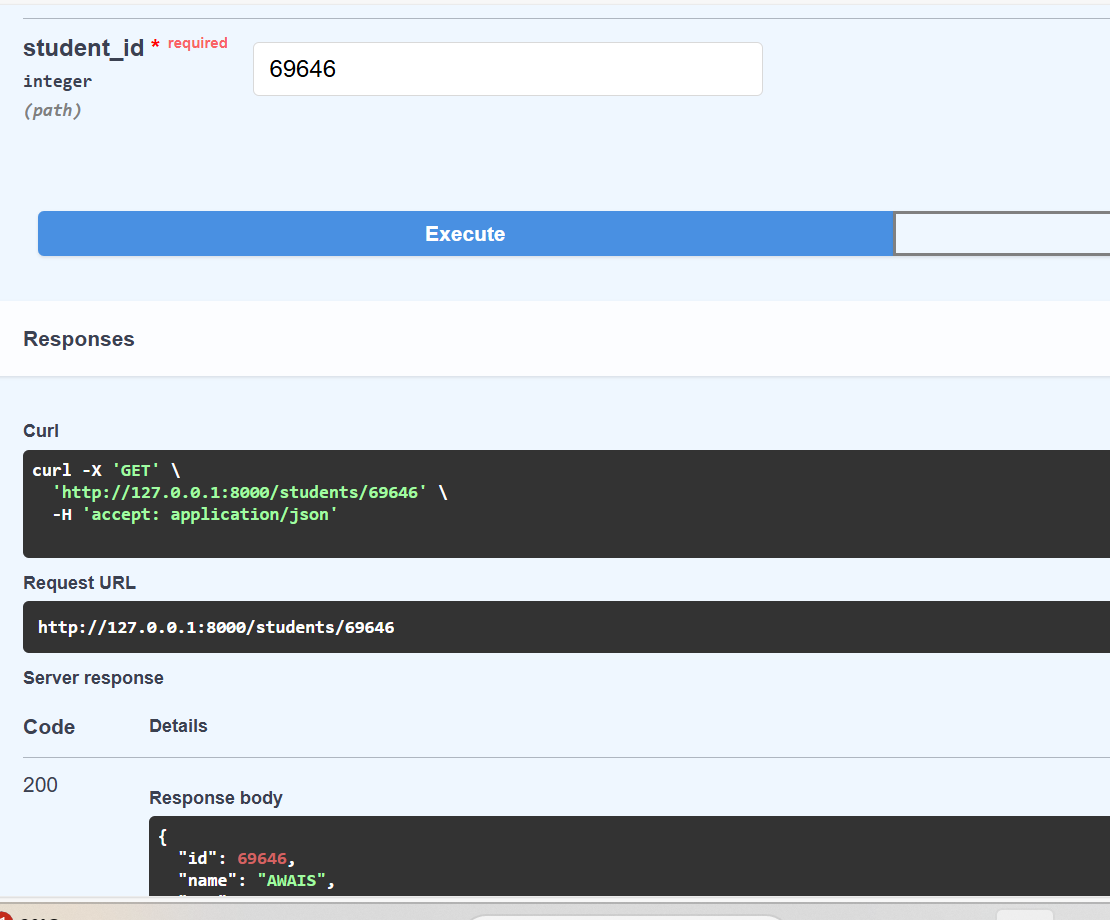
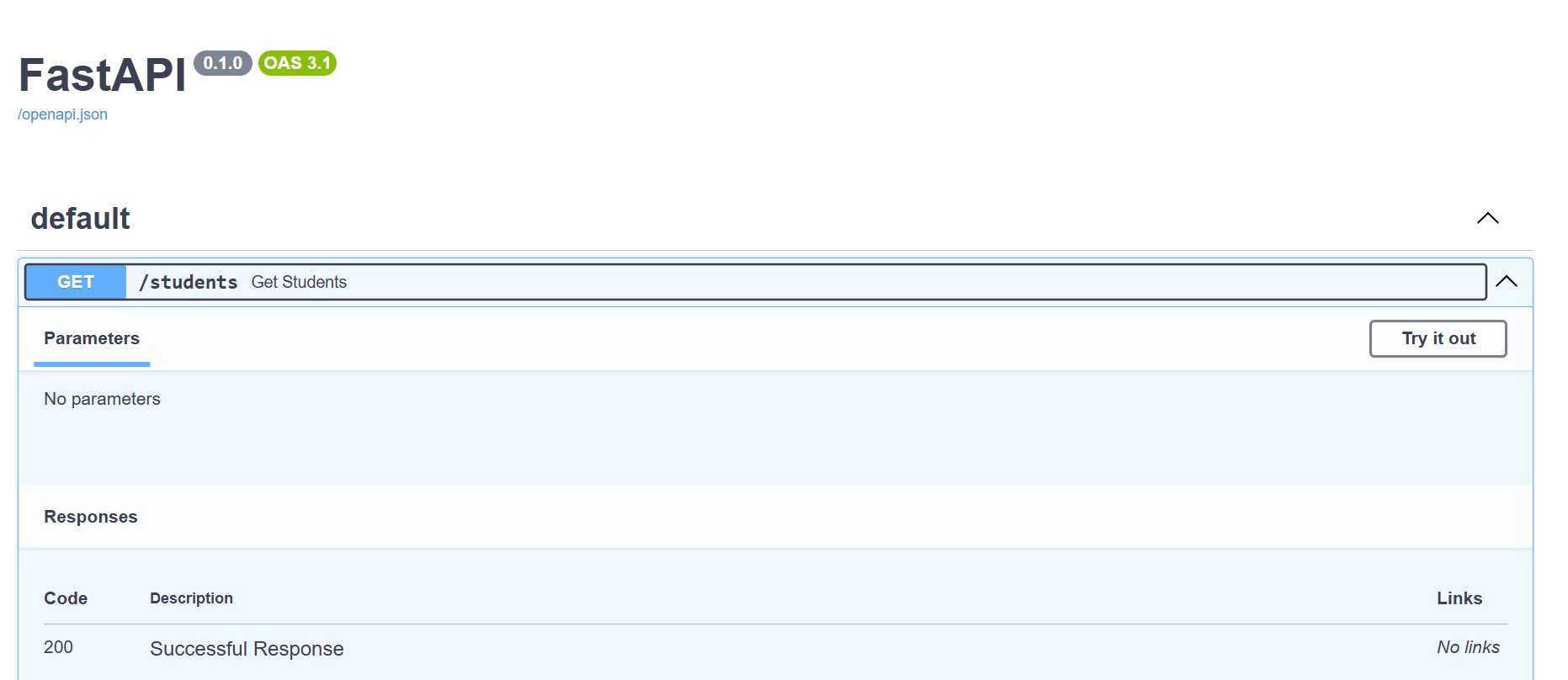
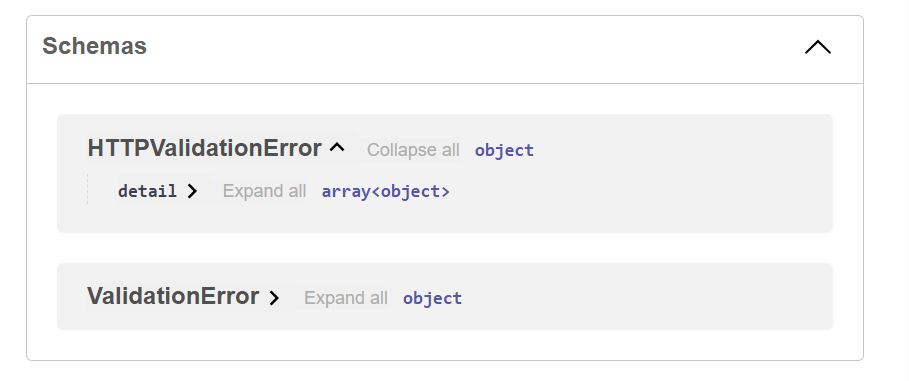
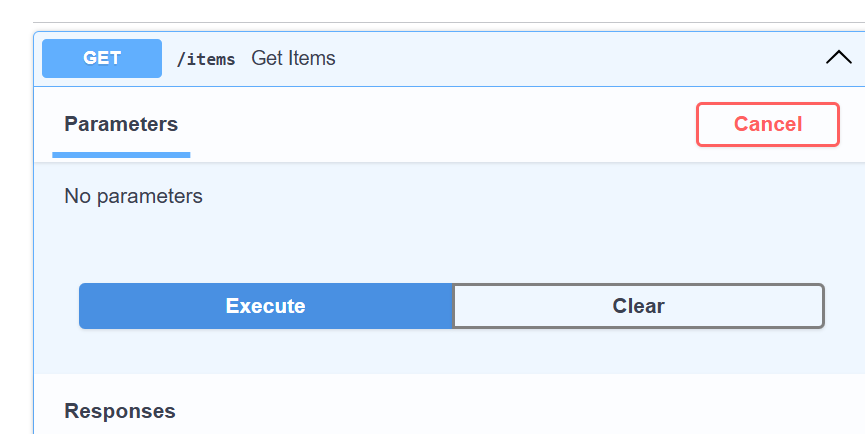
**for index, student in enumerate(students):**

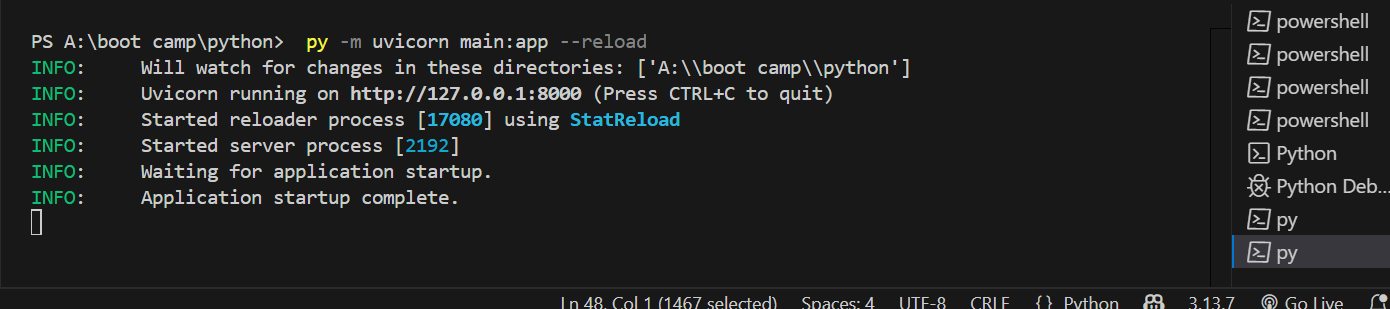
**if student.id == student\_id:**

**students.pop(index)**

**return {"message": f"Student {student\_id} deleted successfully"}**

**raise HTTPException(status\_code=404, detail="Student not found")**

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