

WS EXAMS PROJECT

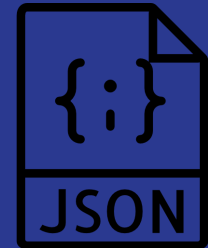
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Technologies

- Python (Server)
- Java (Clients)
- MySQL (Database)
- Flask-RESTful
- JSON



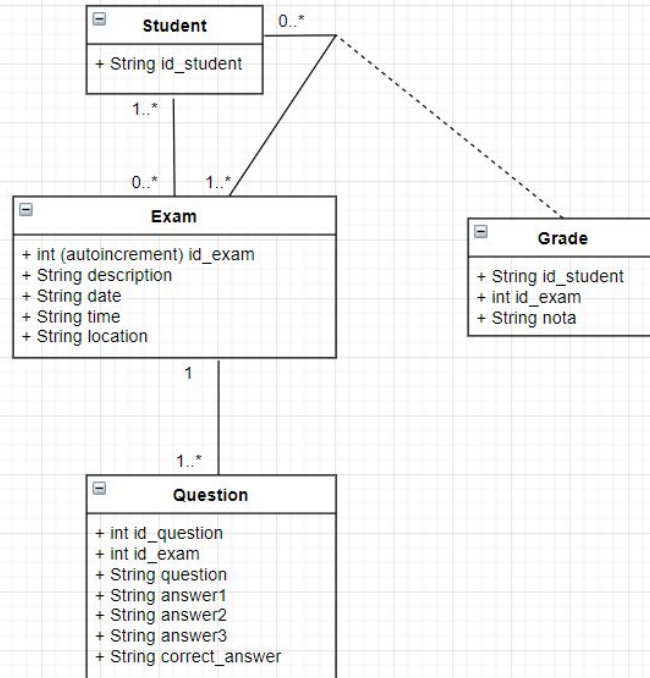
PYTHON



Classes

- Exam
- Question
- Grade
- Student

Database UML



EndPoints

EndPoints	Operations	resulting codes	Representations
/exams/	GET	HTTP/1.1 200	output: [{"id_exam": 1, "description": "e.g. Distributed Computing 1", "date": "01/01/2021", "time": "120", "location": "Port:5000Host:http://127.0.0.1"}, {"id_exam": 2, "description": "e.g. Distributed Computing 2", "date": "01/01/2021", "time": "120", "location": "Port:5000Host:http://127.0.0.1"}]

EndPoints

EndPoints	Operations	resulting codes	Representations
/exams/	POST	HTTP/1.1 201	input: { "description": "e.g. Distributed Computing 1", "date": "01/01/2021", "time": "120", "location": "Port:5000Host:http://127.0.0.1" } output: { "id_exam": 2, "description": "e.g. Distributed Computing 2", "date": "01/01/2021", "time": "120", "location": "Port:5000Host:http://127.0.0.1" } }

EndPoints

EndPoints	Operations	resulting codes	Representations
/exams/1	GET	HTTP/1.1 200	input: <String:id_exam> output: [{"id_exam": 1, "description": "e.g. Distributed Computing 1", "date": "01/01/2021", "time": "120", "location": "Port:5000Host:http://127.0.0.1"}]

EndPoints

EndPoints	Operations	resulting codes	Representations
/exams/1	POST	HTTP/1.1 200	input: <String:id_exam> { "description": "Modified Exam" } output: "1 record updated"

EndPoints

EndPoints	Operations	resulting codes	Representations
/question/1	POST	HTTP/1.1 201	input: <String:id_exam> { "id_exam": 1, "question": "34+1", "answer1": "35", "answer2": "10", "answer3": "20", "correct_answer": "1" } output: "1 record inserted"

EndPoints

EndPoints	Operations	Resulting codes	Representations
/examsdesc/ied_Ex	DELETE	HTTP/1.1 201	input: <String:id_exam> output: [{"id_exam": 2, "description": "Modified Exam", "date": "01/01/2021", "time": "120", "location": "Port:5000Host:http://127.0.0.1"}]

EndPoints

EndPoints	Operations	Resulting codes	Representations
/examslast/ied_Ex	DELETE	HTTP/1.1 201	input: <String:id_exam> output: [{"id_exam": 2, "description": "Modified Exam", "date": "01/01/2021", "time": "120", "location": "Port:5000Host:http://127.0.0.1"}]

EndPoints

EndPoints	Operations	resulting codes	Representations
/grades/2	POST	HTTP/1.1 201	input: <String:id_exam> { "id_student": "ggq2", "nota": "2/3" } output: "1 record inserted"

EndPoints

EndPoints	Operations	resulting codes	Representations
/students/ggq2	GET	HTTP/1.1 201	input: <String:id_exam> output: [{"id_student": "ggq2"}]

EndPoints

EndPoints	Operations	resulting codes	Representations
/students/ggq2	POST	HTTP/1.1 201	input: <String:id_exam> output: "1 record inserted"

EndPoints

EndPoints	Operations	resulting codes	Representations
/students/ggq2	DELETE	HTTP/1.1 201	input: <String:id_exam> output: "1 record(s) deleted"

Tracing

Create an exam

sydrex@kali: ~/universidad/dist_comp/prac2_final/Choise_exam_REST

Archivo Acciones Editar Vista Ayuda

```
sydrex@kali:~$ cd universidad/  
sydrex@kali:~/universidad$ cd dist_comp/  
sydrex@kali:~/universidad/dist_comp$ cd prac2_final/  
sydrex@kali:~/universidad/dist_comp/prac2_final$ cd Choise_exam_REST/  
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$ curl -H "Content-Type: application/json" -X POST  
-d '{"description": "e.g. Distributed Computing 1", "date": "01/01/2021", "time": "120", "location": "Port:5000Host  
:http://127.0.0.1"}' http://127.0.0.1:5000/exams/  
"1 record inserted"  
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$
```


Tracing

Modify a exam description

```
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$ curl -H "Content-Type: application/json" -X POST  
-d '{"description": "Modified Exam"}' http://127.0.0.1:5000/exams/8  
"1 record updated"  
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$ curl http://127.0.0.1:5000/exams/8  
[{"id_exam": 8, "description": "Modified Exam", "date": "01/01/2021", "time": "120", "location": "Port:5000Host:ht  
tp://127.0.0.1"}]  
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$
```

Tracing

Search by full description

```
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$ curl http://127.0.0.1:5000/examsdesc/Modified_Exam
[{"id_exam": 8, "description": "Modified Exam", "date": "01/01/2021", "time": "120", "location": "Port:5000Host:ht
tp://127.0.0.1"}]
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$ █
```

Tracing

Delete an exam

```
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$ curl -X DELETE http://127.0.0.1:5000/exams/8  
"1 record(s) deleted"  
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$
```

Tracing

List all exams

```
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$ curl http://127.0.0.1:5000/exams/  
[{"id_exam": 4, "description": "examen", "date": "01/01/2021", "time": "120", "location": "UdL"}, {"id_exam": 5, "  
description": "description5", "date": "01/01/2021", "time": "120", "location": "UdL"}, {"id_exam": 7, "description  
": "e.g. Distributed Computing 1", "date": "01/01/2021", "time": "120", "location": "Port:5000Host:http://127.0.0.  
1"}, {"id_exam": 9, "description": "examTest", "date": "01/01/2021", "time": "120", "location": "Port:5000Host:htt  
p://127.0.0.1"}, {"id_exam": 10, "description": "exam4", "date": "01/01/2021", "time": "120", "location": "Port:50  
00Host:http://127.0.0.1"}]  
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$ █
```

Tracing

Create an student

```
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$ curl -X POST http://127.0.0.1:5000/students/alp4  
"1 record inserted"
```

Upload grades

```
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$ curl -H "Content-Type: application/json" -X POST  
-d '{"id_student": "alp4", "nota": "2/3"}' http://127.0.0.1:5000/grades/7  
"1 record inserted"
```

Tracing

Try to delete exam with grades

```
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$ curl -X DELETE http://127.0.0.1:5000/exams/7
"Error:This exam have grades"
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$ curl -X DELETE http://127.0.0.1:5000/grades/7
"2 record(s) deleted"
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$ curl http://127.0.0.1:5000/exams/7
[{"id_exam": 7, "description": "e.g. Distributed Computing 1", "date": "01/01/2021", "time": "120", "location": "Port:5000Host:http://127.0.0.1"}]
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$ curl -X DELETE http://127.0.0.1:5000/exams/7
"1 record(s) deleted"
```

Tracing

Search an exam by its partial description

```
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$ curl http://127.0.0.1:5000/examsdesc/amT  
[{"id_exam": 9, "description": "examTest", "date": "01/01/2021", "time": "120", "location": "Port:5000Host:http://  
127.0.0.1"}]  
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$
```

Tracing

Show grades

```
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$ curl http://127.0.0.1:5000/grades/9  
[{"id_student": "ggq2", "id_exam": 9, "nota": "3/3"}]  
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$ █
```

Check some ID from an existent student

```
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$ curl http://127.0.0.1:5000/students/ggq2  
[{"id_student": "ggq2"}]  
sydrex@kali:~/universidad/dist_comp/prac2_final/Choise_exam_REST$ █
```


Dedication time

The estimated dedication time to this project are around 50 hours.

Github

https://github.com/Gengigq96/Choise_exam_REST