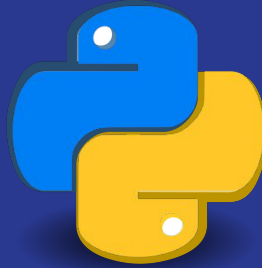


# WS EXAMS PROJECT

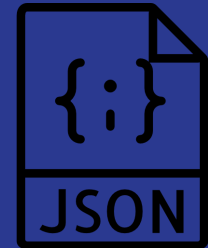
Genís Graus Qui  
Adrián Lorenzo Plaza

# Technologies

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



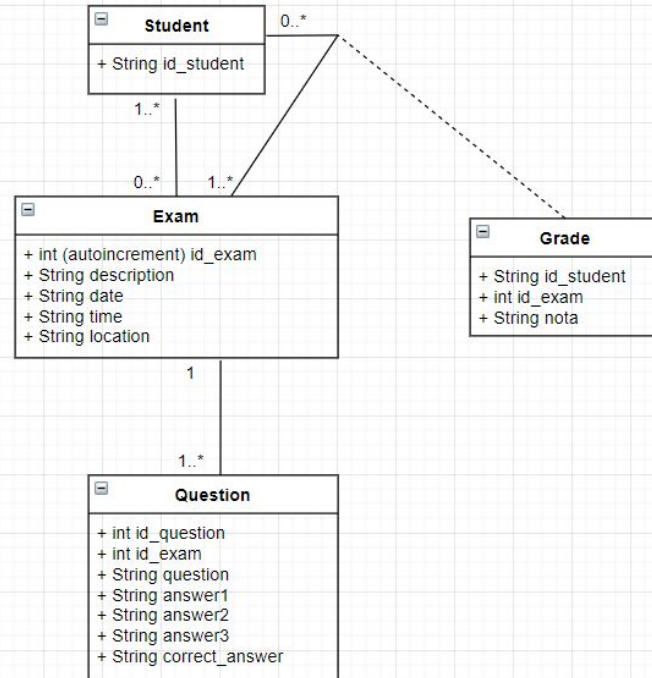
PYTHON



# Classes

- Exam
- Question
- Grade
- Student

# Database UML



# EndPoints

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



# EndPoints

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

# EndPoints

EndPoints	Operations	Resulting codes	Representations
/examsdesc/ied_Ex	GET	HTTP/1.1 200	<b>input:</b> <String:txtSearch> <b>output:</b> [{"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	GET	HTTP/1.1 200	<b>input:</b> <String:txtSearch> <b>output:</b> [{"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	<b>input:</b> <String:id_exam> { "id_student": "ggq2", "nota": "2/3" } <b>output:</b> "1 record inserted"

# EndPoints

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

# EndPoints

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

# EndPoints

EndPoints	Operations	resulting codes	Representations
/students/ggq2	DELETE	HTTP/1.1 201	<b>input:</b> <String:id_exam> <b>output:</b> "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:http://127.0.0.1"}, {"id_exam": 10, "description": "exam4", "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

## 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](https://github.com/Gengigq96/Choise_exam_REST)