

GUÍA DE ACTIVIDAD PRÁCTICA Y/O LABORATORIO

Curso:	ITI-523 – Tecnologías y Sistemas Web II	Profesor:	Jorge Ruiz (york)
Puntos por Ganar:	65	Fecha:	02/Diciembre/2023
Puntos Obtenidos:	0	Porcentaje:	10%
		Nota:	0

- **Goals of activity.**

- Evaluate the student's individual knowledge regarding the implementation of microservices with PHP language and validation against Postman as an API-Restful client.

- **Test Instructions.**

Third Partial Test:

General remarks:

- In the course space into the Virtual Campus, exists a segment called “**Entorno de Trabajo**”, review it and carefully take any instructions, for your computer to work properly with git commands and GitLab remote repository.
- Carefully read each instruction of the project, if you have doubts, please use the course chat in Moodle platform or Microsoft Teams chat, to communicate it at your professor.
- At the end of the test, you must submit a .zip file

Process required.

You will develop a small program based on the logic of an API-Restful, just as you have been developing it in classes together with your teacher, as indicated by the objective of the test, you must use:

- PHP Language version 8.0.x or below
- Postman as REST-Client tools

The API or microservice that is requested has the following functions:

Get student data

Method: GET

URI : <http://10.236.2.142/exa3/index.php/estudiante>

Body : {}

Retrieve student data:

```
{
  "datos": {
    "estudiante": {
      "apellidos": "Ruiz Fernandez",
      "celular": 85428918,
      "email": "jrui@utn.ac.cr",
      "id": 602310557,
      "nivel": "Master",
      "nombre": "Jorge Felix"
    },
    "status": 200,
    "status_message": "OK"
  }
}
```

Insert new data

```
Method: POST
URI    : http://10.236.2.142/exa3/index.php/datos
Body   : {
        "a": 3,
        "b": 2,
        "c": 7,
        "d": 4
      }
```

This instruction returns:

```
{
  "resultado": {
    "datos": {
      "nValores": 4
    },
    "status": 201,
    "status_message": "Data created"
  }
}
```

Statistics

Method: GET
URI : <http://10.236.2.142/exa3/index.php/estadisticas>
Body : {}

This instruction returns:

```
{
  "resultado": {
    "datos": {
      "a": 3,
      "b": 2,
      "c": 7,
      "d": 4
    },
    "estadisticas": {
      "mayor": 7,
      "menor": 2,
      "nValores": 4,
      "promedio": 4.0,
      "suma": 16
    },
    "status": 200,
    "status_message": "OK"
  }
}
```

Get value square

Method: GET

URI : <http://10.236.2.142/exa3/index.php/elevar>

Body : {}

This process returns:

```
{
  "resultado": {
    "d_elevados": {
      "a": 9,
      "b": 4,
      "c": 49,
      "d": 16
    },
    "d_originales": {
      "a": 3,
      "b": 2,
      "c": 7,
      "d": 4
    },
    "status": 200,
    "status_message": "OK"
  }
}
```

Get power data from numeric value

Method: GET
URI : <http://10.236.2.142/exa3/index.php/elevar/3>
Body : {}

This process returns:

```
{
  "resultado": {
    "d_elevados": {
      "a": 27,
      "b": 8,
      "c": 343,
      "d": 64
    },
    "d_originales": {
      "a": 3,
      "b": 2,
      "c": 7,
      "d": 4
    },
    "status": 200,
    "status_message": "OK"
  }
}
```

Get the number of bytes required to store at the explicit type of data, (tinyint, smallint or int)

Method: GET
URI : <http://10.236.2.142/exa3/index.php/entero/2>
Body : {}

This process returns:

```
{
  "resultado": {
    "con_signo": "-32768 hasta 32767",
    "sin_signo": "0 hasta el 65535",
    "n_bits": 16
  },
  "status": 200,
  "status_message": "OK"
}
```

Review the Excel document that is attached to this test so that you can understand how the calculations of the values presented are carried out, I maximized up to a limit of 4 bytes

- **Test assessment.**

#	Process	Points
1	Get student data	3
2	Insert new data	10
3	Statistics	15
4	Get value square	10
5	Get power data from numeric values	12
6	Get capacity of any kind of MySQL integer data.	15