# CUSTOMIZING QGIS USING PYTHON PART I





# **Objective**

At the end of the Workshop, the participant will acquire the knowledge and the skills necessary to automate tasks and processes in the Open-Source Geographic Information System QGIS using the Python language.

# **Topics**

- 1. Knowing the console Python of QGIS
- 2. Introduction to PyQGIS
- 3. Programming with PyQGIS.
  - 3.1. Layers vector and layers raster
  - 3.2. Tools of Geoprocessing
  - 3.3. To access to the structure of the board of a shape
  - 3.4. Access to geometry
  - 3.5. Operations of Geometry with Predicates and Operations
  - 3.6. Connection to Bases of Data
- 4. Building a plugin of QGIS with Python

### Characteristics of the equipment of calculation required

To attend the workshop, it is necessary that each participant has a computer with internet access and the following minimum characteristics:

| RAM memory  | 8Gb   |
|-------------|---|
| Processor   | Intel i5 processor or equivalent                      |
| HDD         | 20GB free hard drive                                  |
| Browser     | Browser Latest versions of Chrome and Mozilla Firefox |
| Accessories | Headband with microphone, camera not necessary        |





# **Duration: 20 hours**

An effective workshop time of 20 hours has been considered. 10 sessions of 2 hours are recommended.

# Maximum group capacity

• 25 people.



### Schedule:

- Group 1: from 8:30 to 10:30, Mexico time.
  - Group 2: from 12:00 to 2:00 p.m., Mexico time.
  - September 23 to October 8,2024. 1st. October non-working day.
  - Last day for registration March 29,2024.

### **Pre-installed software**

- QGIS 3.28.6 LTR
- Microsoft Teams

## **Attendee Requirements**

- Knowledge basic of QGIS
- Knowledge basic in programming
- Concepts basic of mapping.



### **Contact:**

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