

# OPEN SOURCE GIS SERVER & INFRASTRUCTURE SETUP, SPATIAL DATABASE SETUP AND APPLICATION DEVELOPMENT API

## LEVEL 1

### LEARNING OBJECTIVES

This training is intended for anyone with basic development skills (HTML, JavaScript) who wishes to represent and distribute cartographic data.

At the end of the course, the trainees will be able to :

- Install and configure GeoServer
- Load and administer vector and raster data
- Set up webservice
- Administer a PostGIS spatial database
- Web distribute spatial data via Leaflet



#### PUBLIC

All



#### PREREQUISITES

Based on client IT web infrastructure



#### PÉDAGOGICAL INPUTS

Provision of a software license: yes

Educational support in digital format given to the trainee (with concrete examples and practical exercises)

Evaluation questionnaire and certificate at the end of the training



**DURATION** 5 days



**COST** On demand



#### TERMS AND CONDITIONS OF

#### ACCESS

No pre-requisite selection

Dates to be agreed upon



#### INSCRIPTIONS

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### CONTENT

#### DAY 1 & 2

##### SPATIAL DATABASE POSTGRESQL

Installation

Administration with pgAdmin 4 and QGIS DB Manager

Creation of spatial databases

Spatial indexing

Creation of basic queries

Notions of views and materialized views

Creation of optimized queries for web distribution

#### DAY 2 & 3

##### GEOSEVER

Installation of GeoServer

Creation of WMS and WFS streams

Displaying data in QGIS and Leaflet

Real time interaction QGIS / PostGIS / Leaflet

#### DAY 3 & 4

##### LEAFLET / APPLICATION DEVELOPMENT API

Presentation of Leaflet

Recall of JavaScript, HTML, CSS development (if necessary)

Discovery, use of jQuery

Download, install the Leaflet API

Creation of a simple map

#### DAY 4

##### ADD DATA FROM GEOSEVER

Displaying data on the Leaflet map

STYLES AND SYMBOLOGY

Set the appearance of vector data (colors, opacity, thickness)

Create markers on point layers

#### DAY 5

##### ATTRIBUTE DATA

Accessing the attributes of an entity

Display tooltips (on click or hover)

Open parameterized popups

Generate a label layer

