SEND YOUR HOMEWORK #2

HOMEWORK #2 – URBAN MAPPING EXERCISE

INSTRUCTIONS:

- TAKE A SHORT WALK (AGAIN) AROUND YOUR FAVORITE PLACE IN THE CITY.
- CHOOSE ONE ELEMENT TO BE MAPPED AS POINTS (E.G., TREES, BENCHES, CAFÉS, MURALS, ETC.).
- MAP AT LEAST 5 POINTS FOR THIS ELEMENT.
- RECORD 5 DIFFERENT ATTRIBUTES FOR YOUR POINTS (E.G., NAME, CONDITION, SIZE, COLOR, MATERIAL).
- BE CREATIVE AND THINK ABOUT HOW EVERYDAY URBAN ELEMENTS CAN TELL A SPATIAL STORY!
- UPLOAD YOUR WORK BELOW.
-

BE READY TO SHARE YOUR EXAMPLES IN THE NEXT CLASS. BE CREATIVE!

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SEND YOUR HOMEWORK #1

HOMEWORK #1:

1. BRING A CONCEPT OF GEOGRAPHICAL SPACE;

2. TAKE A SHORT WALK AT YOUR FAVORITE PLACE IN THE CITY AND TAKE A PHOTO OF THE LANDSCAPE. THINK OF 3 THINGS THAT COULD BE REPRESENTED IN GIS, ONE AS:
    - A POINT,
    - A LINE,
    - A POLYGON.

- BE READY TO SHARE YOUR EXAMPLES NEXT CLASS!

3. INSTALL QGIS IN YOUR LAPTOP (OPTIONAL);

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GIS - Geographical Information Systems

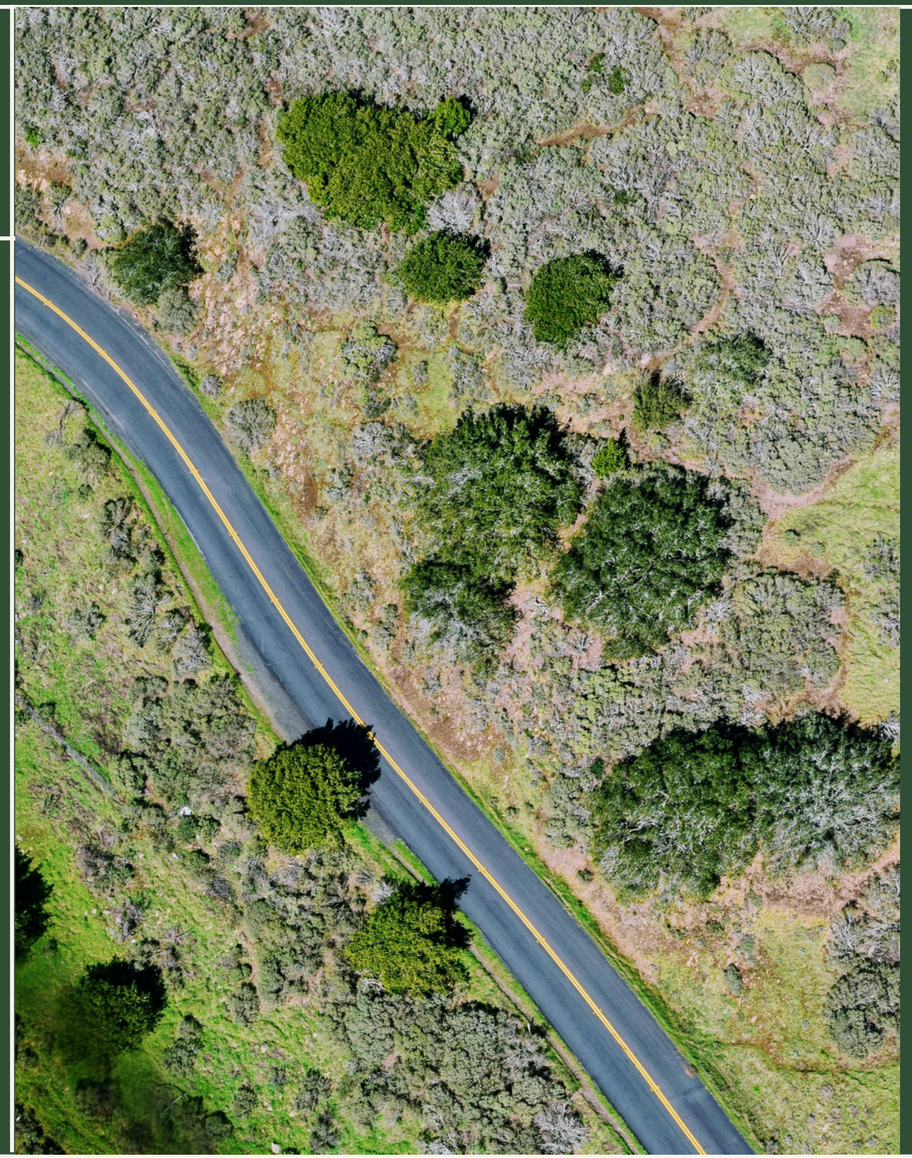
CLASS #2 - MAPPING POINTS IN THE SPACE

REGISTER SURROUNDING TREES

BUILD AN ATTRIBUTE TABLE FROM ZERO

COLLECT DATA TO THE ATTRIBUTE TABLE

CREATE A PONT LAYER IN QGIS



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MAPPING URBAN TREES

What data should we collect?

a) Identifier number
b) Latitude and Longitude
c) Species
d) Height (small/medium/ tall)
e) Condition (healthy/ damaged/ dead)
etc...

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MAPPING URBAN TREES

Data = Attribute

FIELD	TYPE	DESCRIPTION / NOTES	EXAMPLE VALUE
tree_id	Number	Unique identifier for each tree	1
latitude	Decimal	Latitude in decimal degrees	48
longitude	Decimal	Longitude in decimal degrees	8
name	Text	Tree’s name (if known)	Maple Tree
species	Text	Tree species or type	Acer platanoides
height	Text	Size class (Small / Medium / Tall)	Medium
colour	Text	Current leaf colour	Green
condition	Text	Health condition	Healthy
location	Text	Short description or reference	“Near the main entrance”

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MAPPING URBAN TREES

Attribute Table

TREE ID	LAT	LON	NAME	SPECIES	HEIGHT	COLOUR	CONDITION	LOCATION

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MAPPING URBAN TREES

Attribute Table

TREE ID	LAT	LON	NAME	SPECIES	HEIGHT	COLOUR	CONDITION	LOCATION

To remember:

Attributes are in COLLUMNS (FIELDS)

Trees are in LINES (REGISTERS)

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MAPPING URBAN TREES

Attribute Table

TREE ID	LAT	LON	NAME	SPECIES	HEIGHT	COLOUR	CONDITION	LOCATION

How can we get the data?

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MAPPING URBAN TREES

Attribute Table

TREE ID	LAT	LON	NAME	SPECIES	HEIGHT	COLOUR	CONDITION	LOCATION

How can we get the data?

Let’s map!

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MAPPING URBAN TREES

Attribute Table

TREE ID	LAT	LON	NAME	SPECIES	HEIGHT	COLOUR	CONDITION	LOCATION

Copy this Attibute Table in a papper sheet

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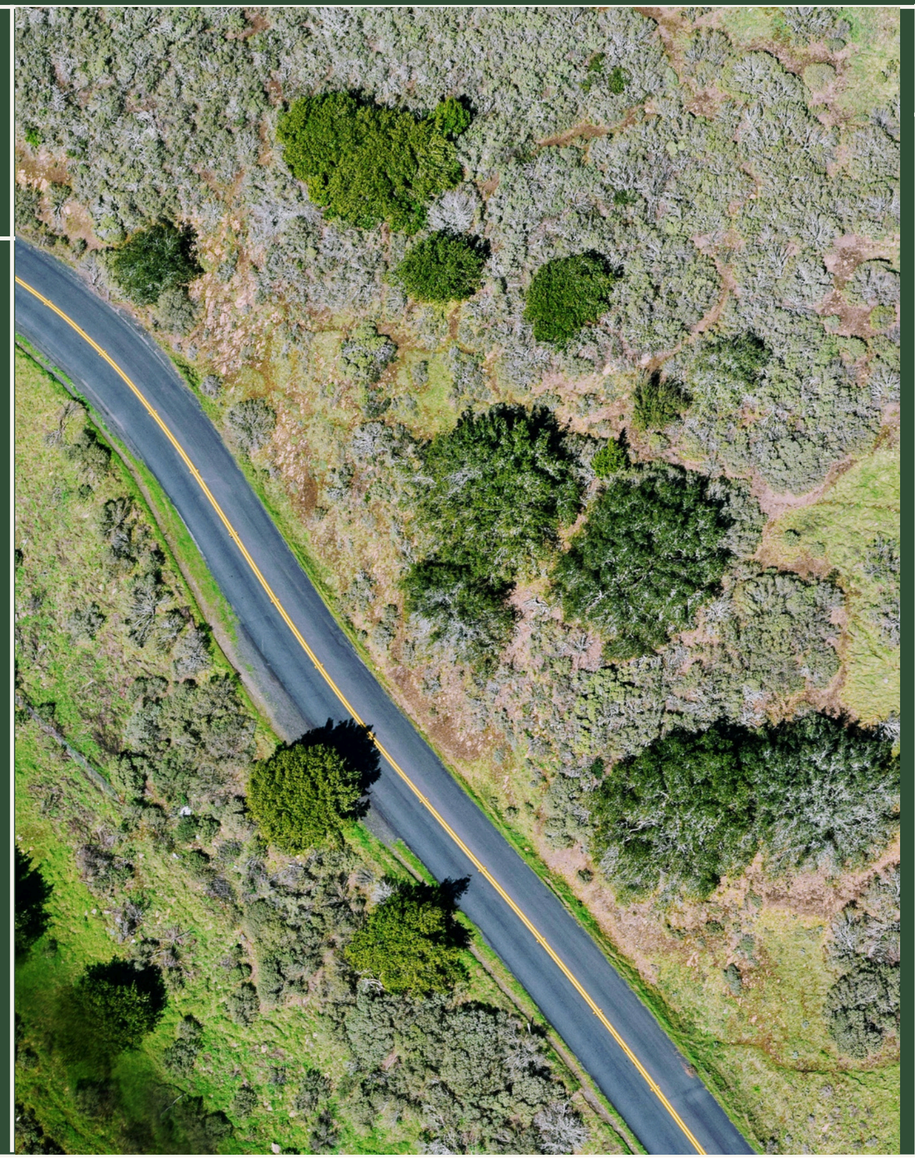
Mapping trees in QGIS

---

5 MAIN STEPS:

1. CREATE THE PROJECT'S FOLDER IN YOUR COMPUTER.
2. WRITE THE ATTRIBUTE TABLE AND SAVE AS CSV FILE.
3. IMPORT THE .CSV FILE IN QGIS.
4. SAVE THE TREES AS A SHAPEFILE (SHP).
5. ADD SATTELLITTE VIEW (BACKGROUND).



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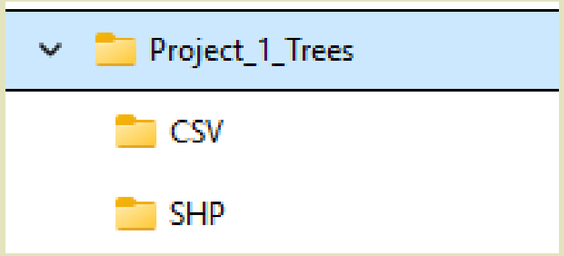
1. CREATE THE PROJECT'S FOLDER

Create a folder for your new map

Folder name: Project_1_Trees

Create 2 folders inside: CSV and SHP



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2. WRITE THE ATTRIBUTE TABLE AND SAVE AS CSV FILE

Trees.csv

Arquivo Editar Exibir

```
TREE_ID,LONGITUDE,LATITUDE,NAME,SPECIES,HEIGHT,COLOUR,CONDITION,LOCATION
```

(commas are collumns separator)

Ln 1, Col 73 | 72 caracteres | Texto sem forma | 100% | Windows (CRLF) | UTF-8 com BOM

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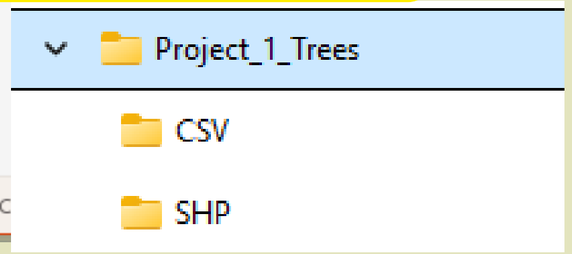
Trees.csv

Arquivo Editar Exibir

```
TREE_ID,LONGITUDE,LATITUDE,NAME,SPECIES,HEIGHT,COLOUR,CONDITION,LOCATION
```

(commas are collumns separator)

save as “Trees_Att_Table.csv” in CSV folder



Ln 1, Col 73 | 72 caracteres | Texto sem forma | 100% | Windows (C

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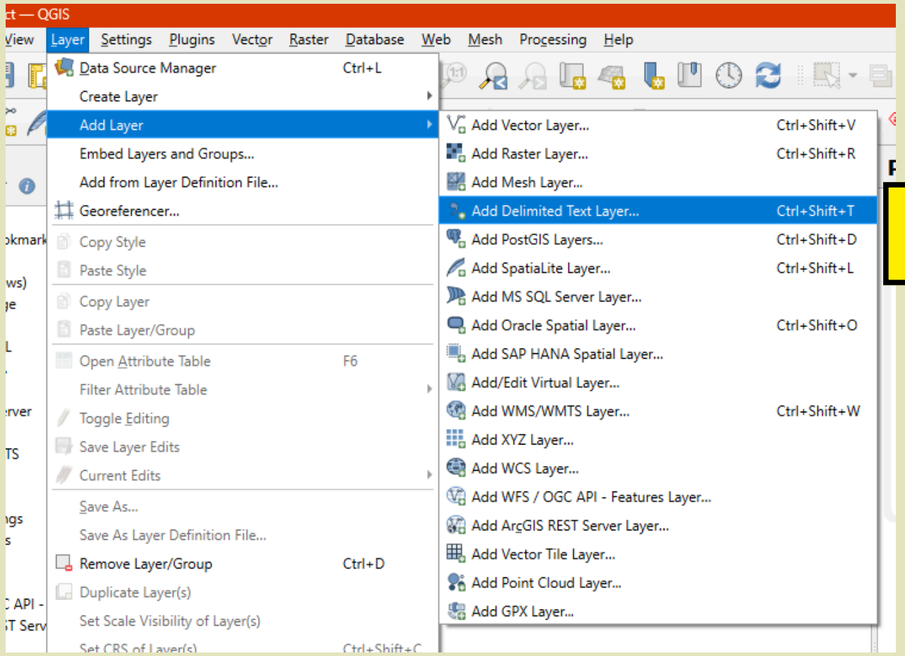
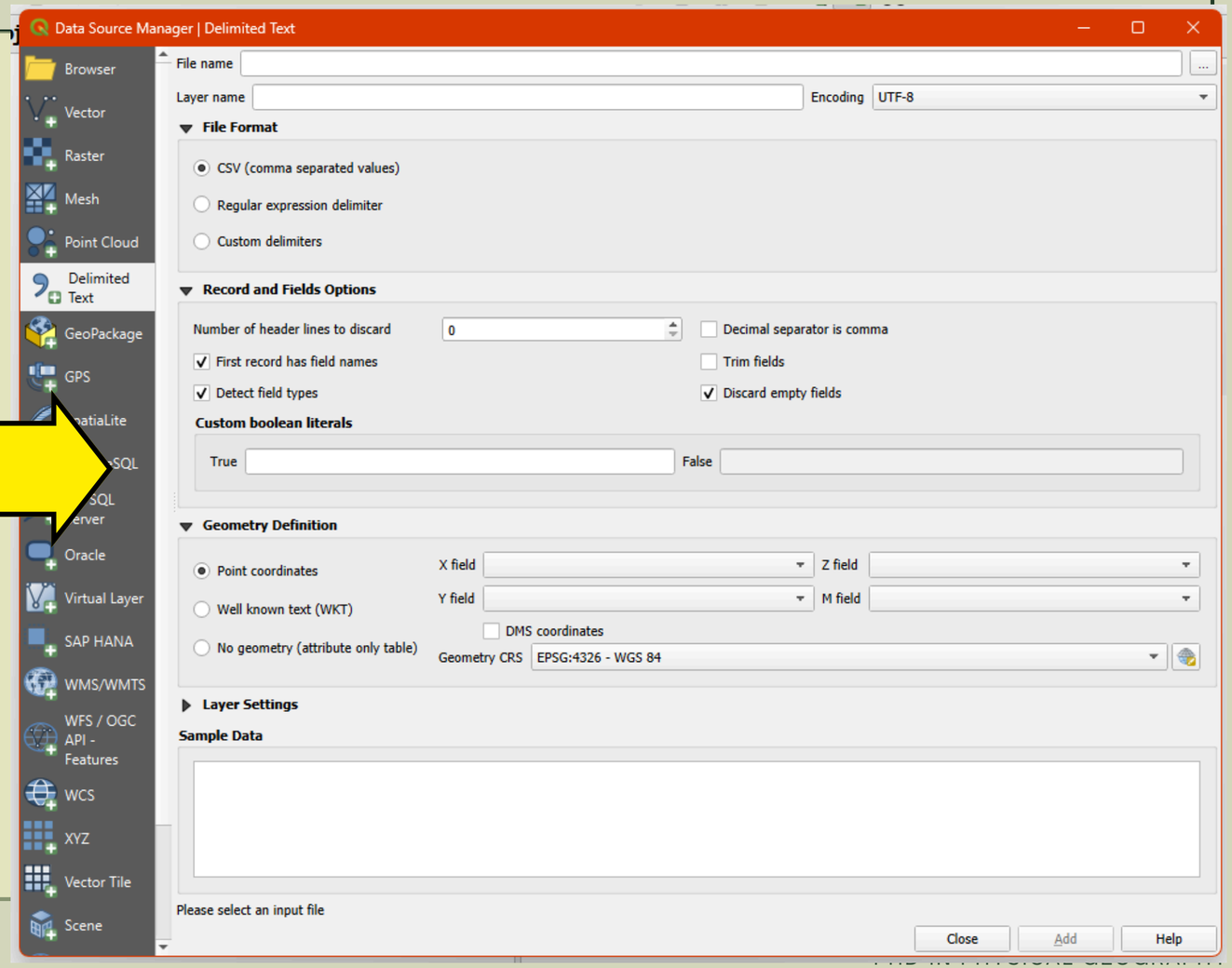
3. IMPORT THE ATTRIBUTE TABLE (CSV FILE) IN QGIS

Menu Layer >>> Add Layer >>> Add Delimited Text Layer





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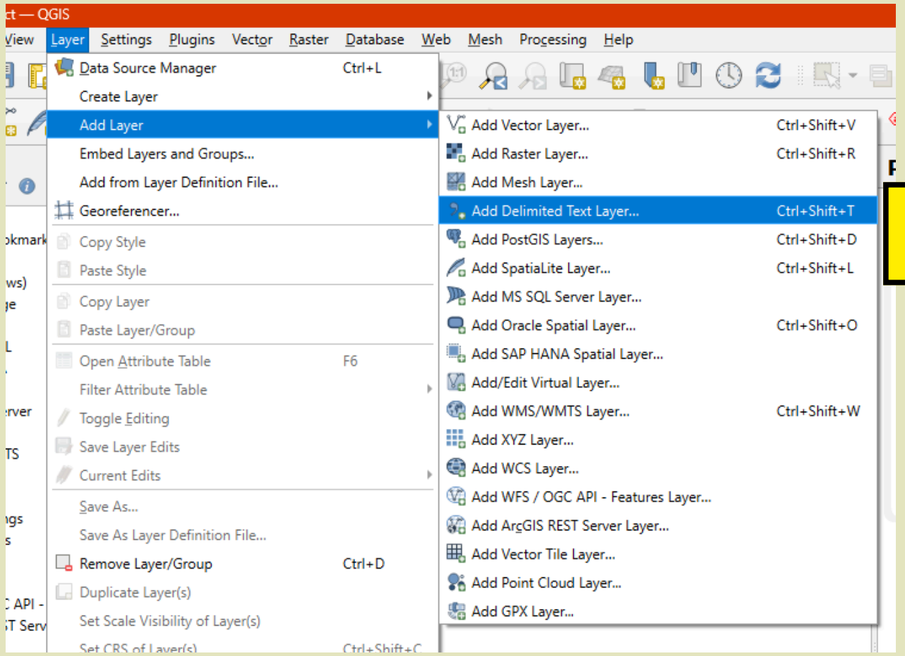
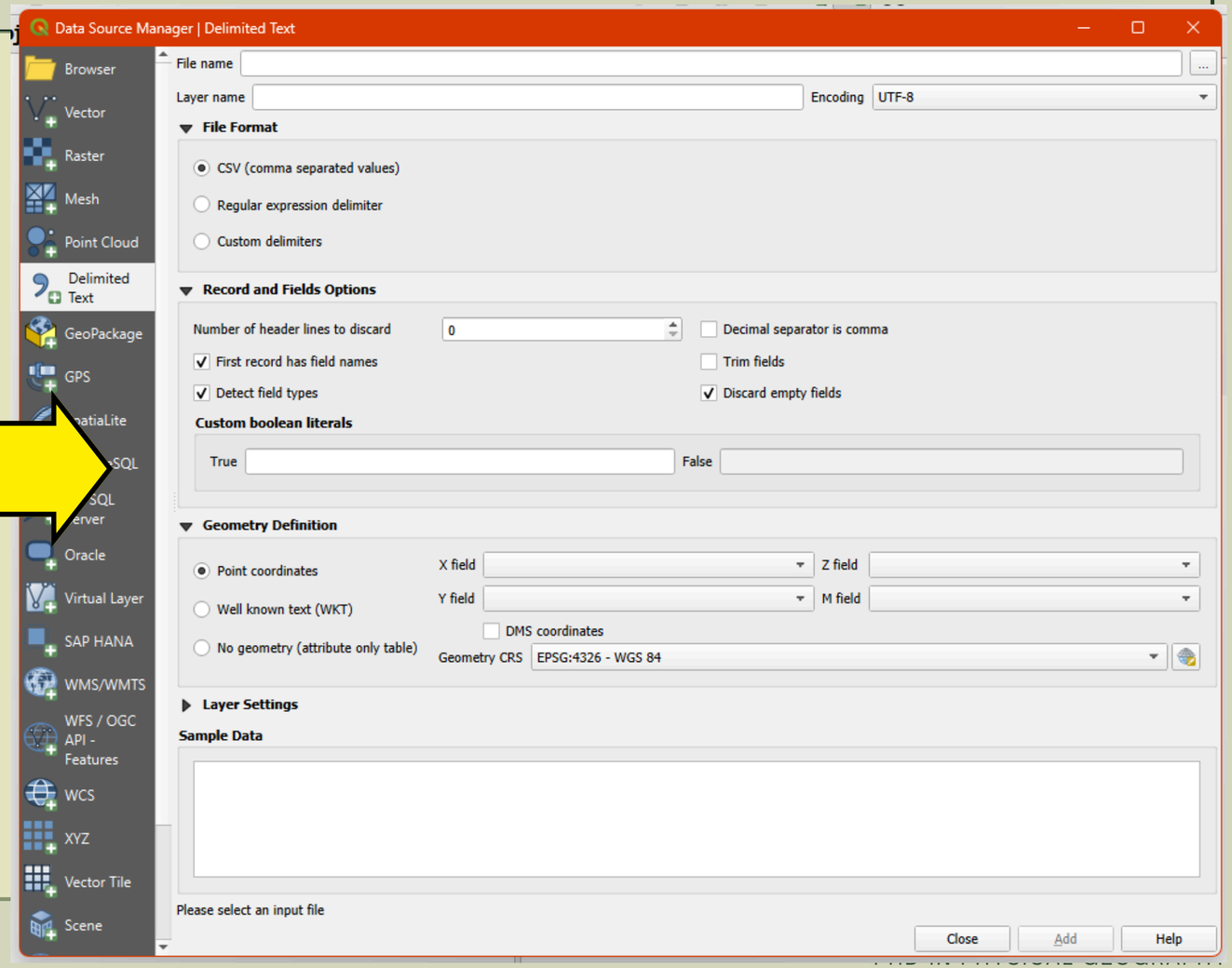
4. SAVE THE TREES AS A SHAPEFILE (SHP)

Menu Layer >>> Add Layer >>> Add Delimited Text Layer





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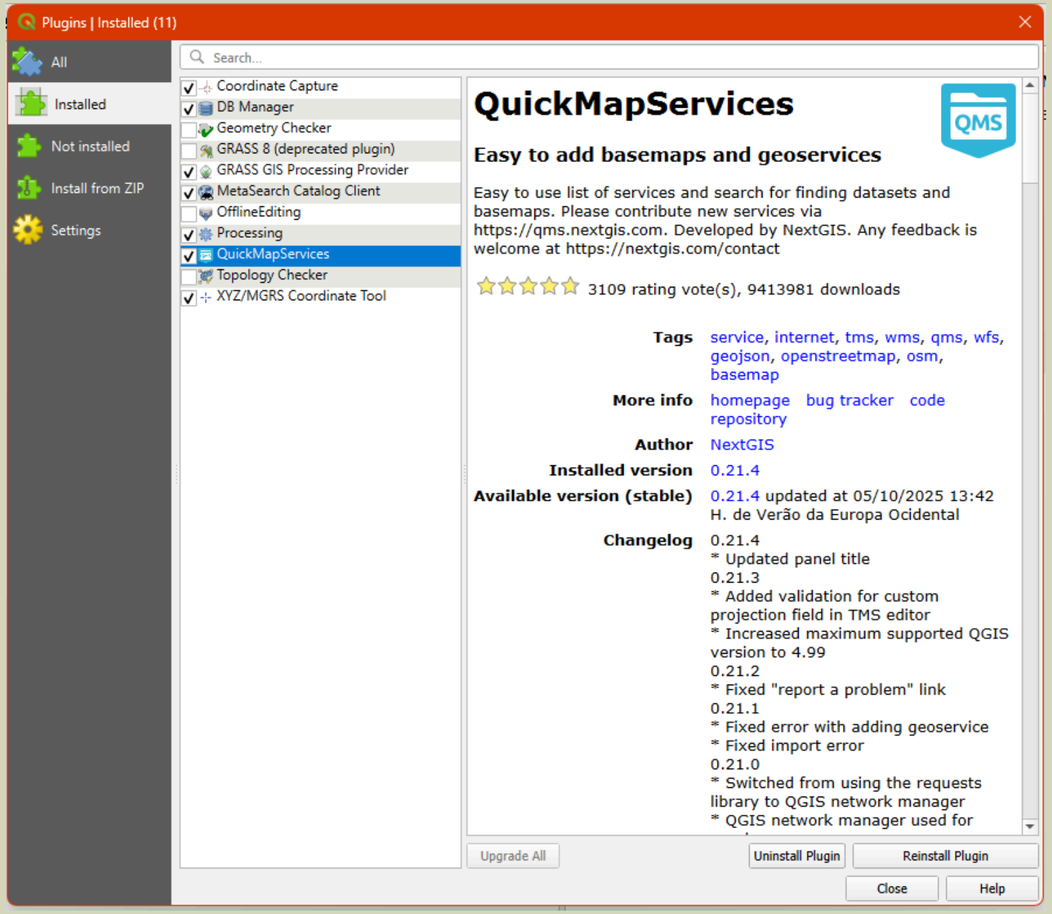
5. ADD SATTELLITTE VIEW (BACKGROUND)

Menu Plugins
>> Manage and install plugins

Install QuickMapServices



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5. ADD SATTELLITTE VIEW (BACKGROUND)

Menu Plugins

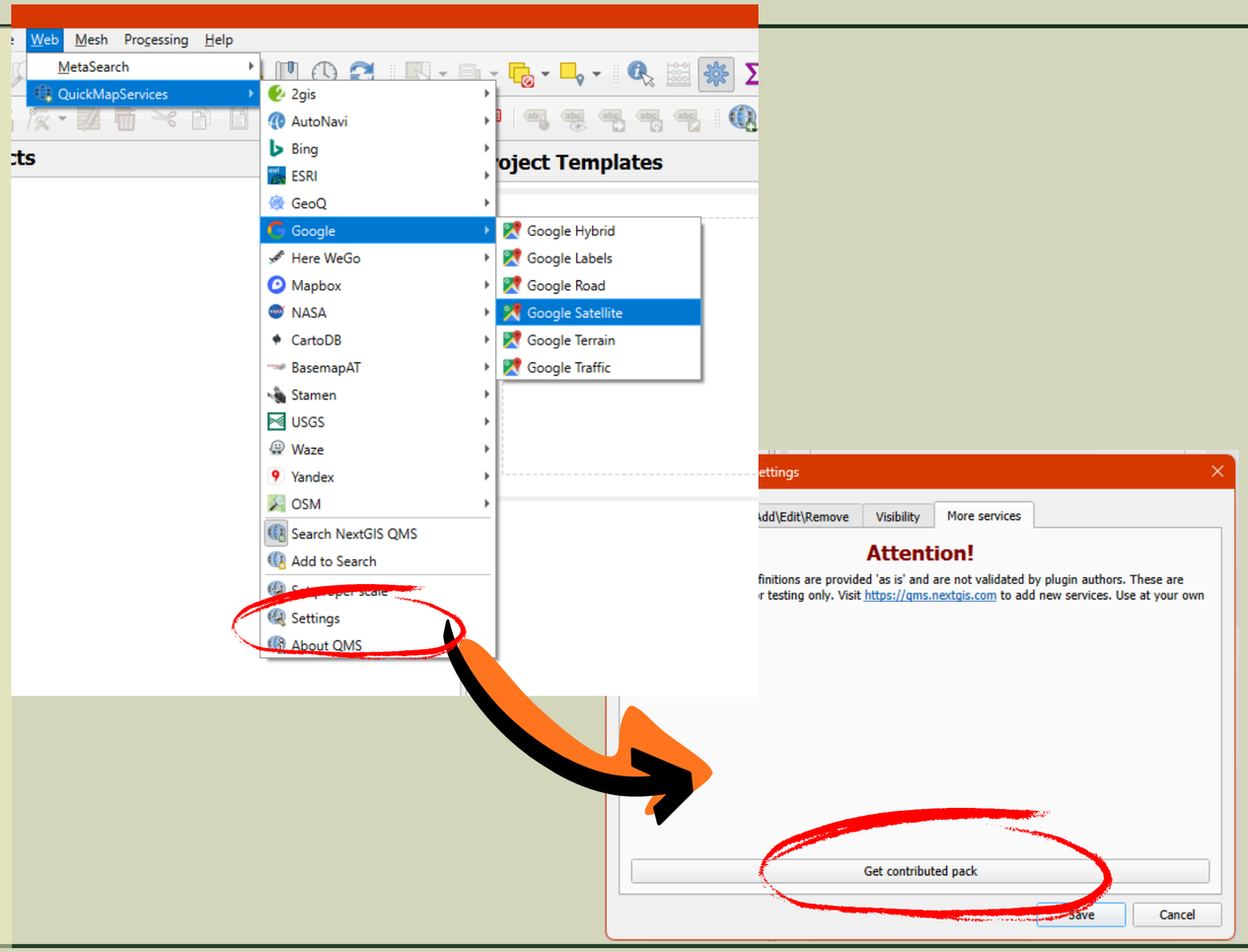
›› Manage and install plugins

Install QuickMapServices

Menu Web

›› Google

››› Google Sattellite



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Homework #2

DEADLINE: 20.10.2025

MAP POINTS FROM ELEMENTS OF YOUR FAVORITE SPOT IN THE CITY FOLLOWING THE STEPS PRESENTED TODAY.