Data Processing Using QGIS

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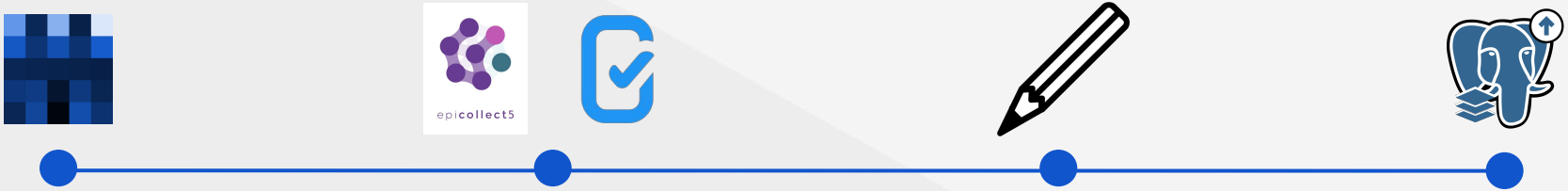
Introduction

Data Processing Workflow



Add Basemaps

Open Your Data

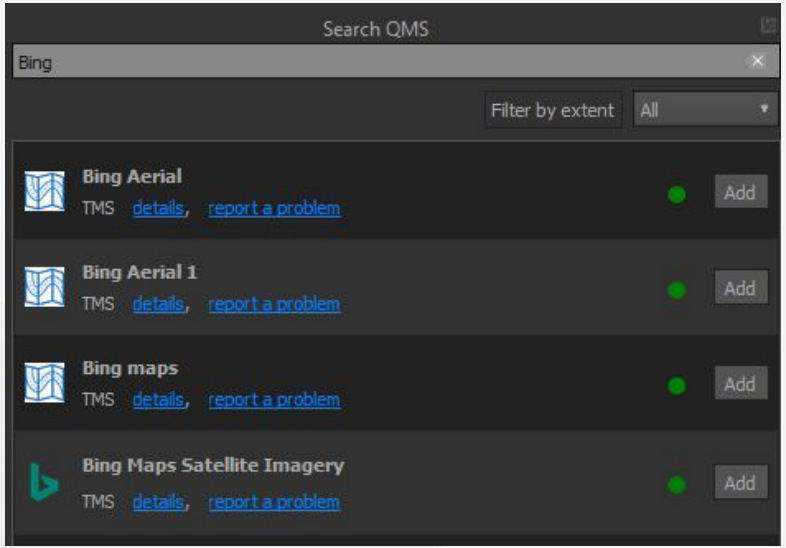
Spatial and Attribute Processing

Save to PostGIS

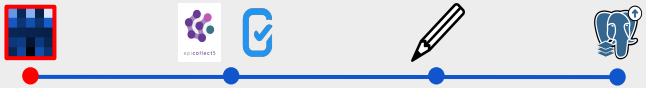
Add Basemaps

Add base maps in this term means adding satellite imagery data. It makes it easy to edit the geometry of the data to the truth position.

The QuickMapServices plugin is a simple and easy to use plugin that adds base maps to your QGIS project*

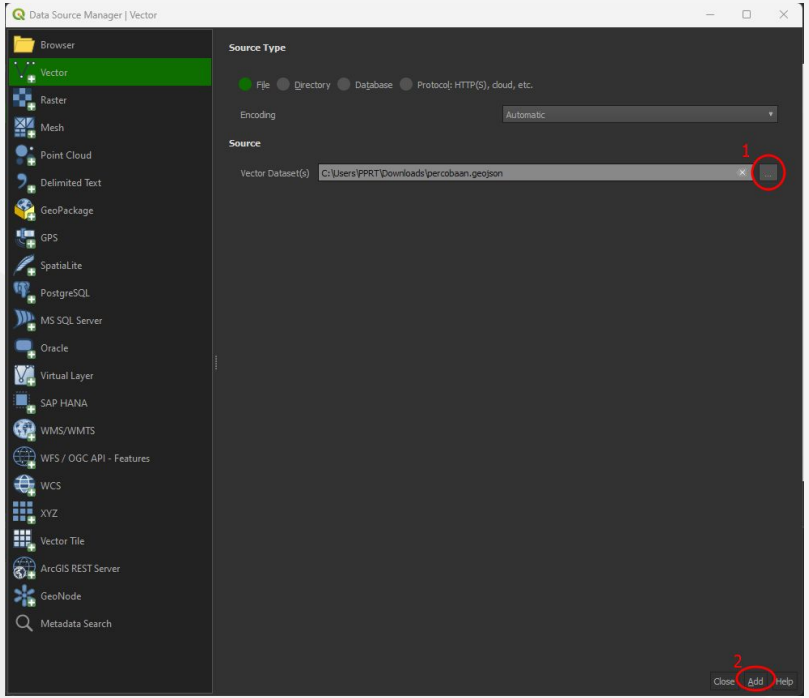


*https://docs.qgis.org/3.28/en/docs/training_manual/qgis_plugins/plugin_examples.html



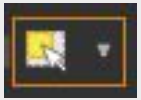
Open Your Data

Because data obtained from the field data needs to be processed to keep the data clean and don't forget to open your data. So, the data is ready to be saved to PostGIS

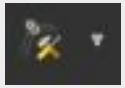


Spatial Processing

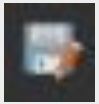
Start/stop editing



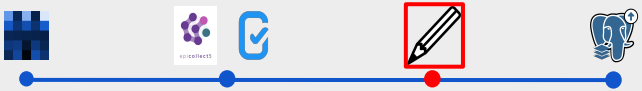
Select feature



Edit vertex



Save edits



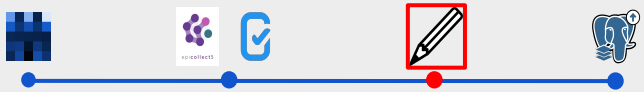
Attribute Processing

epicollect5

- survey_date
- ftype
- district

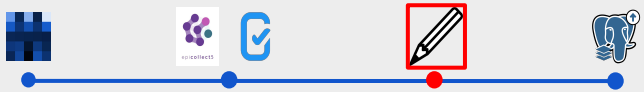
- photo_1
- lat
- long

- Missing field
- Must be check column values



Attribute Processing - Epicollect

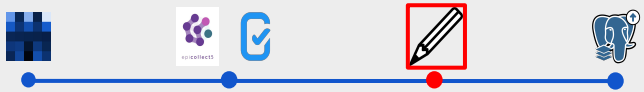
Fields	Missing Causes
survey_date	Epicollect would detect date values as text type, but we need date type, not as text. So we need to convert it to date type.
ftype	There are various ftype columns, like ftype_adm, ftype_adm, etc. We need just one ftype column has been filled, not all of various ftype columns.
district	There are various district columns, like district_gianyar, district_klungkung, etc. We need just one district column has been filled, not all of various district columns.



Attribute Processing - Kobotoolbox

Fields	Warning Causes
photo_1	This column values would fill a photo name only. We can't access the photo by name only. We need a URL of the photo.

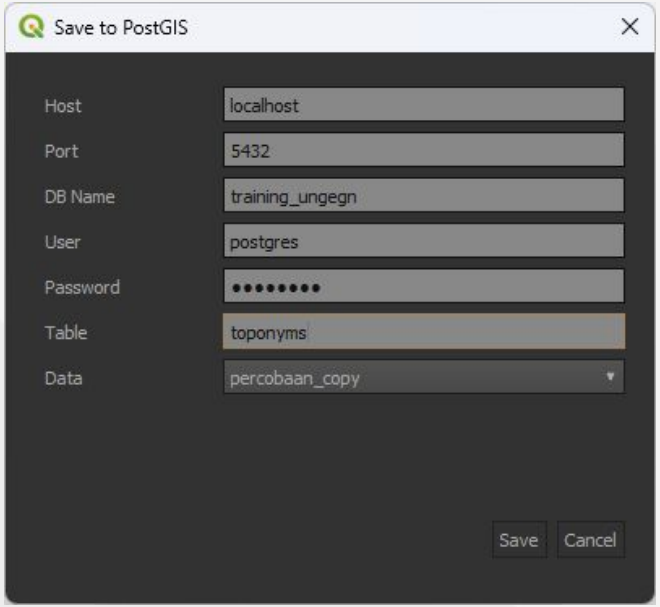
Fields	Missing Causes
lat	Although Kobotoolbox record a spatial data. It wouldn't record latitude number values. So we need to calculate it.
long	Although Kobotoolbox record a spatial data. It wouldn't record longitude number values. So we need to calculate it.



Save to PostGIS

Save to PostGIS useful to remember your data to the existing table.

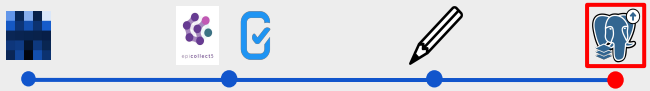
Fill the form based on your PostgreSQL authentication and toponyms database.



Save to PostGIS - Messages

Type of Messages	Example of Messages
Successful	`Success : Your data has been successfully saved in PostGIS!`
Info	`Info : The following optional columns are missing in the layer data : rec.`

Warnings	`Warning : The following mandatory columns are missing in the layer data : ftype, geom_type.`
	
	`Warning : Please check the following mandatory columns data type : ftype, survey_date. The data types are different with the database!`
	
	`Warning : Please check the following mandatory columns value : geom_type. There are NULL values!`



Let's practice!

“Data!data!data!” he cried impatiently. “I can't make bricks without clay.”

(Sherlock Holmes on The Adventure of the Copper Beeches, 1892. Written by Arthur Conan Doyle)

Source :
https://www.goodreads.com/quotes/286871-data-data-data-he-cried-impatiently-i-can-t-make-bricks-without-clay