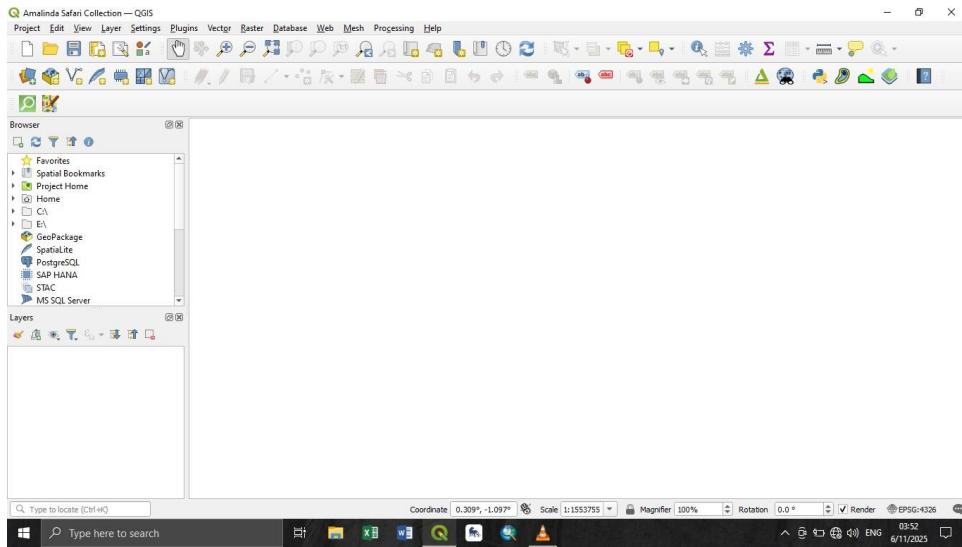


QGIS BASICS

A DETAILED GUIDE

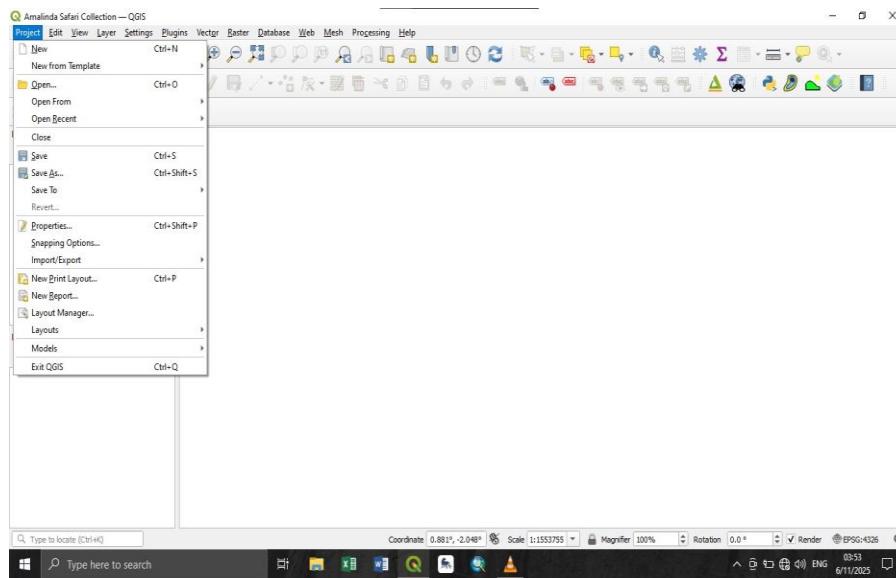
This guide will cover the basic GIS Interface and processes. Topics covered will include the GIS Interface, creating a project, adding spatial data (shapefiles/comma delimited files), creating spatial data (points, lines and polygons), and vector data analysis (basic).

The GIS interface



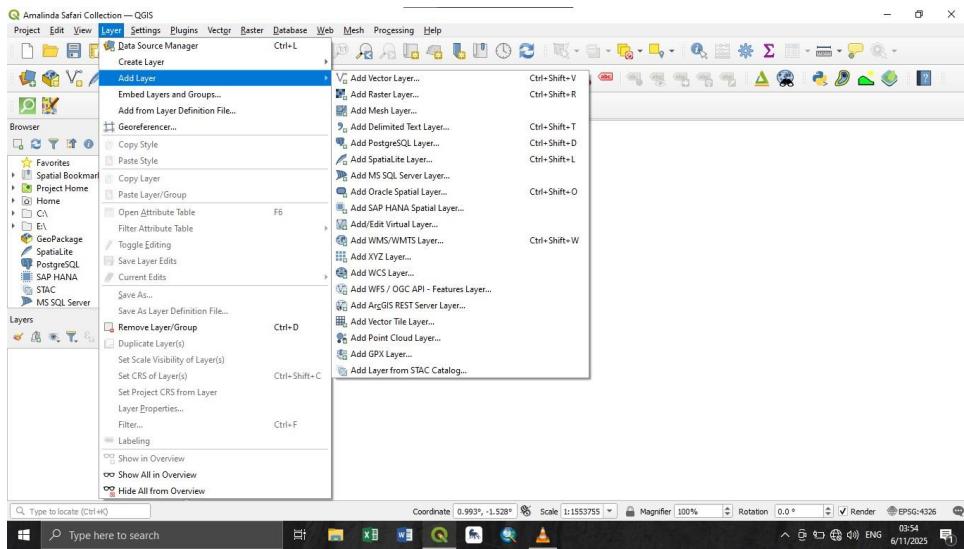
The interface is the same across all the different QGIS versions.

Creating a project



When creating or saving a project, you click on the top right corner button (project). **New** creates a new unnamed project, **Save/Save to** saves the current project to a specified folder.

Adding Spatial Layers



Adding shapefile layers

On the layers panel, go to add layer, click add vector layer, navigate to the folder where the desired shapefiles are located.

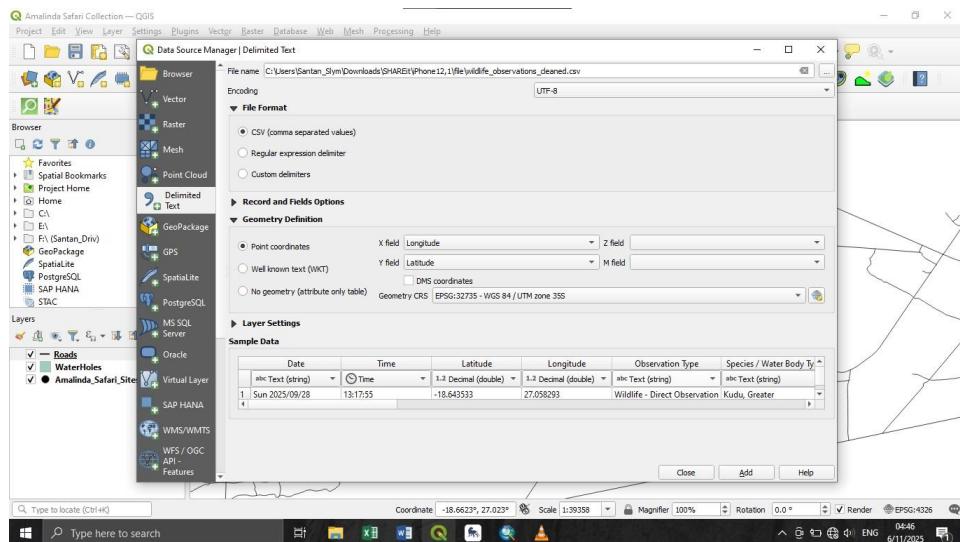
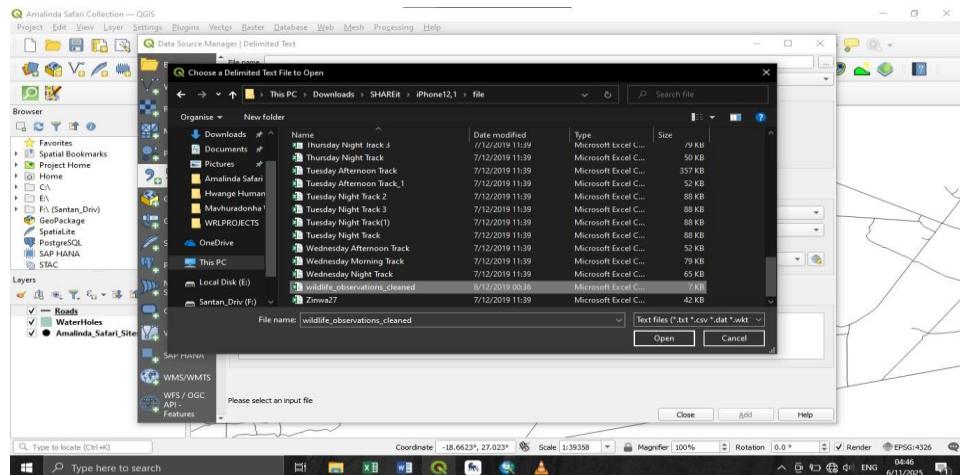
Click on the file with the .shp extension and click add. The data will be then added to the map and a coordinate reference system is automatically assigned. This can be done for any type of spatial data, points, lines or polygons.

Adding Comma Delimited Text Layers. (Excel files)

Comma Delimited Text Layers e.g. **excel.csv** files can be added to the project provided the data (point data) is in an excel file and contains recognizable coordinates (latitude-x and longitude-y).

On the layers panel, go to add layer, click add delimited text layer, navigate to the folder where the desired **excel.csv** file is located.

Click on the file with the .csv extension and click add. If your file has **latitude/x and longitude/y** headings, they are automatically assigned if they are different headings you have to manually assign the lat-long.



Creating Spatial Layers (points, lines & polygons)

Creating spatial layers can be done when you want to draw features without the shapefiles, it is the same as creating shapefiles.

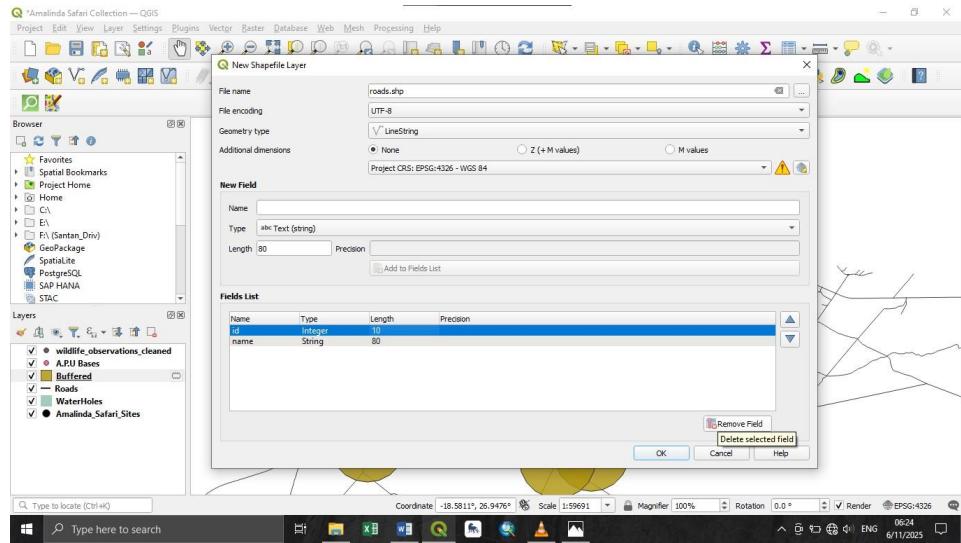
The 3 main spatial types are points (animal sightings, boreholes, trees etc.), lines (roads, rivers, tracks, power lines etc.), and polygons (area boundaries, structures, dams/lakes etc).

Creating Lines/Digitizing

When creating lines, or any shapefile type, go to layers tab and click on the create layer and navigate to new shapefile layer.

Enter the desired name of the shapefile and set the geometry type (point, line or polygon).

Add the name attribute to attribute table and remove the id attribute from the list.



Editing the shapefile/drawing

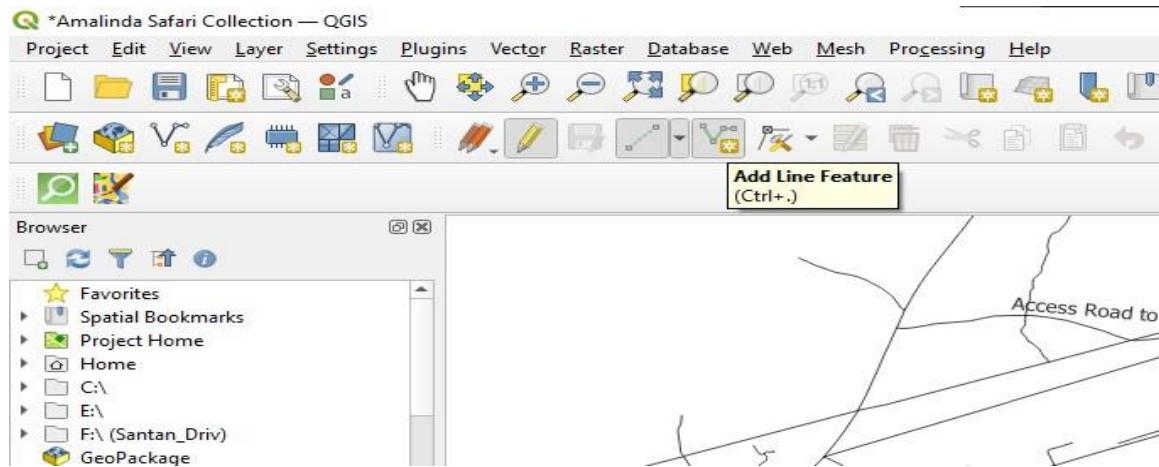
Click on the shapefile layer you wish to digitize then navigate to toggle edit button on the top panel



To add vertices in edit mode you navigate and click on the add line/feature button. Then start to add points/vertices on the map.

When done, right click to add the attribute to your feature (name, size, type etc.)

The process is the same for all geometry types.



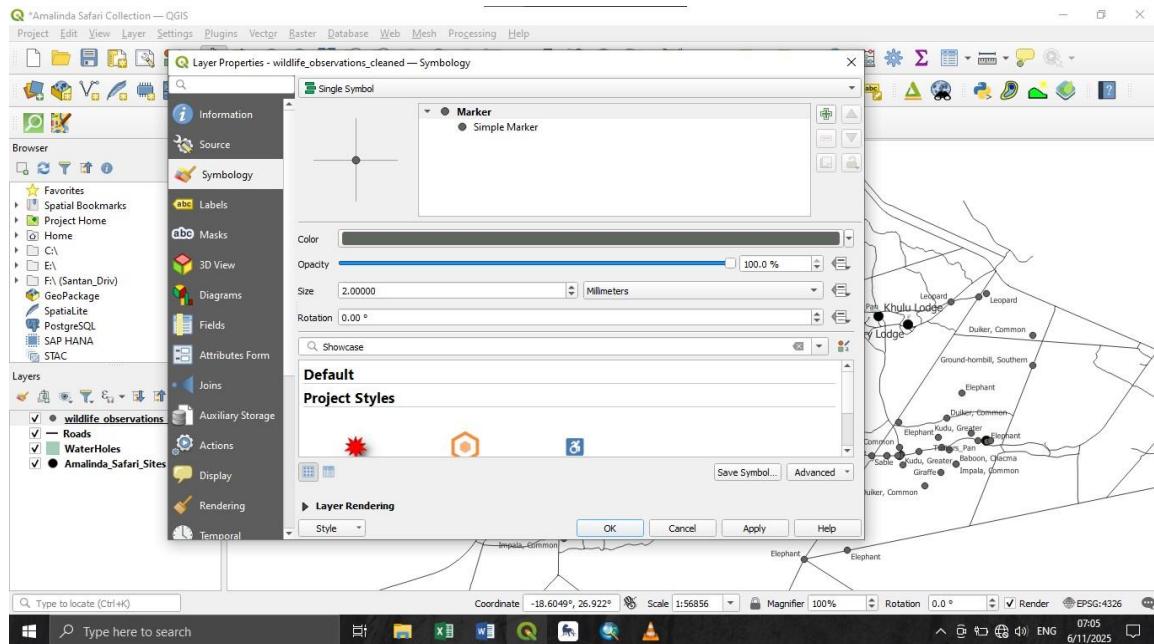
Don't forget to save your work as you go. Click **ctrl+s**

Editing symbology/appearance of features on the map.

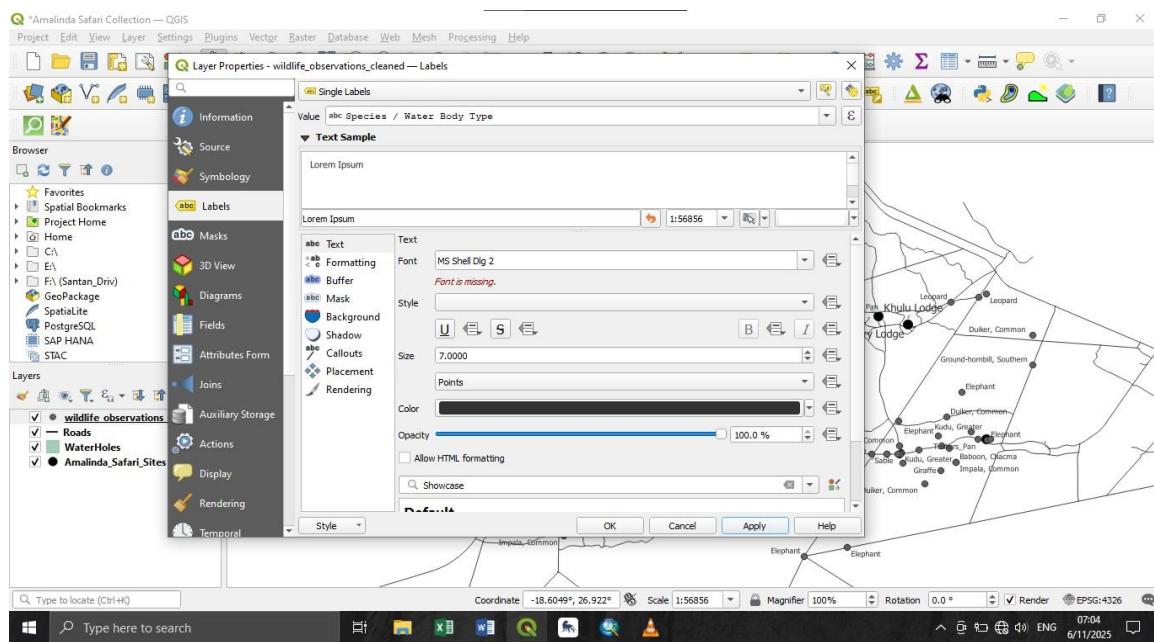
Right click on the layer you want to edit.

Go to properties, there you can edit either symbology or labels.

Symbology edits the graphical appearance of the features in edit (points, lines & polygons).



Labels edits the titles/labels of the data (points, lines & polygons) on the map.



I believe this is all for a basic GIS tutorial. Should any user of this document have any questions/queries, they can contact me on any platform for the shapefiles used in the tutorial, contact +263 77 658 6169, email; slym.shanya@students.uz.ac.zw, username slywekwajere.miah.

Disclaimer: Due to the sensitivity of wildlife across the Safari area, fictional wildlife distribution data was used for the project.

Let's get mapping!

