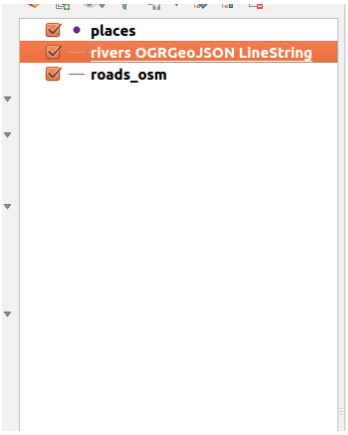
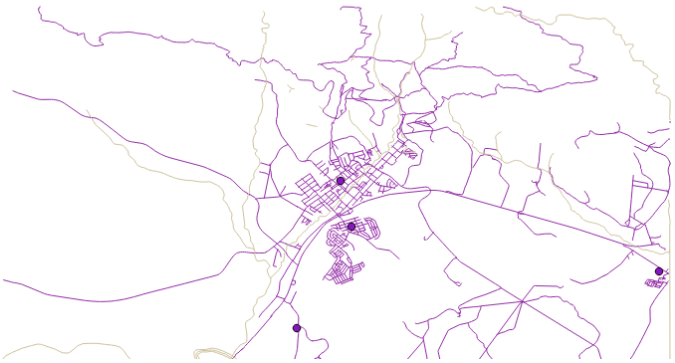
## Vector data formats in Context

"Vector data is a representation of the world using points lines and polygons. A GIS file is a standard way for encoding geographical data into a computer file."

In this module we will explore some of the vector formats that can be utilised in a GIS.



### You try:

***Goal:*** *To learn how to load various vector data formats in QGIS*

* Open a new project and load the specified layers from appendix3-local-data
* Click on add vector panel.
* Browse to path containing data and filter based on the type of data you want to load.
* Choose shapefile when loading roads_osm.
* Choose geojson when adding rivers_osm.
* Choose add delimited text layer and select places_osm.
* Select the appropriate column to use as x and y field.

| Name | Value |
|---|---|
| Layer | places_osm.csv, rivers_osm.geojson, roads_osm.shp |
| Panel | Add vector, QGIS browser, Delimited text Layer |
| | |

**Check your results:**
Once you have finished you should have all the layers added in QGIS all coming from various data formats

## More about

QGIS uses GDAL/OGR (http://www.gdal.org/) to read and write vector data. There are various data formats that GDAL/OGR supports. For a full list of data formats that QGIS supports read http://www.gdal.org/ogr/ogr_formats.html . Vector data can also be loaded in read mode from zip and gzip archives into QGIS.

## Check your knowledge:

1. **When loading a shapefile into QGIS what is the extension of the file that is generally loaded into QGIS:**

a) .shx
b) .prj
c) .shp
d) all of the above

2. **What happens when a user loads a file with a .dbf extension during loading a shapefile:**

a) QGIS will show an error message as the data type is not supported.
b) QGIS will render the layer as a non spatial layer.
c) QGIS will crash.

3. **Can you load a spreadsheet with latitude and longitude as a spatial layer in QGIS:**

- True
- False

Answers: 1c, 2b, 3t

## Further reading:

https://docs.qgis.org/2.14/en/docs/user_manual/working_with_vector/supported_data.html