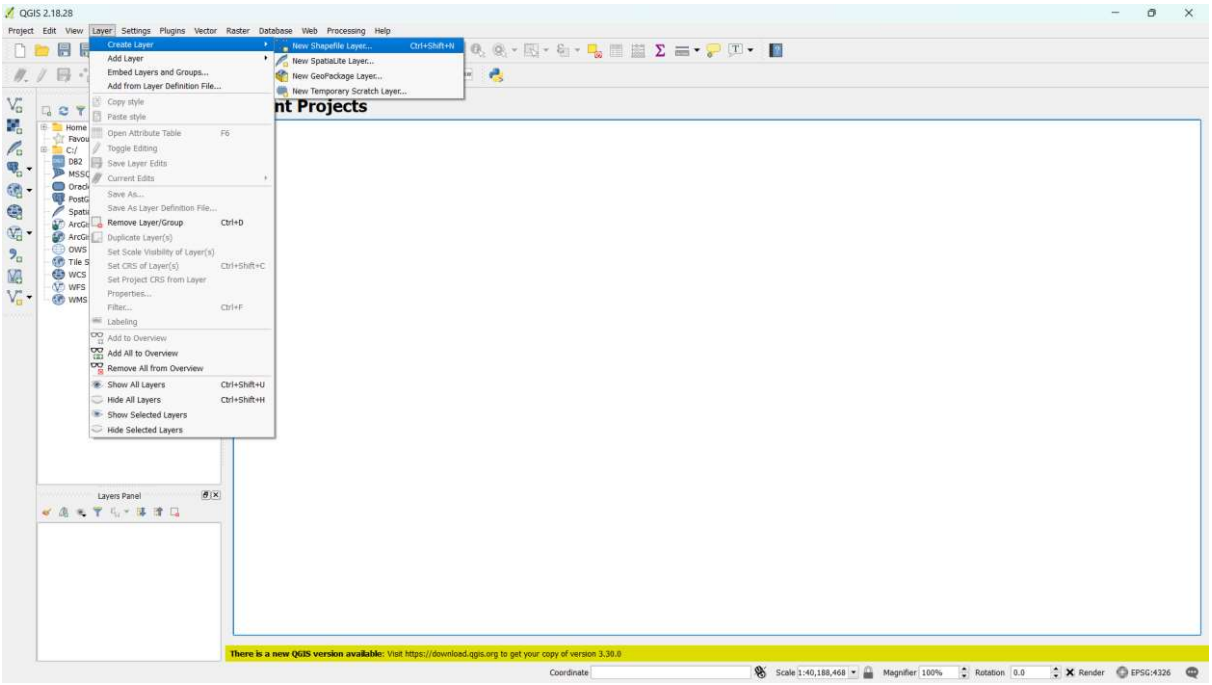
PRACTICAL – 1

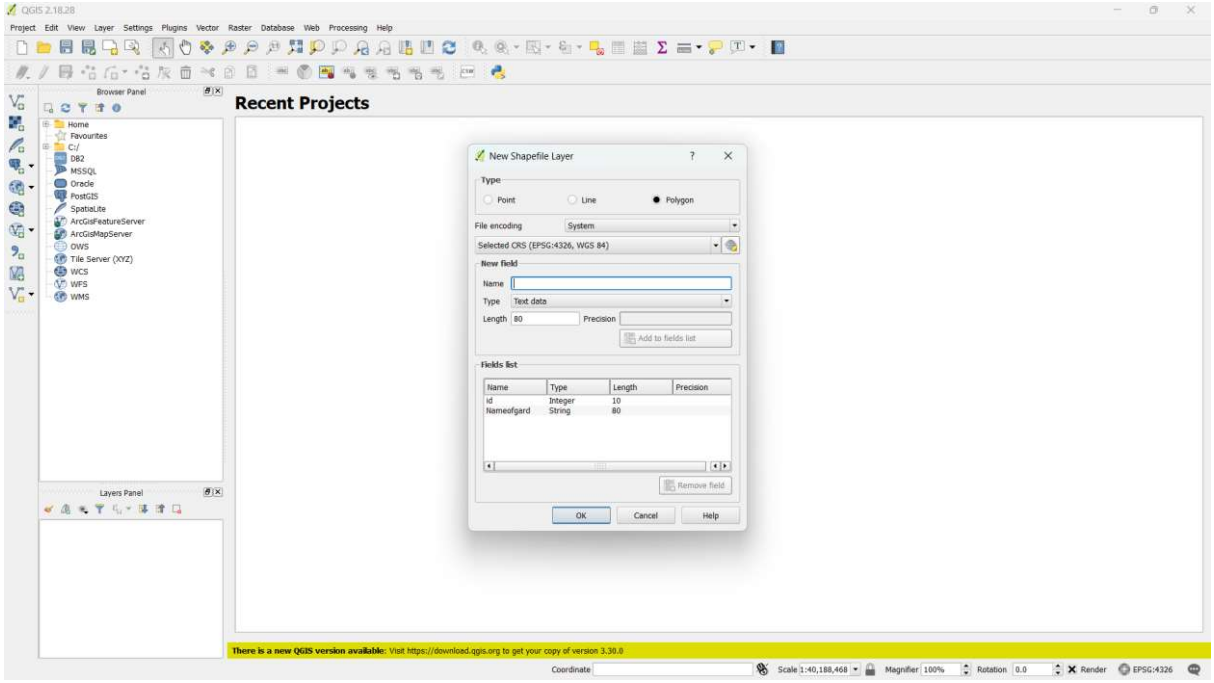
Aim: Creating and Managing Vector Data: Adding vector layers, setting properties, formatting, calculating line lengths and statistics.

Steps:

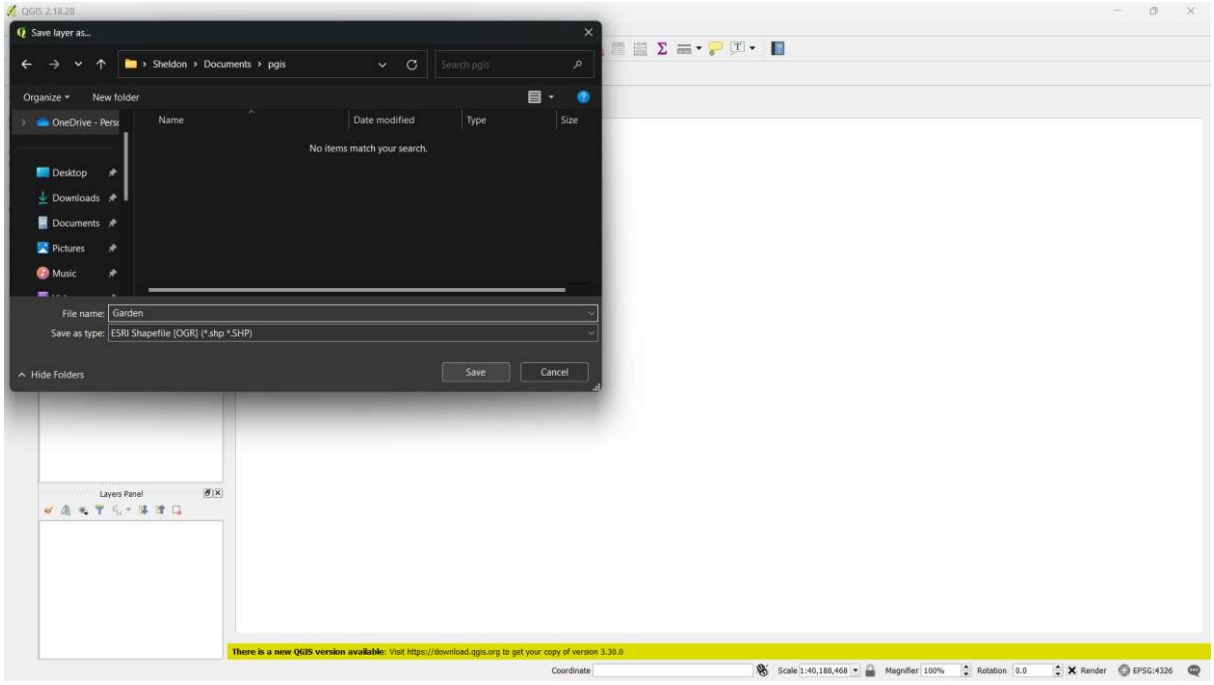
Step 1 – Open QGIS Desktop 2.18. To create a polygon layer in the Layer tab, click on Create Layer and then select New Shapefile Layer.



Step 2 – Select the options and enter the data as shown below.

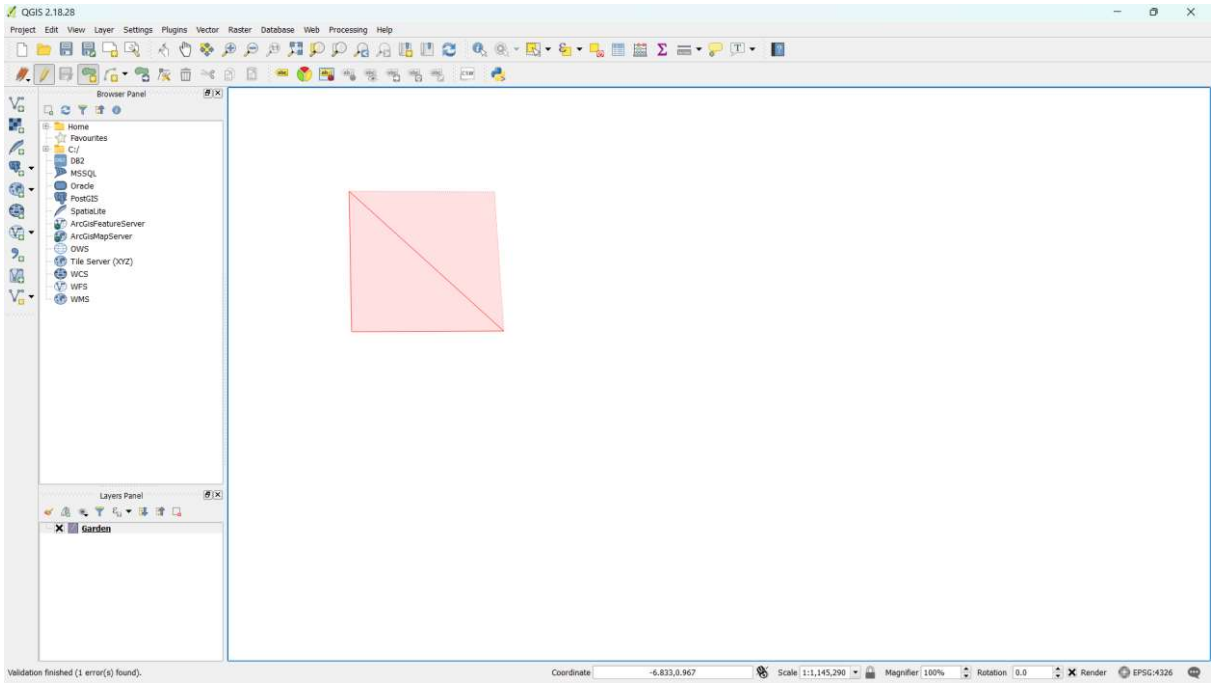


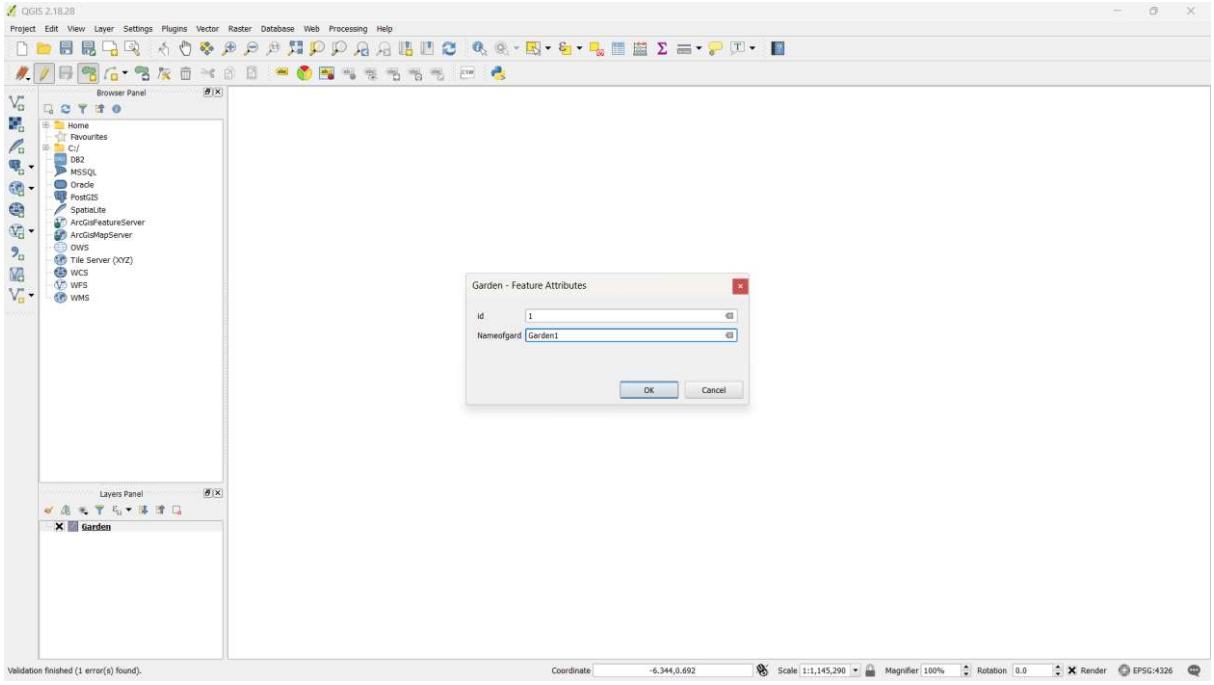
Step 3 – Enter a file name and click OK.

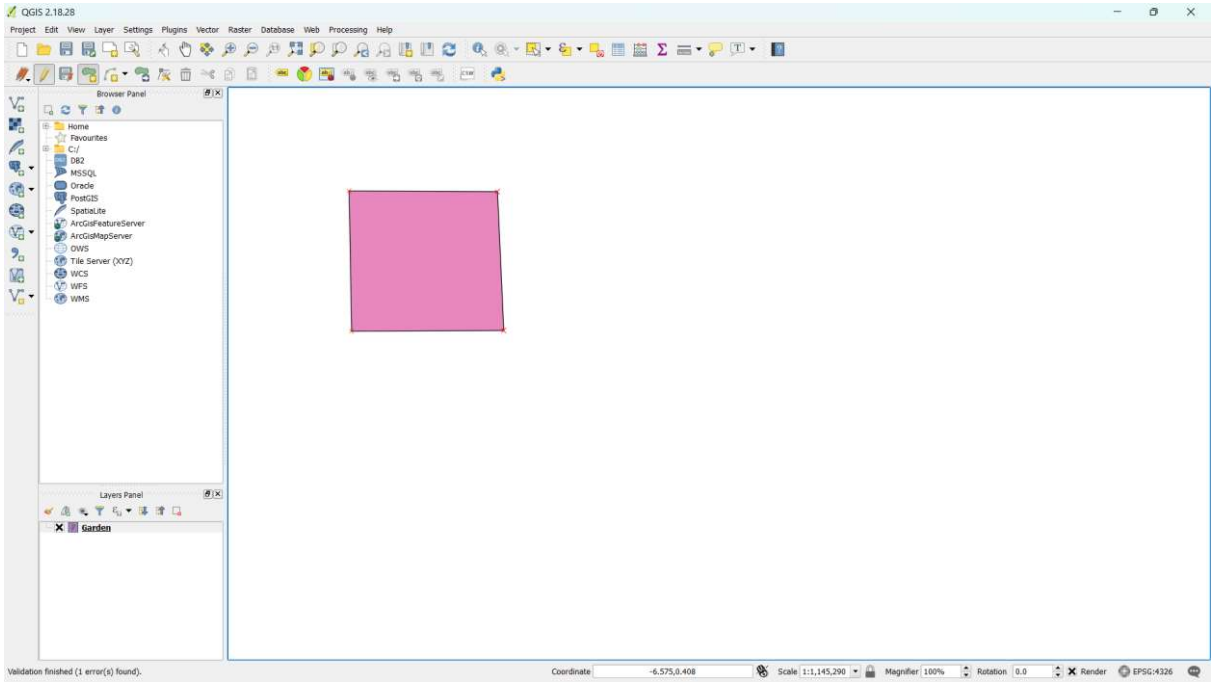


Step 4 – A new Shapefile Layer has been created now click the Toggle Editing button and then the add feature button situated in the top left hand corner.

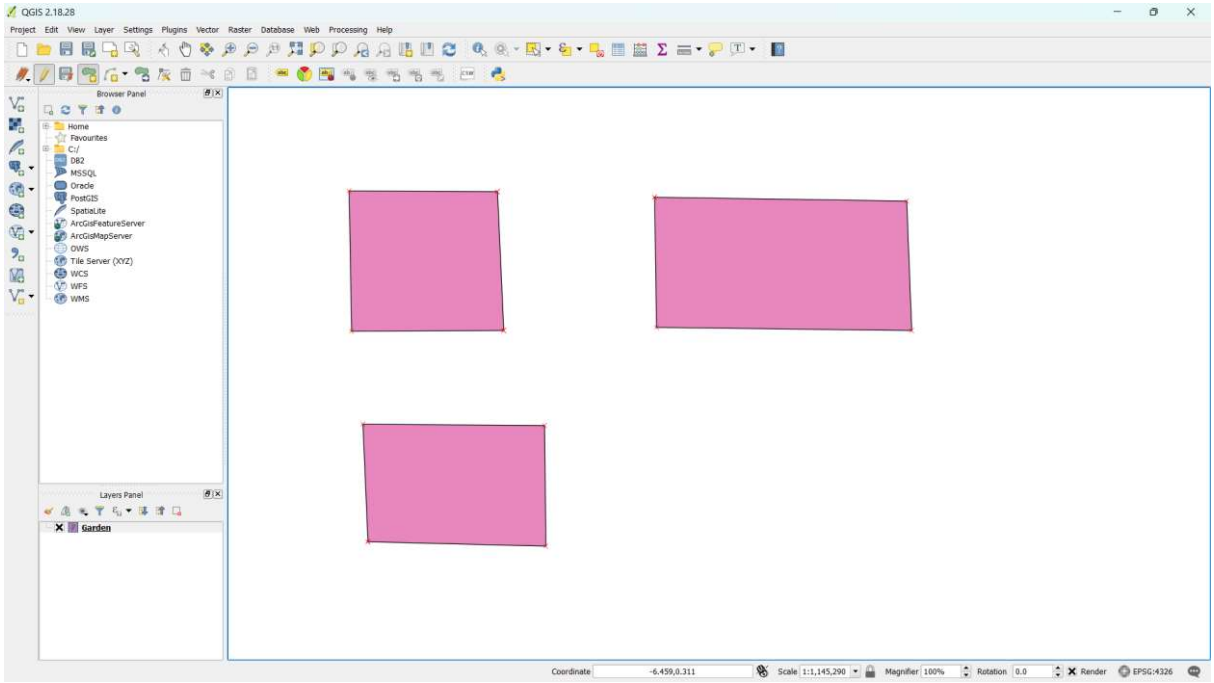
Step 5 – Now to create a polygon left click to add points on the canvas and then right click to save and add field data.



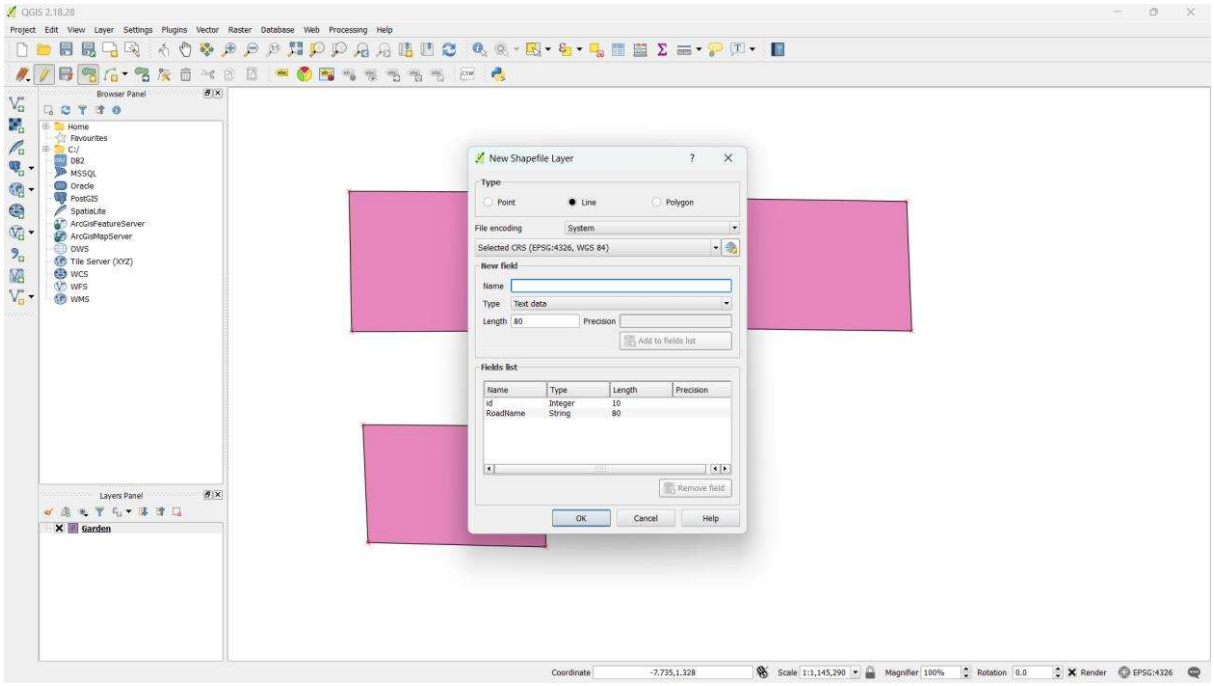




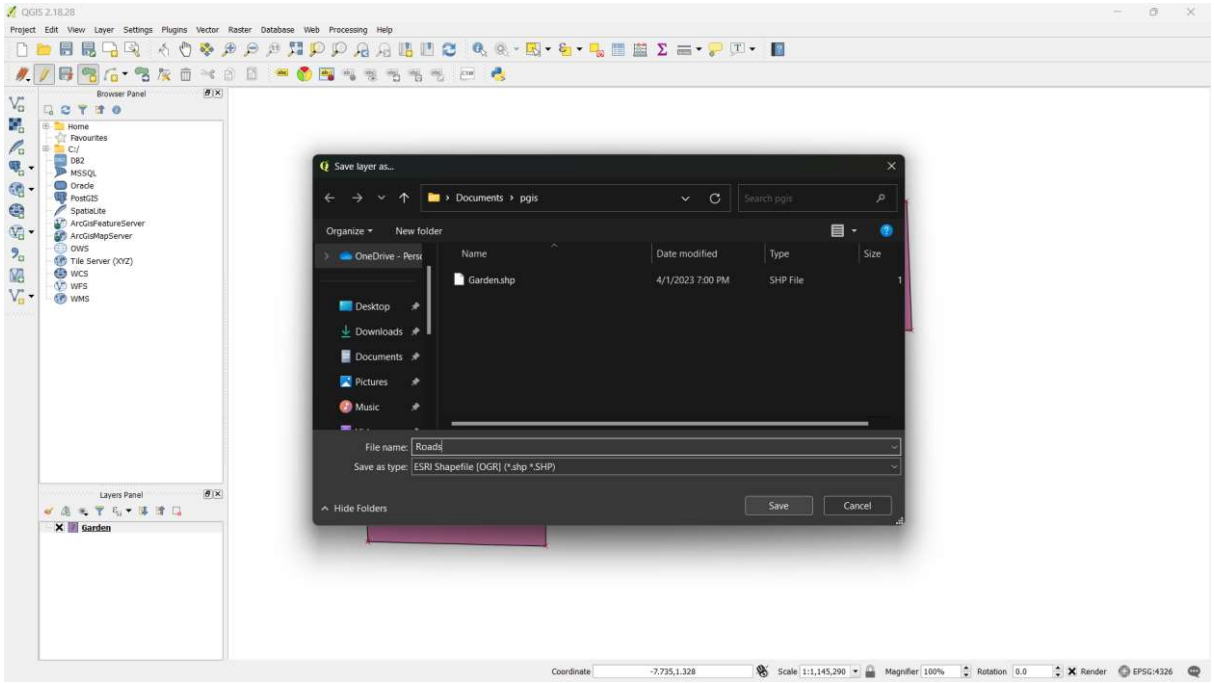
Step 6 – Add as many polygons as you like.



Step 7 – Now to create a line layer again click New Shapefile Layer and this time select the following options.

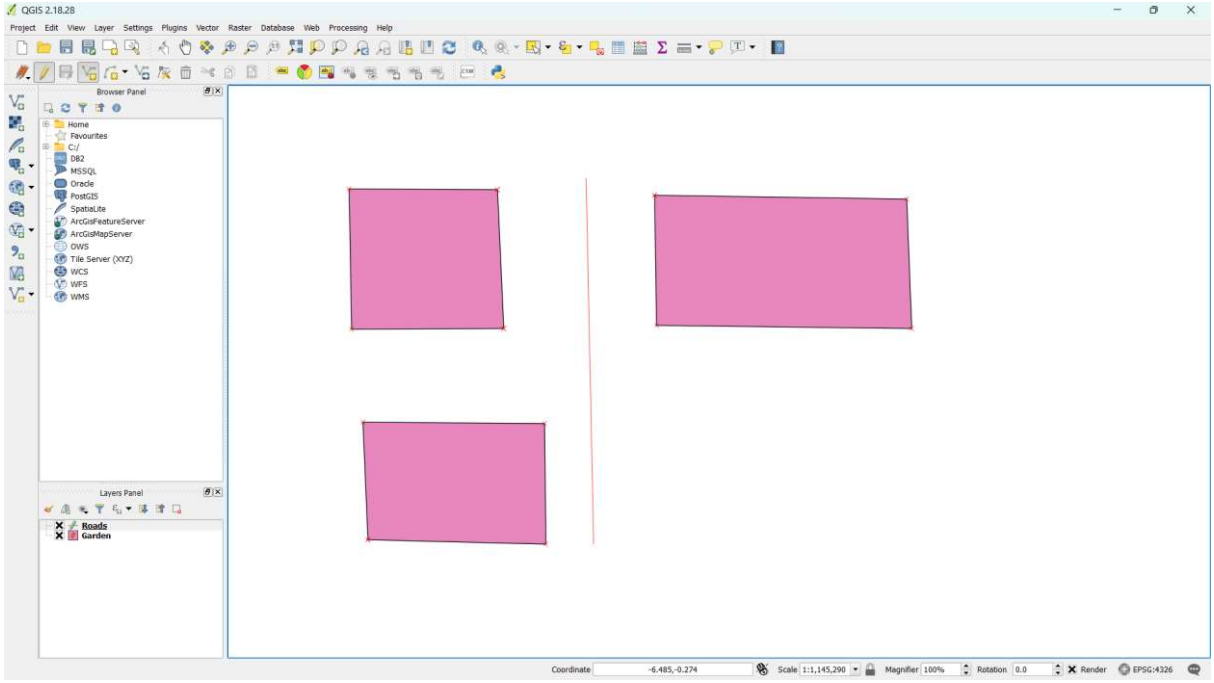


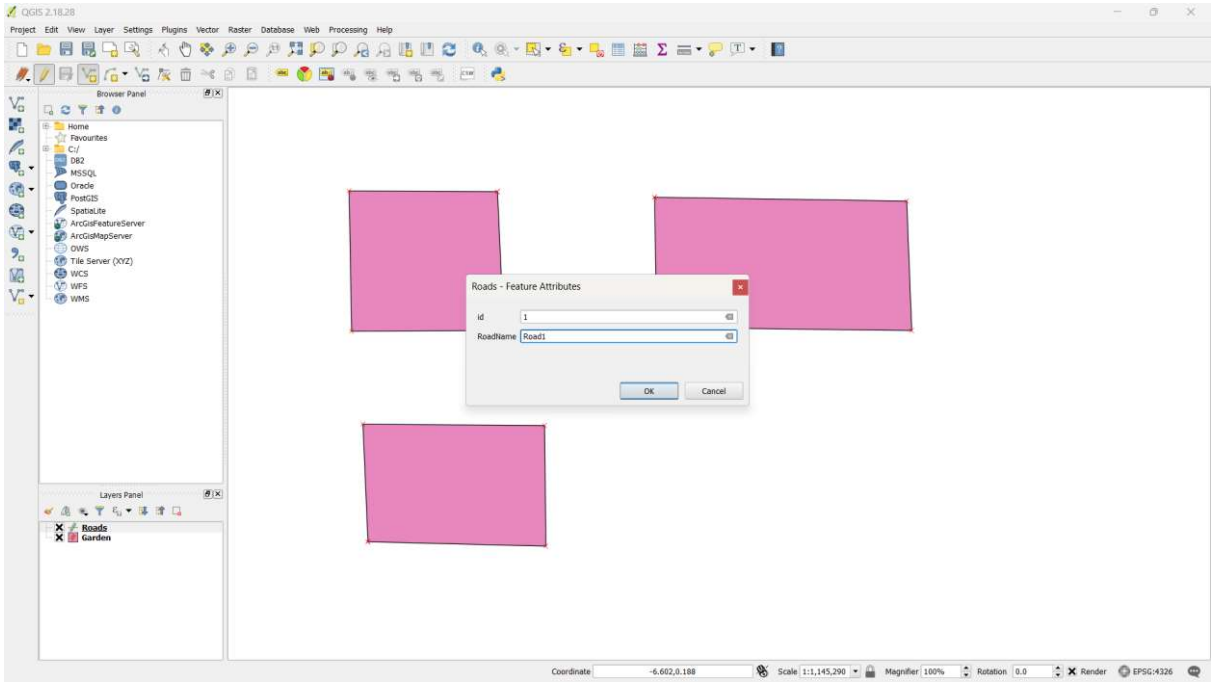
Step 8 – Enter the name and save the file.



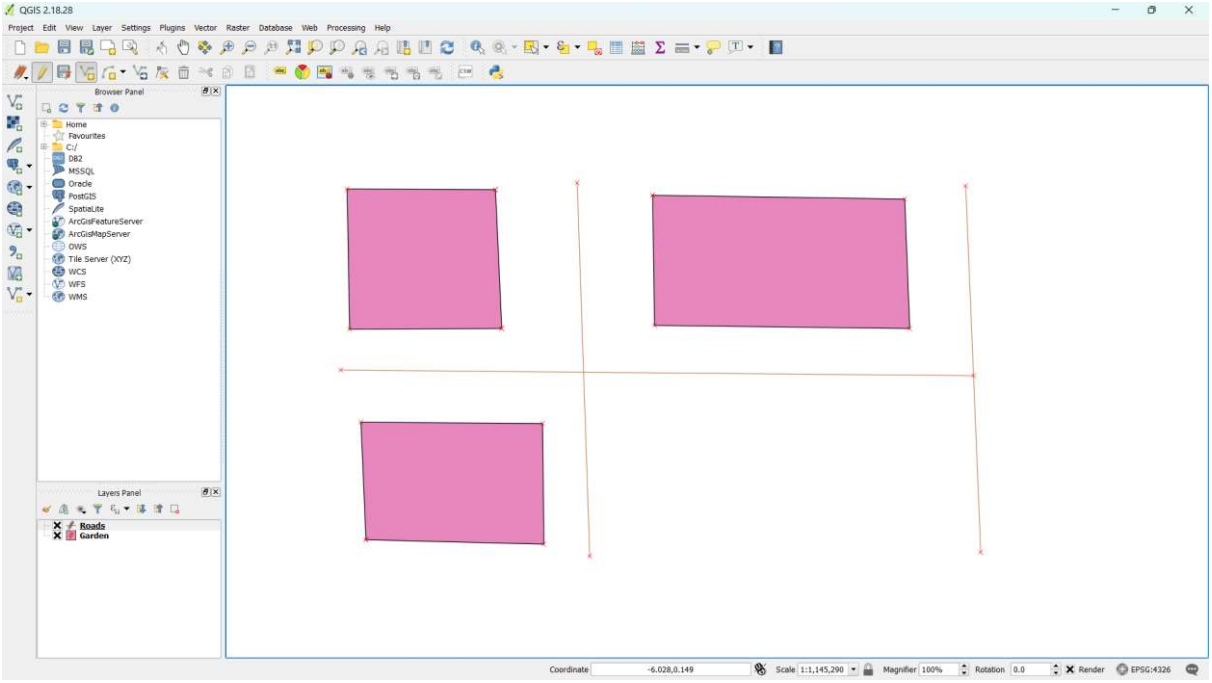
Step 9 – A new Lines Layer is created. Again click the Toggle Editing button and Add Line Feature button.

Step 10 – Now create and save lines as shown below.

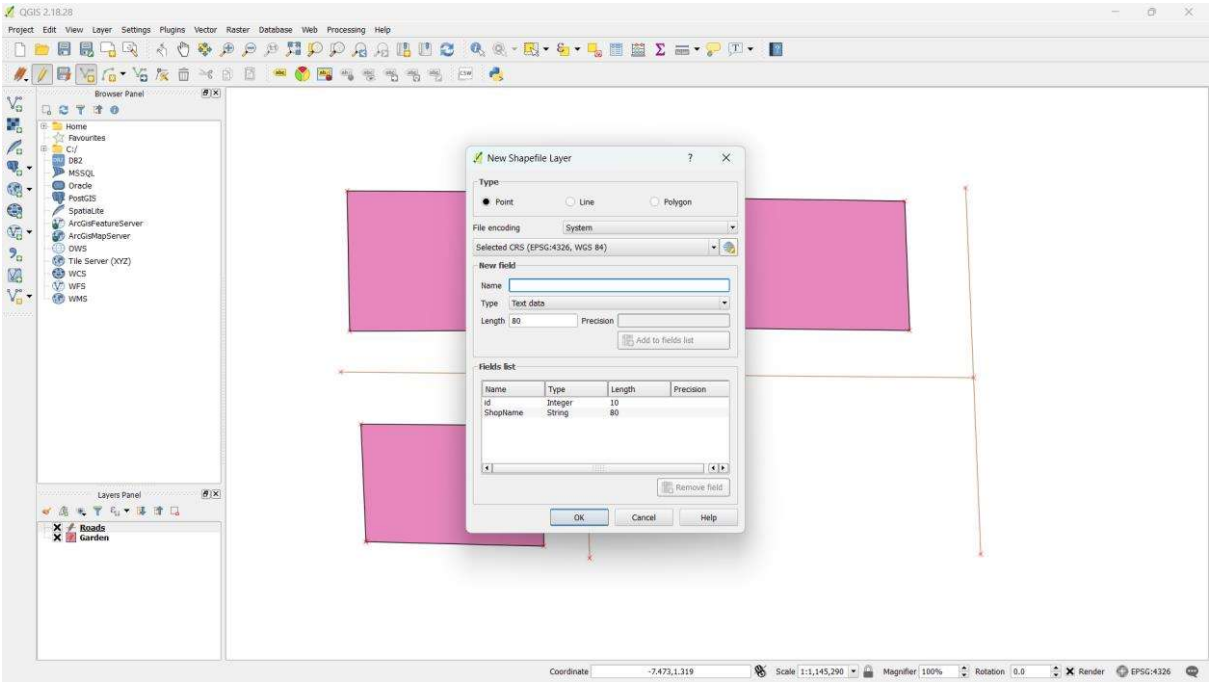


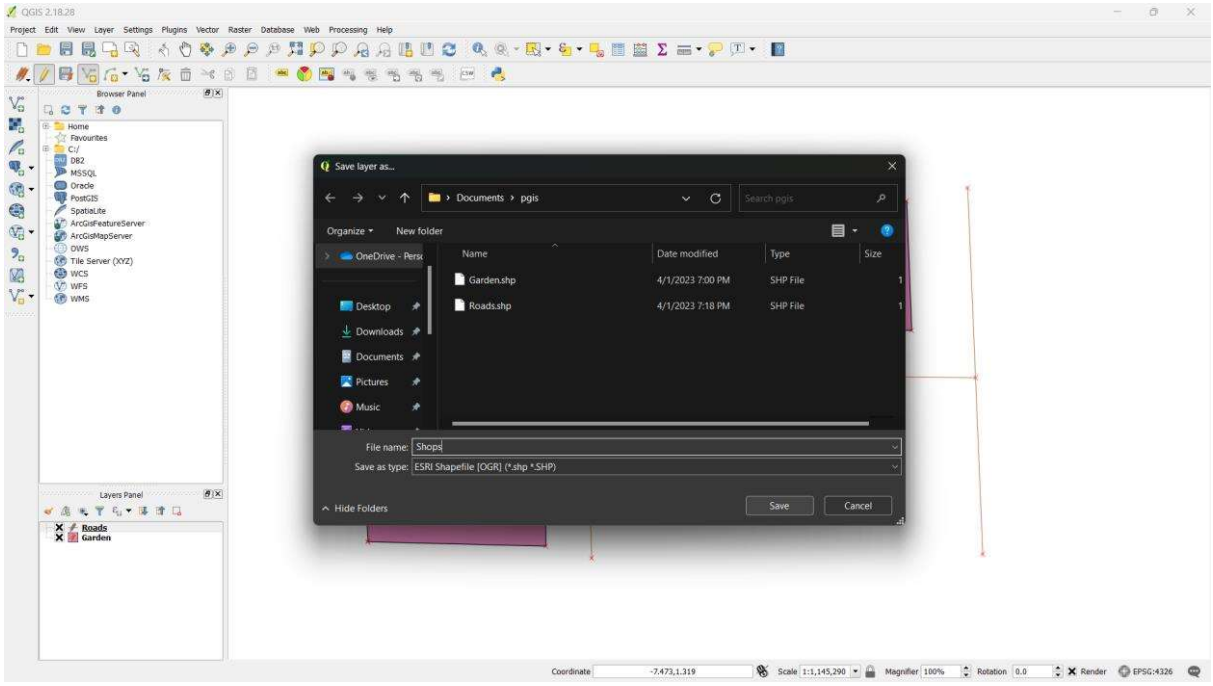


Step 11 – You can create as many lines as you like.



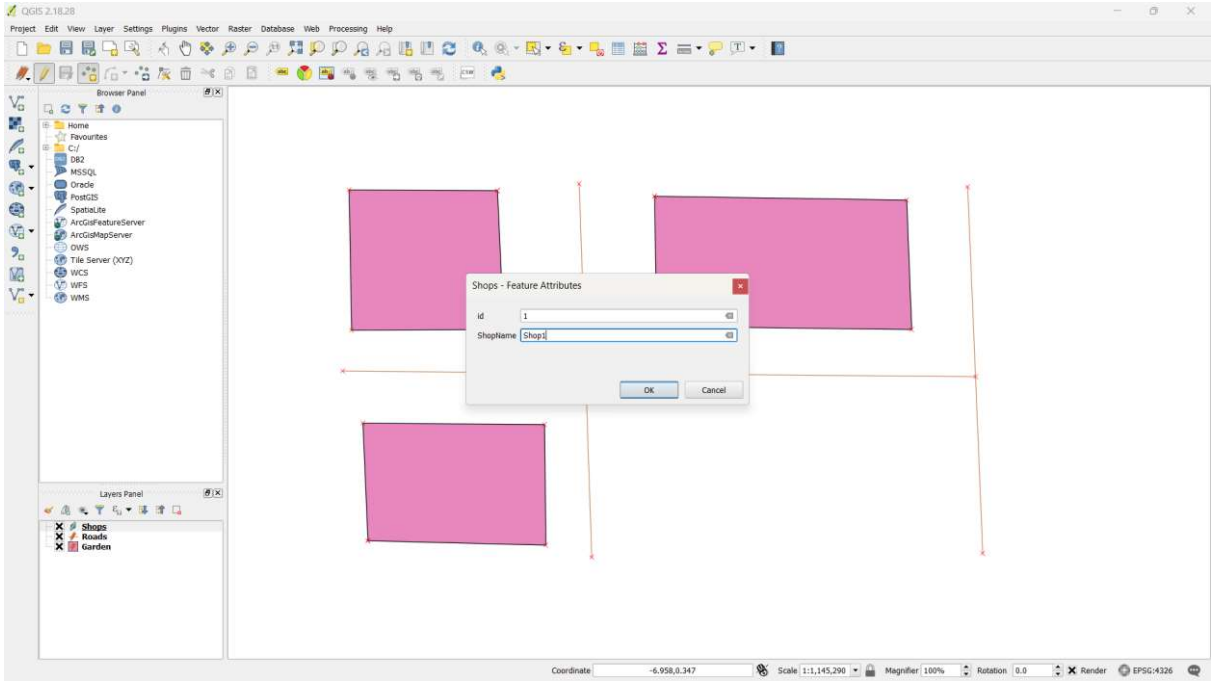
Step 12 – Now create a new Point type Shapefile Layer and select the options as shown below and finally enter the layer name and save.

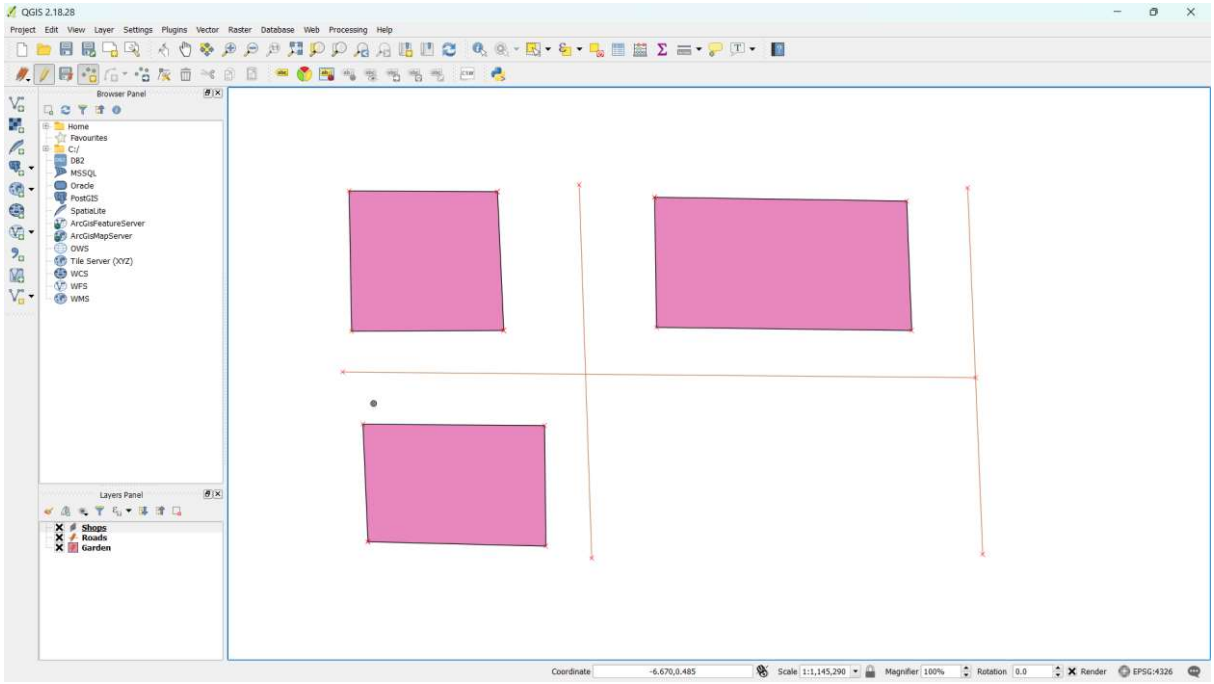




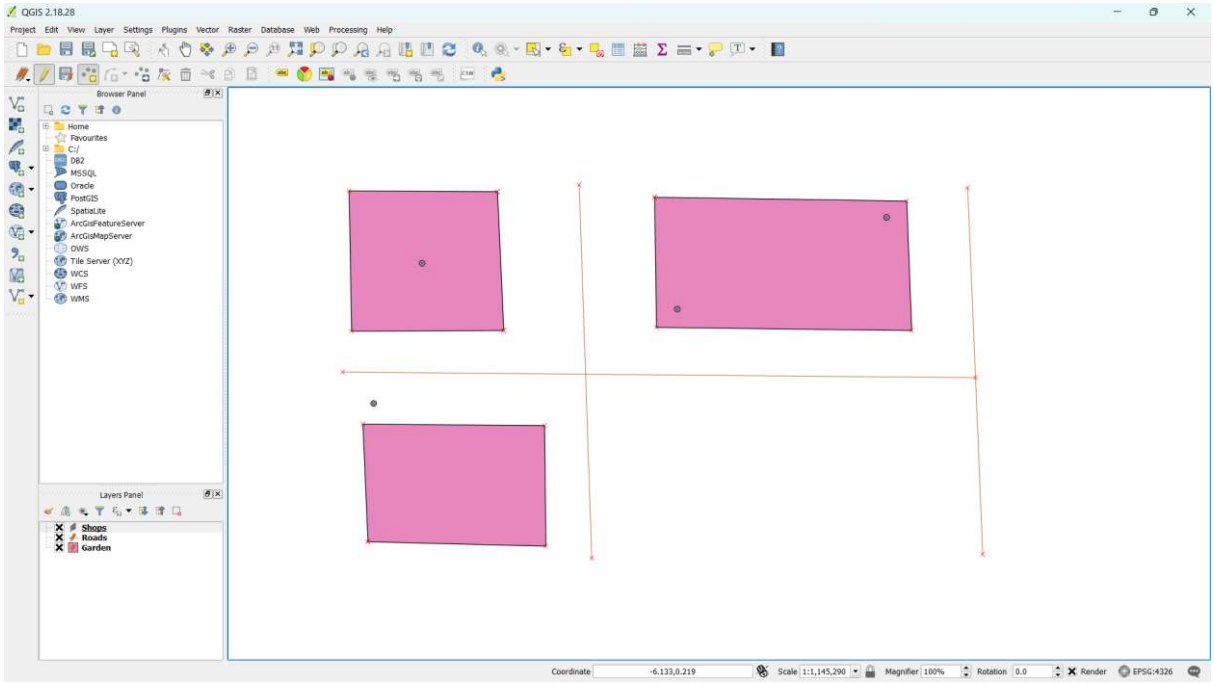
Step 13 – A new layer is created now again click the Toggle Editing button and Add Feature button.

Step 14 – Click wherever you want to add and point and enter the following data.

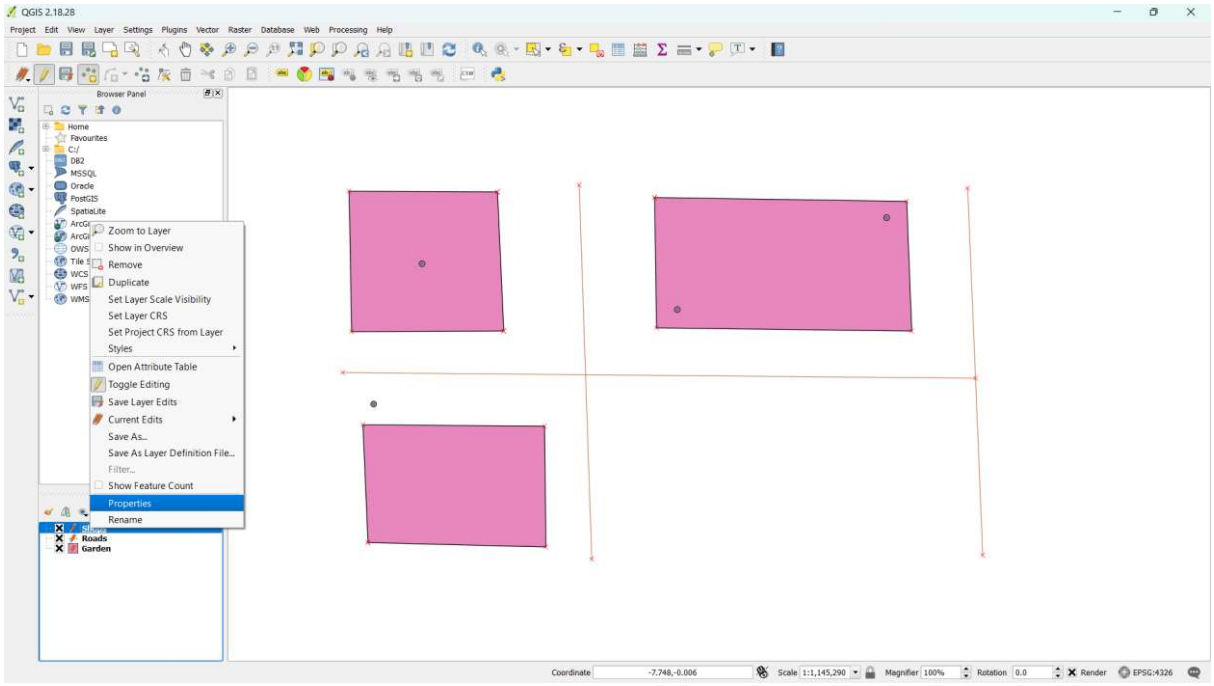




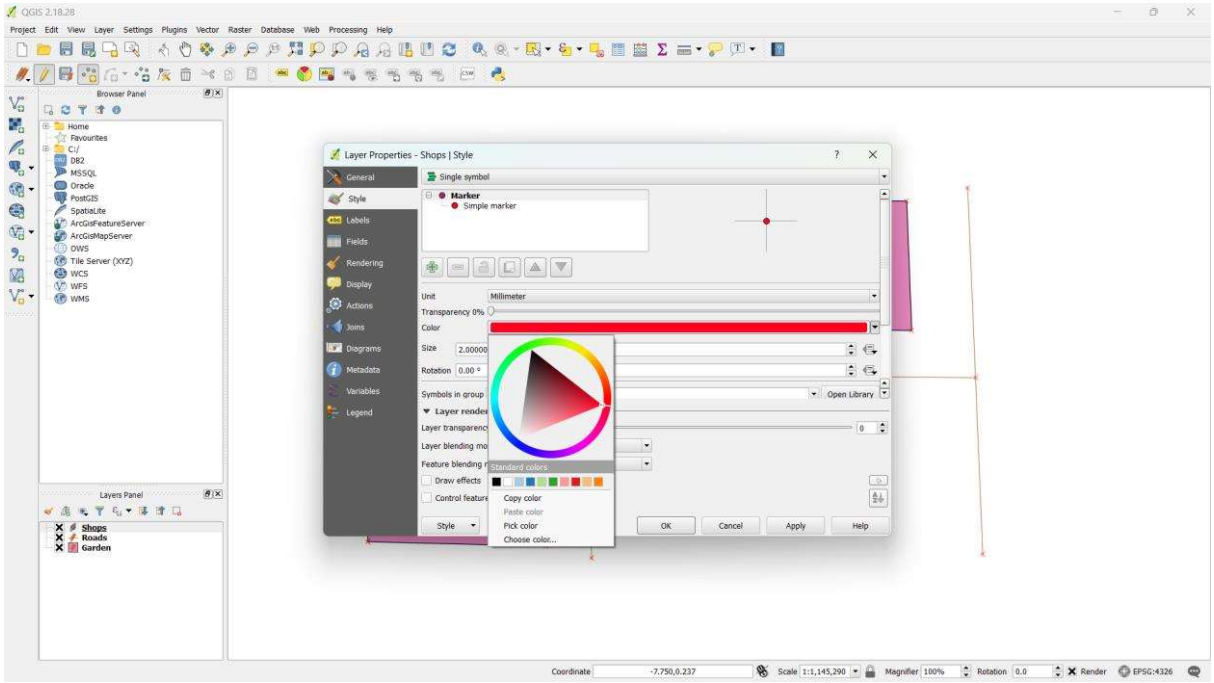
Step 15 – Similarly you can add as many points as you like.

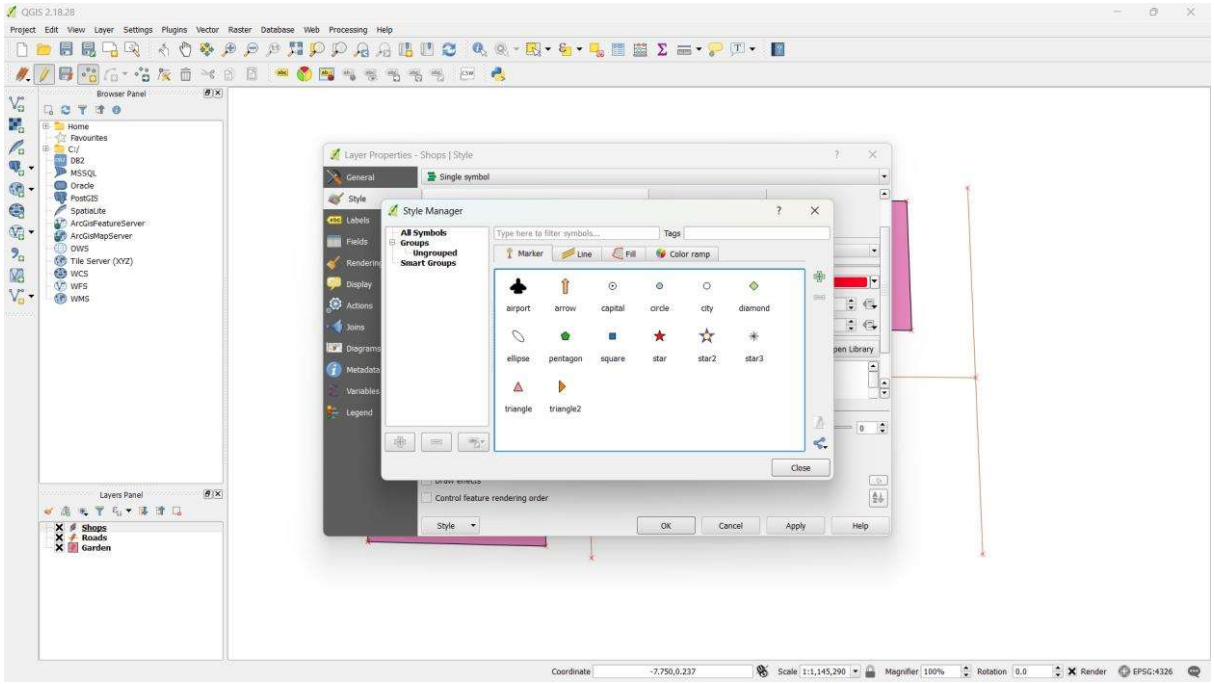


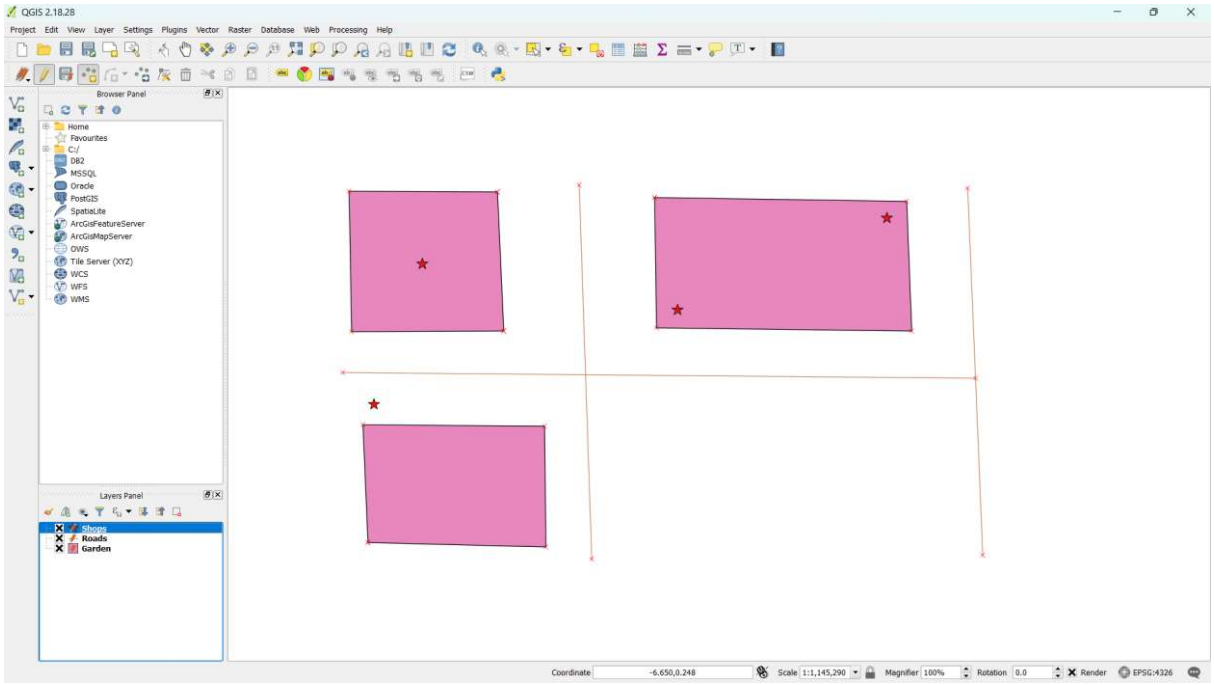
Step 16 – You can change the properties of any of the layers by just right click on any of the layer and then clicking properties.



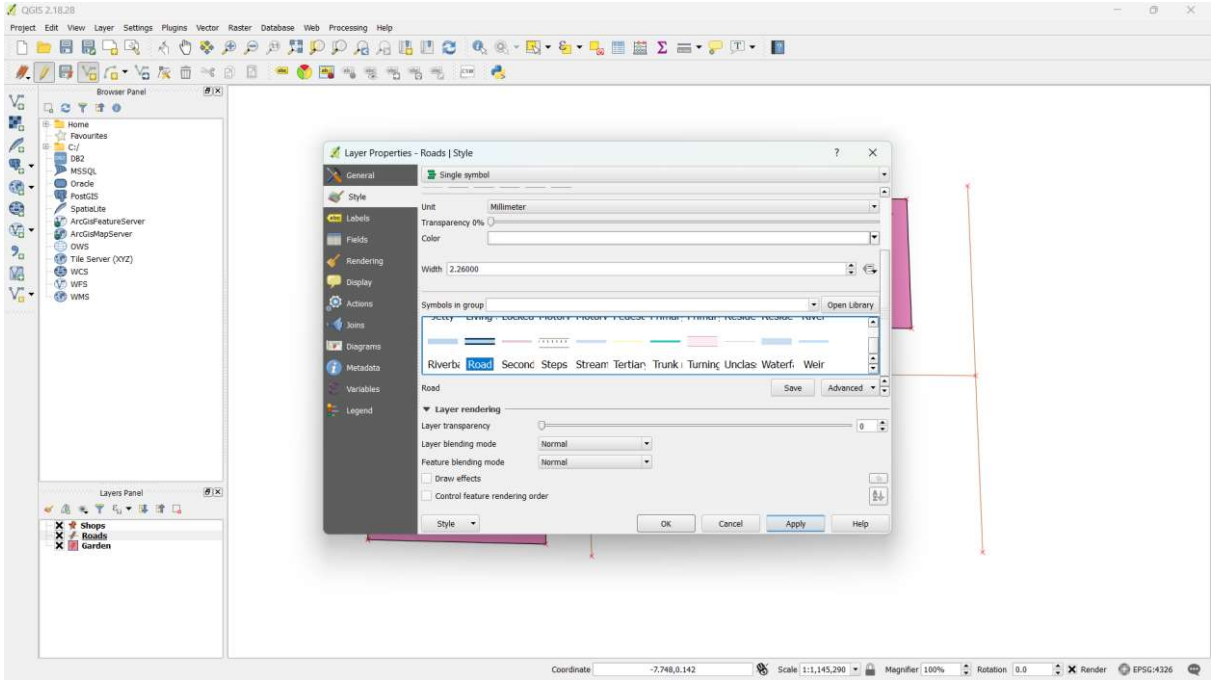
Step 17 – You can change anything like its color, size, symbol, etc.

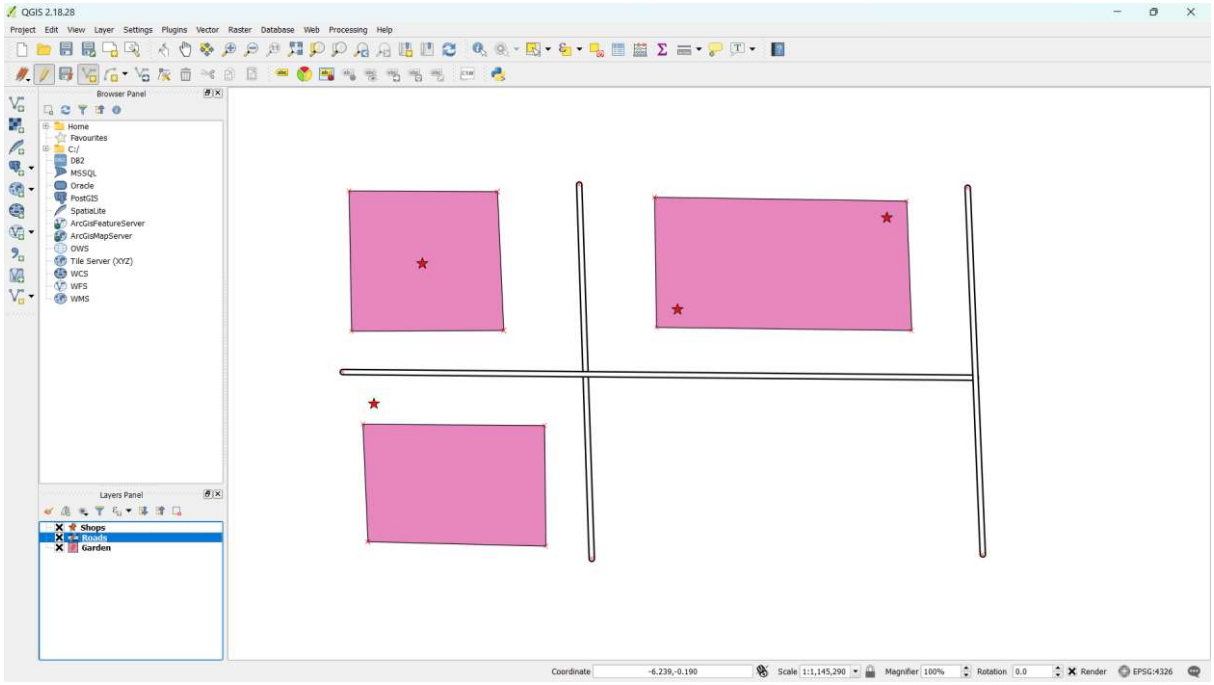


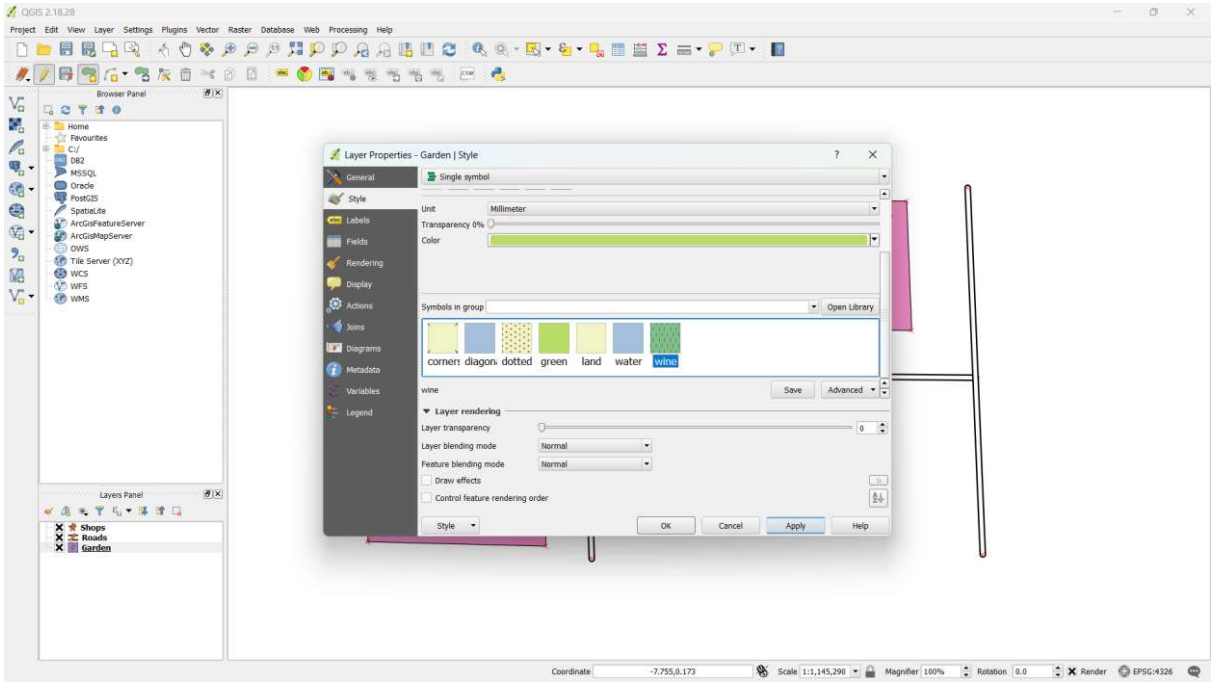

QGIS 2.18.28
Style Manager
Layer Properties - Shops | Style
Shops
Roads
Garden

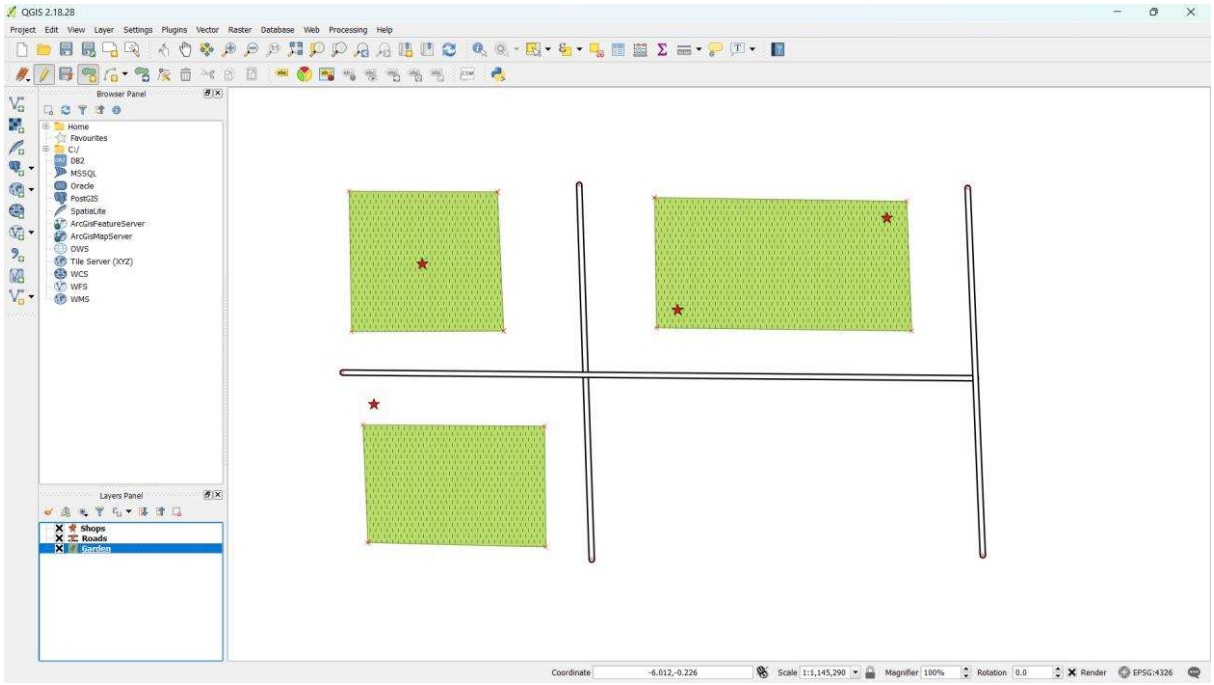

QGIS 2.18.28
Shops
Roads
Garden

Step 18 – The same can be done to other layers.

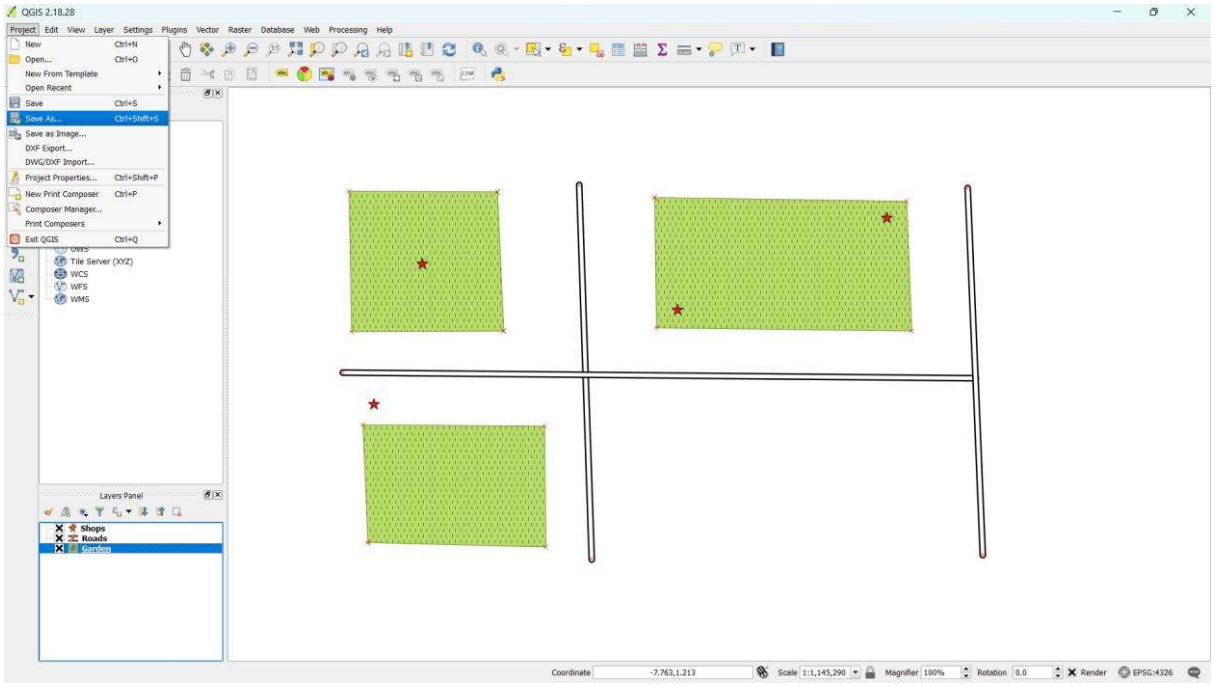


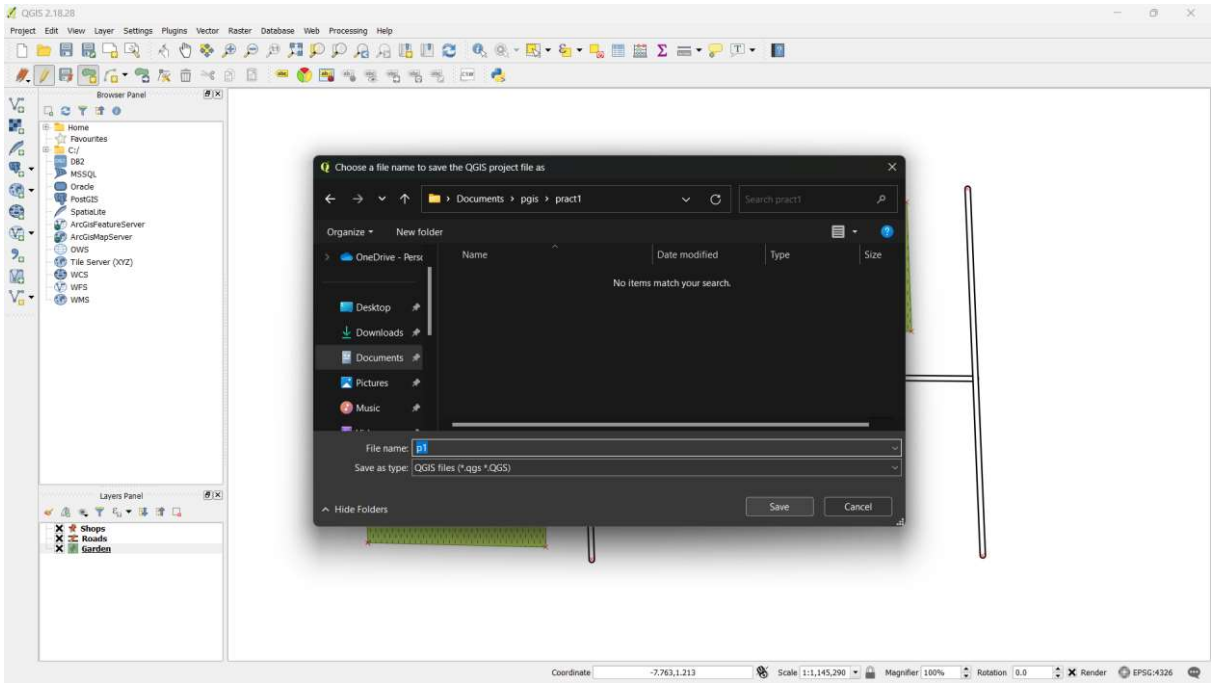



QGIS 2.18.28
Layer Properties - Garden | Style
Single symbol
Unit
Millimeter
Transparency 0%
Color
Symbols in group
Open Library
corner
diagon
dotted
green
land
water
wine
Save
Advanced
Layer rendering
Layer transparency
Layer blending mode
Normal
Feature blending mode
Normal
Draw effects
Control feature rendering order
OK
Cancel
Apply
Help
Shops
Roads
Garden

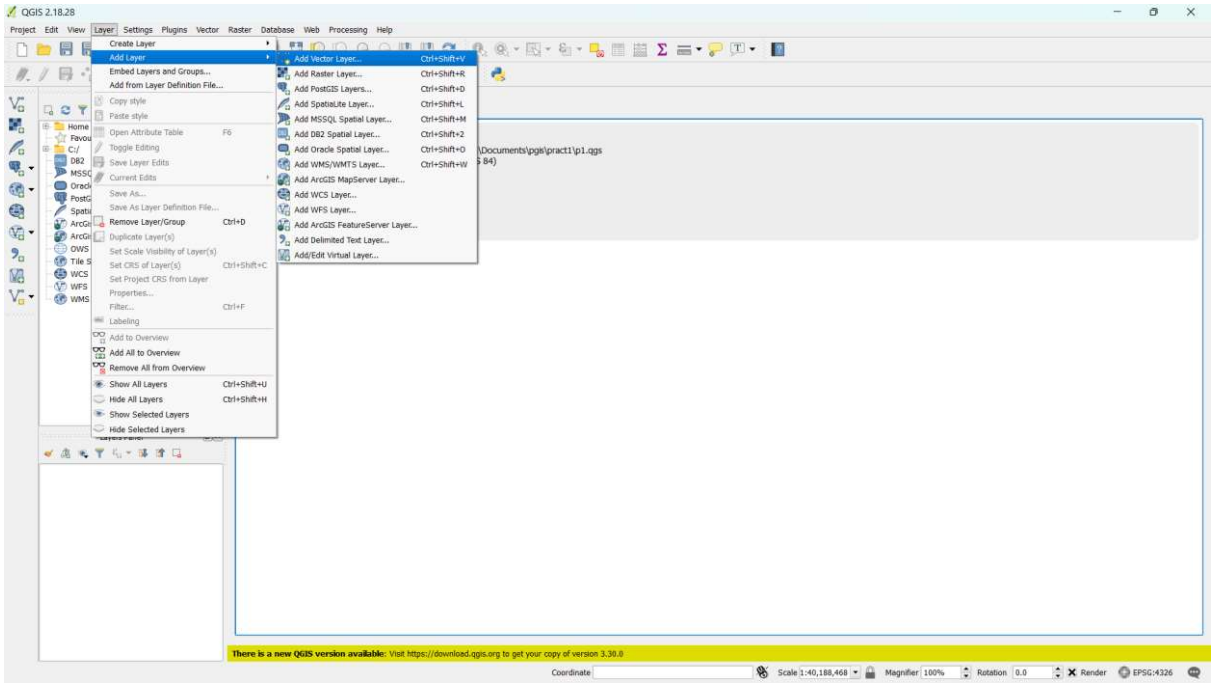

QGIS 2.18.28
Shops
Roads
Garden

Step 19 – Now to save the project click on Project > Save As enter file name and then click Save.

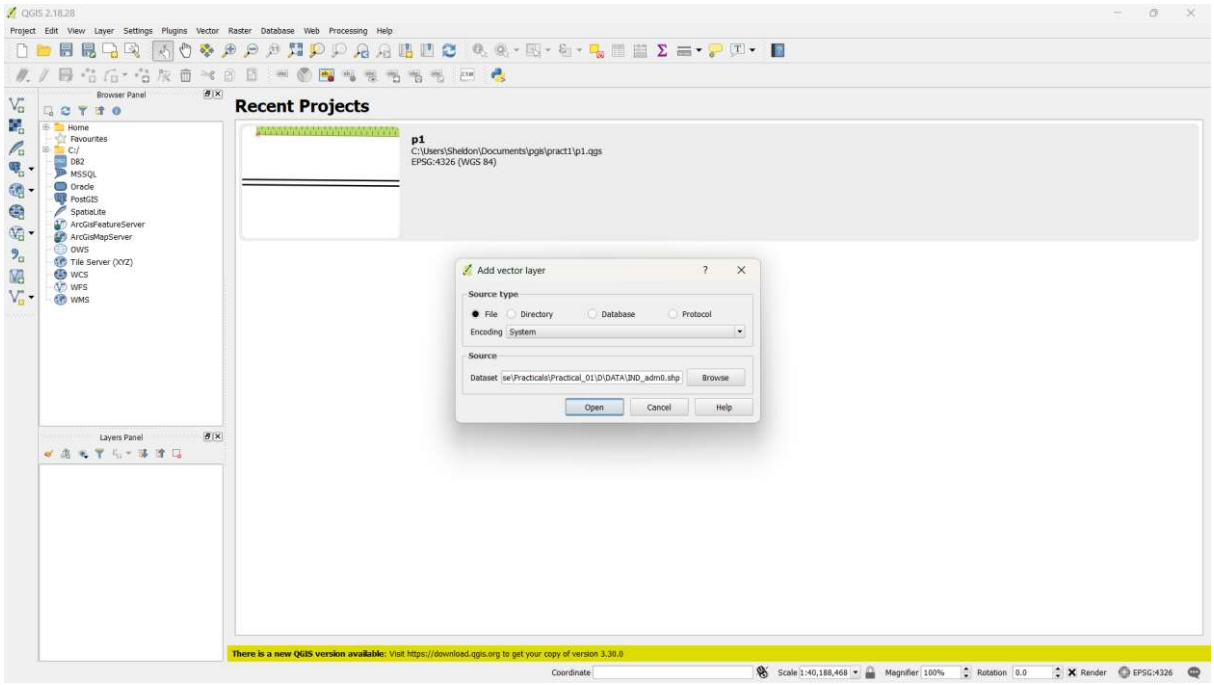




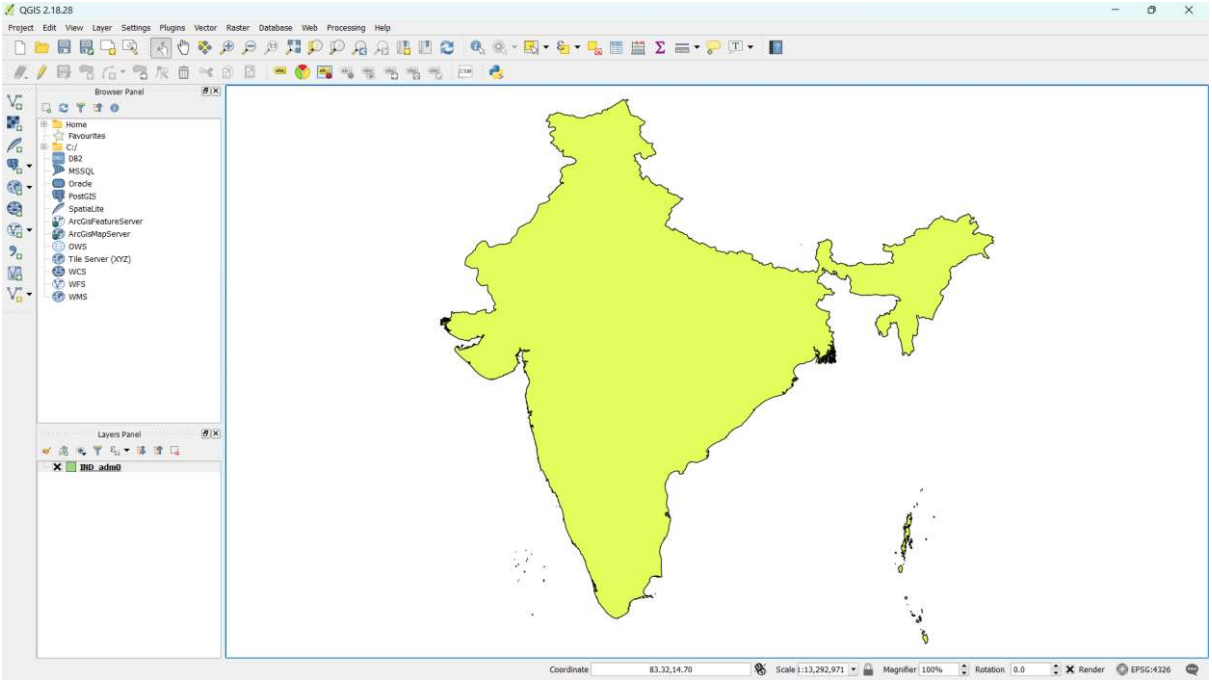
Step 20 – Now to calculate line length and statistics create a new project. In the Layer Tab click on Add Layer and select Add Vector Layer.



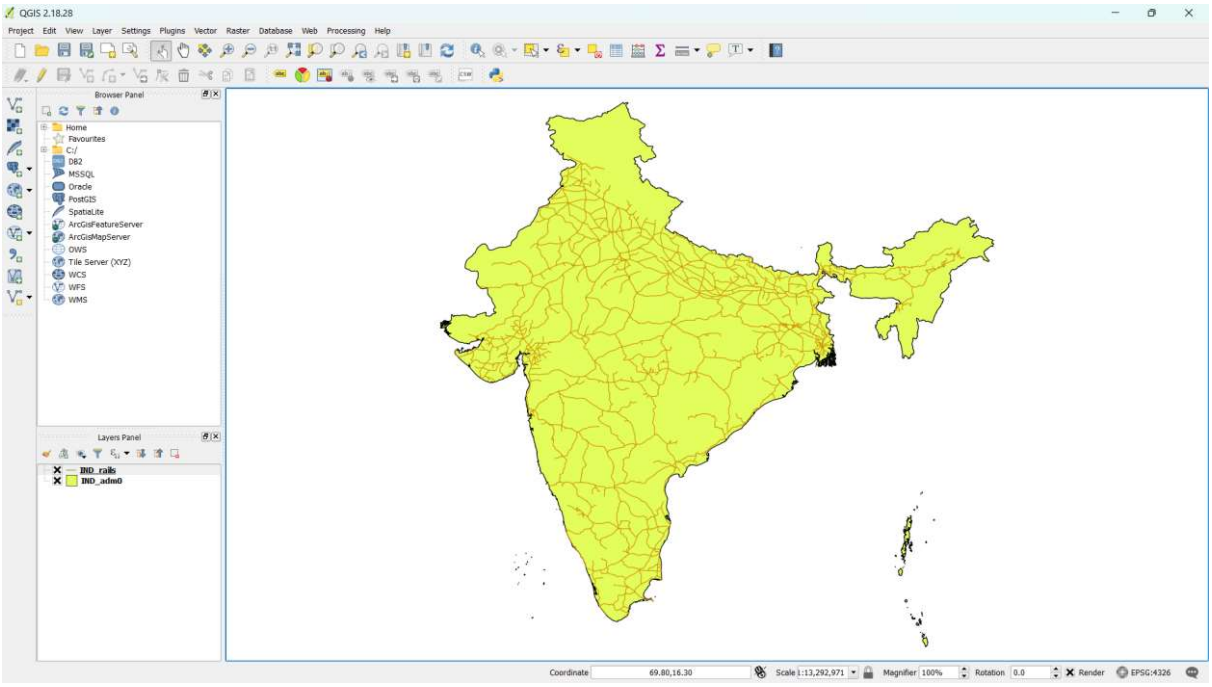
Step 21 – Select the option as shown below then choose the .shp file you want to add and then click Open.



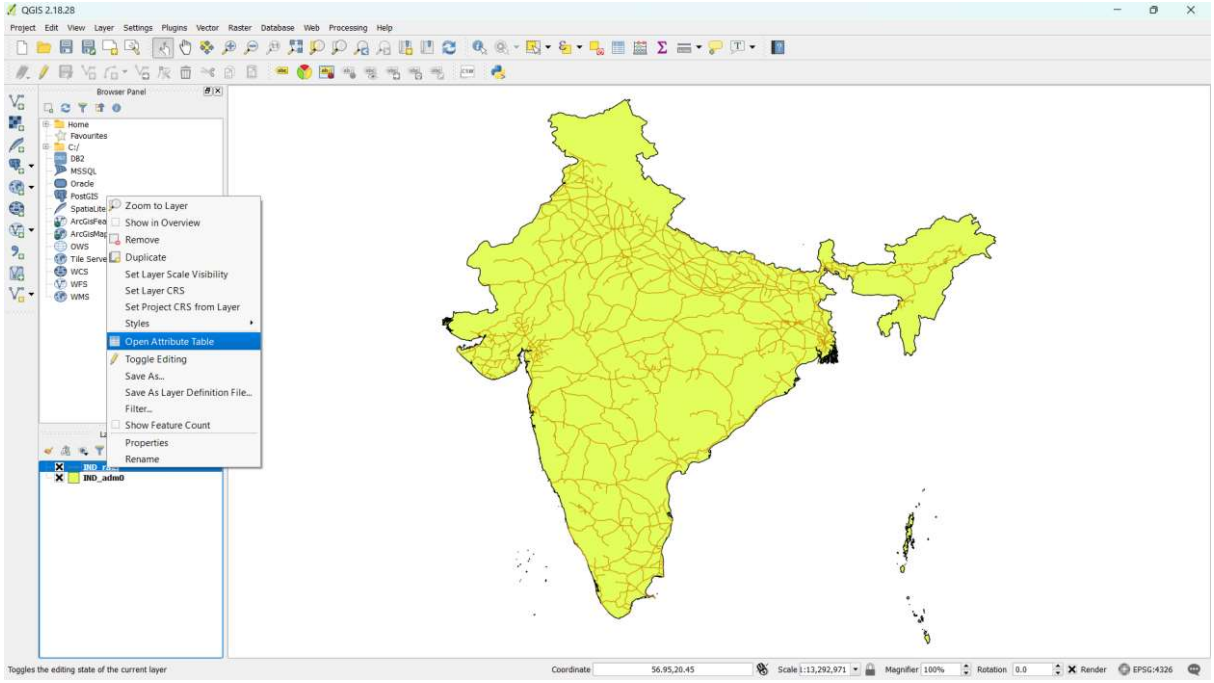
The file is loaded.

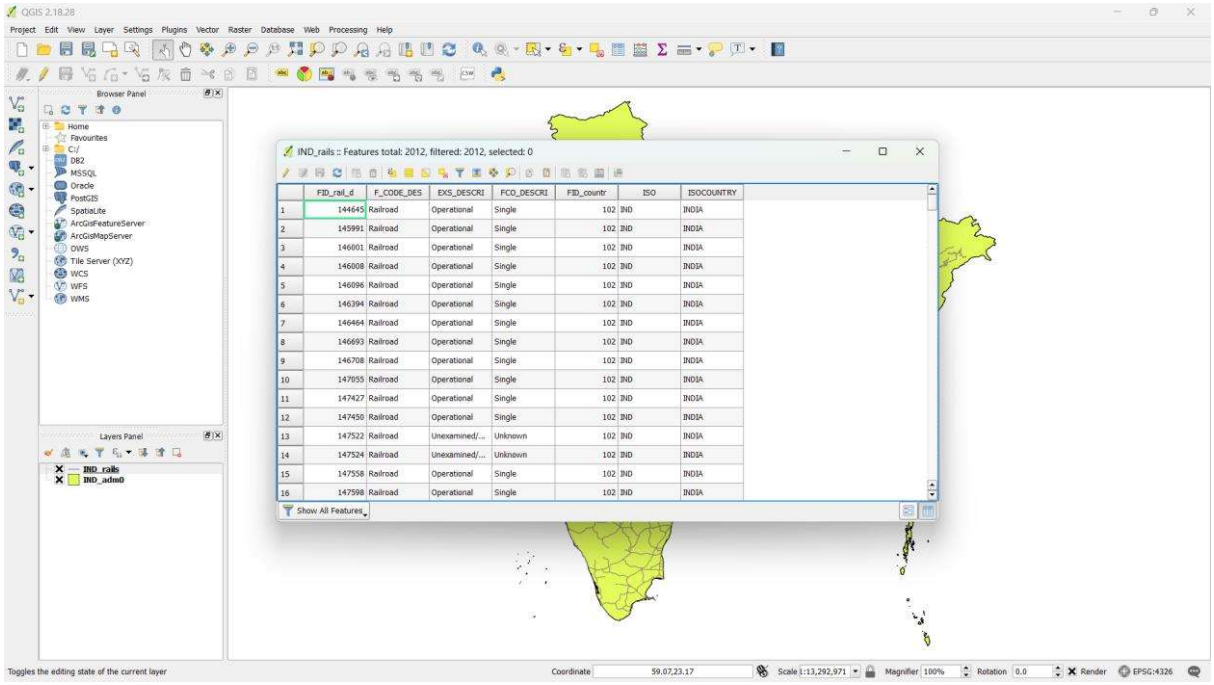


You can add as many layers you like using this method.

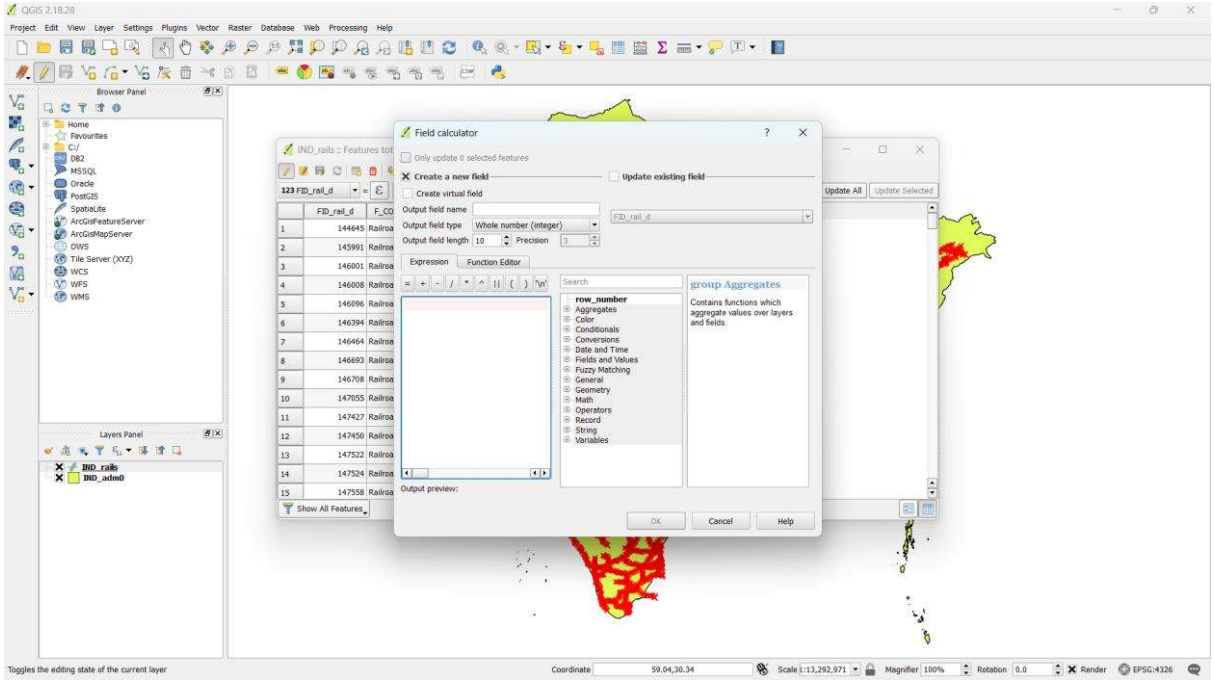


Step 22 – Now right click on a Layer and click Open Attribute Table.

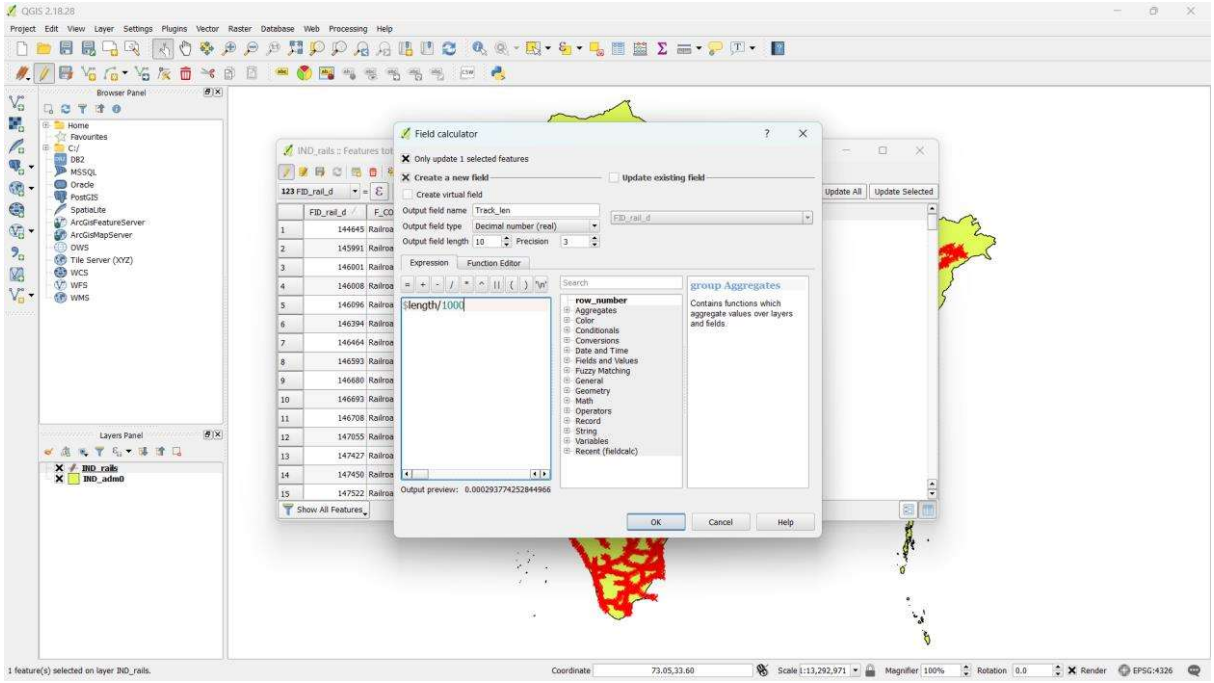




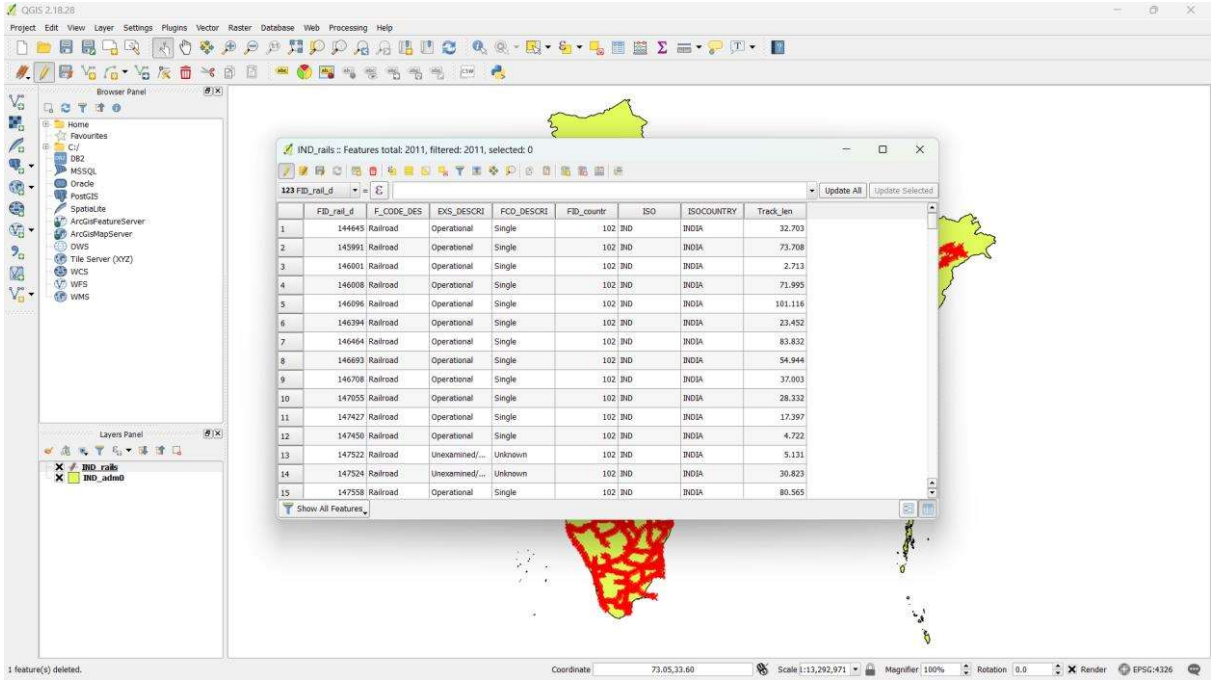
Step 23 – Now toggle editing and click on Open Field calculator.



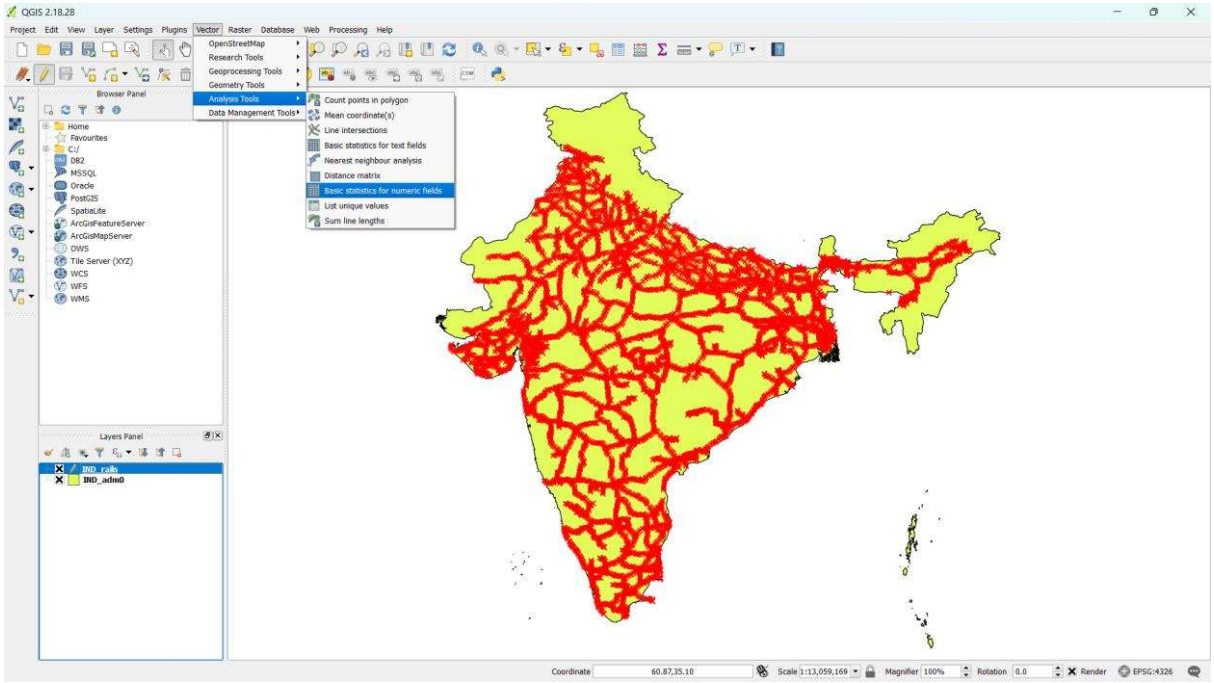
Step 24 – Enter data as shown below and then click OK.



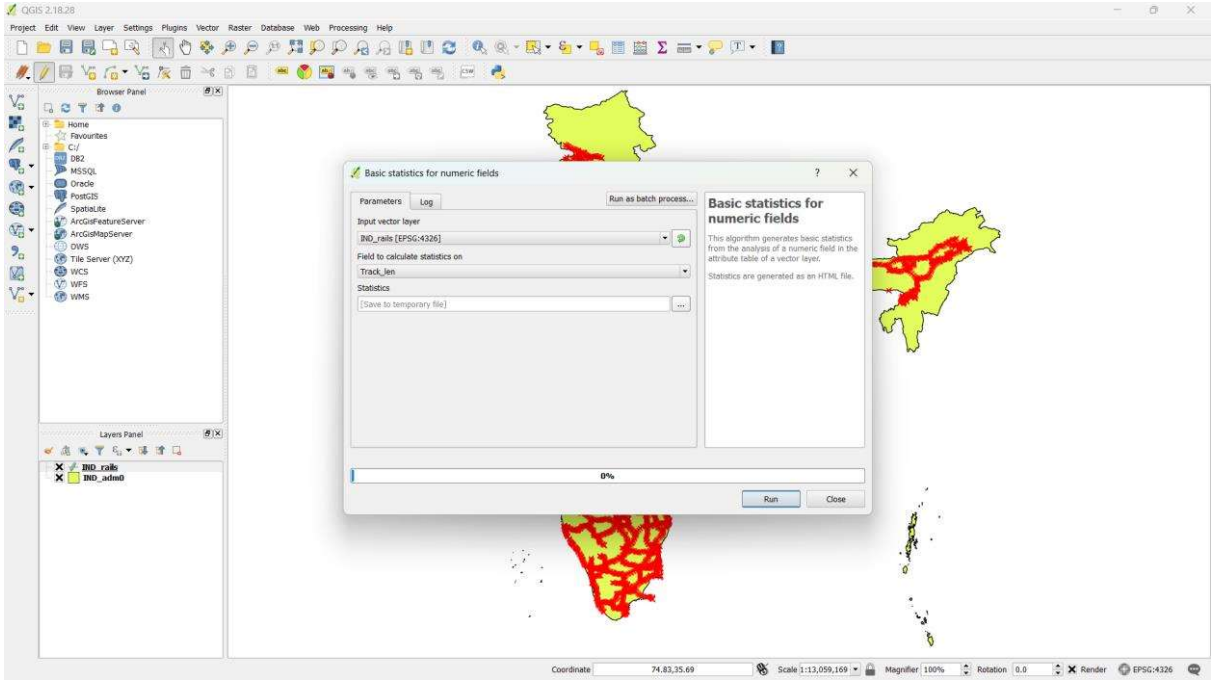
New Field is added.



Step 25 – Now in the Vector tab click on Analysis Tools and select Basic Statistics for numeric feilds.



Step 26 – Select the options as shown below and then click Run.



The following result gets generated.