ENTRY NO.:- 2020ceb1024
Course code- CE304

AIM:- To understand the QGIS software and draw maps of different locations using shape files.

STEPS:-

1. We installed the QGIS software and we installed the open layer plugin(as it is used in our project).
2. Now to create a new file we click on **layers** and then select the Create layer and then New Shape File layer. Firstly create a file of type point for trees and name this file as trees.Then select UTF-8 as file encoding and in geometry we select point(for representation of trees). After that we fill the file details in a new field(name,type and length) and then click on Add To Field List.In such a way a new shape file is created in layers.

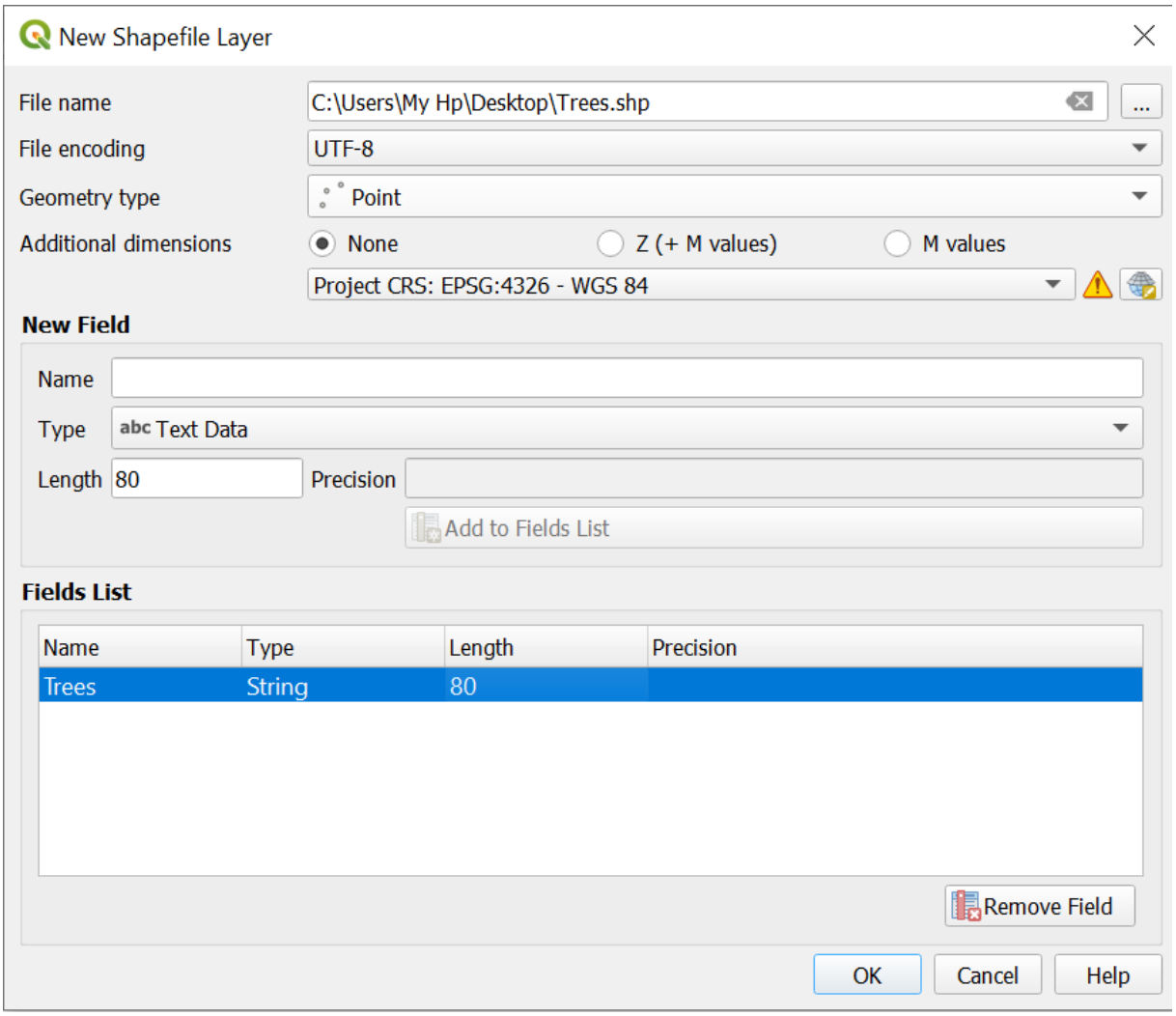
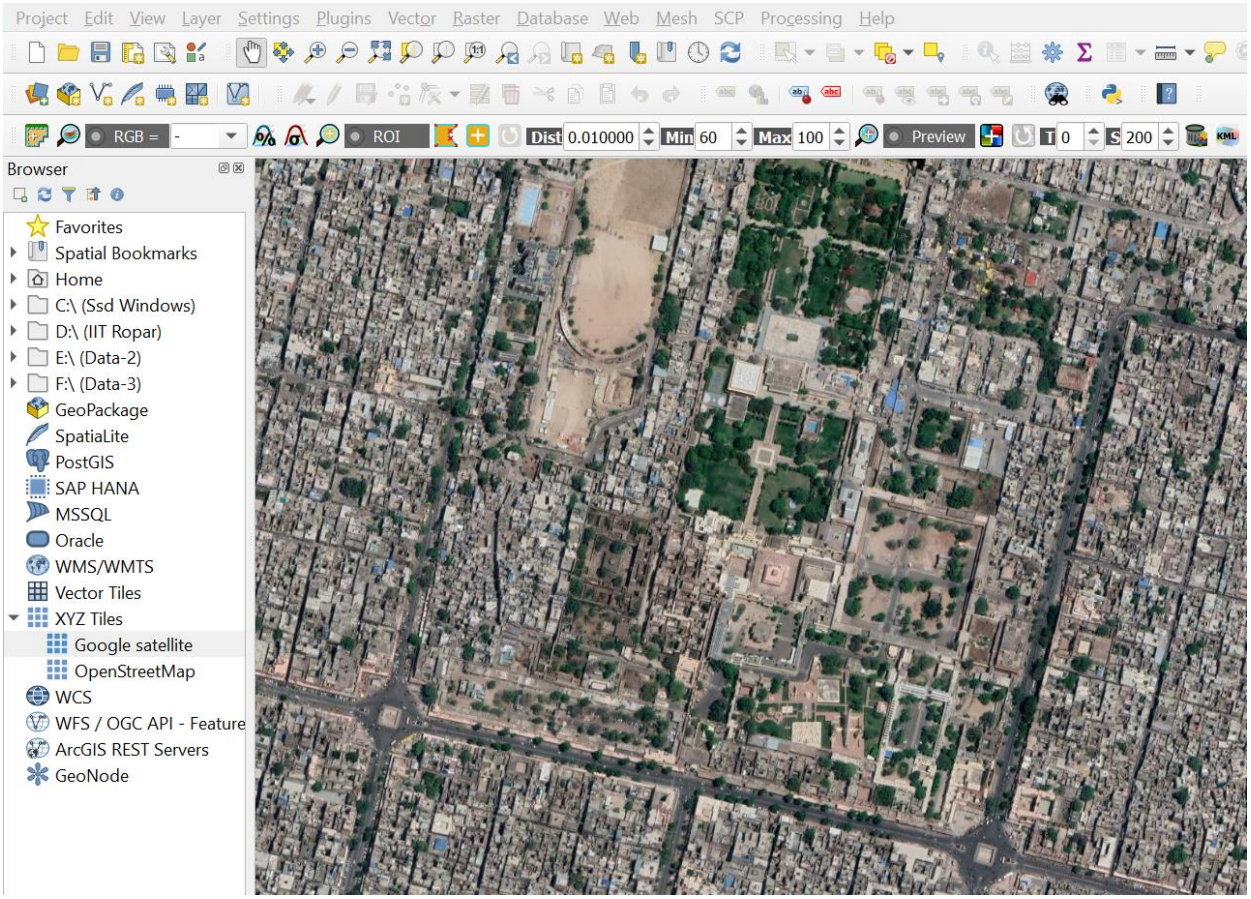


Fig. shows the new shape file layers for trees.

3. Similarly, we create new shape file for polygon(for buildings) and lines(for roads).After creating all these shape files we select the suitable map.I choose the google satellite map by using the link as given in the slides(select XYZ Tiles and select new connection and paste the link).

4. After adding the map I opened my locality i.e. jaipur



5. Then I started toggle editing by right clicking on polygon text and after selecting polygon then doing the selection of buildings from map. I outlined the area of the buildings located in my locality. Then after selecting the area we right click on map and then a box appears which asks for the specifications of the buildings . All the specifications filled by us are displayed on map or after saving if we want to modify jt so we can go to the Open attribute Table and make required changes. .After doing the toogle edit, we have saved the editing made by us on map. This is done by right click on toogle editing and then option appears that save the changes or not so we saved the changes and then data doodled by us get saves for this particular polygon shape file layer .Then,we moved to the next shape file layer.As we did for the lake , in the same manner we can do toogle editing by right click on polygon text for Urban area of build up area and give

specifications to areadoodles and save the changes by doing right click on toogle editing and save it.

In the figure pink areas show the buildings.

6. Similarly we do toggle editing of other shape files(line for roads and point for trees).
7. Now we label these by going into properties then selecting a single label, we also add a Draw text buffer to make the labels more clear.And to avoid overlapping we go to placement and select mode to avoid overlapping.

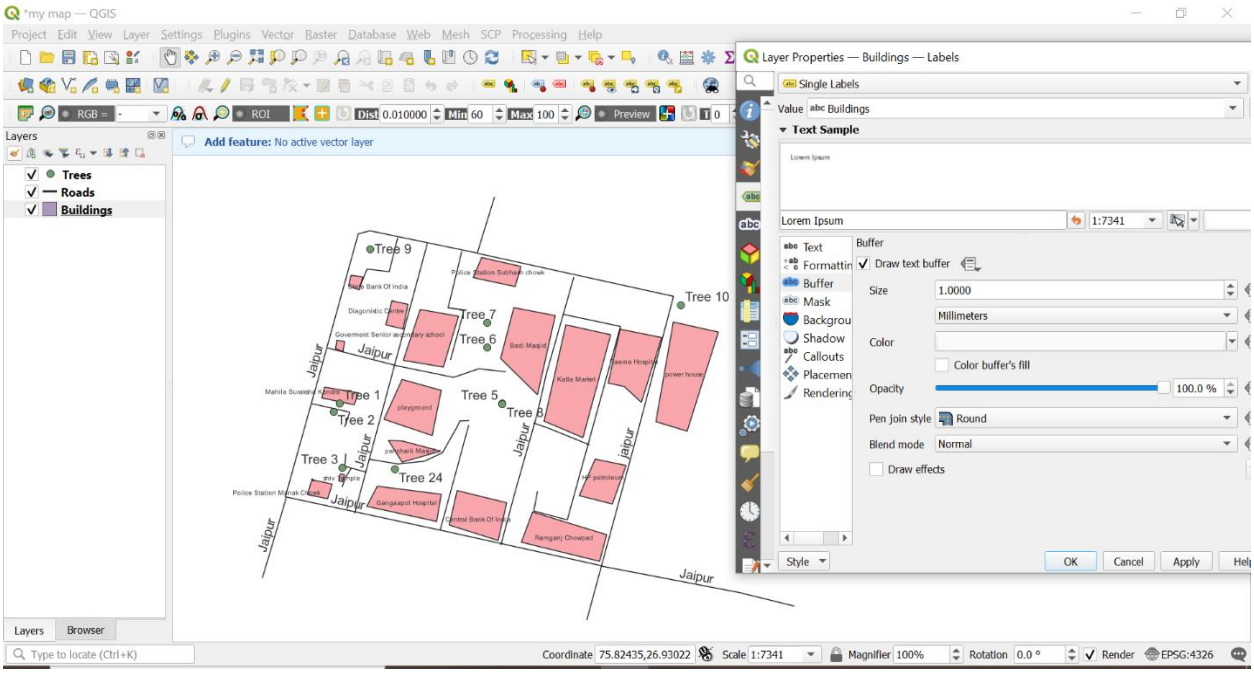


Fig. shows the adding of labelling

8. For moving the labels, In placement select one of the options in mode(like around the centroid etc.) according to our need.Then do it same for the other shape files as per our need so that our map is easily understandable.

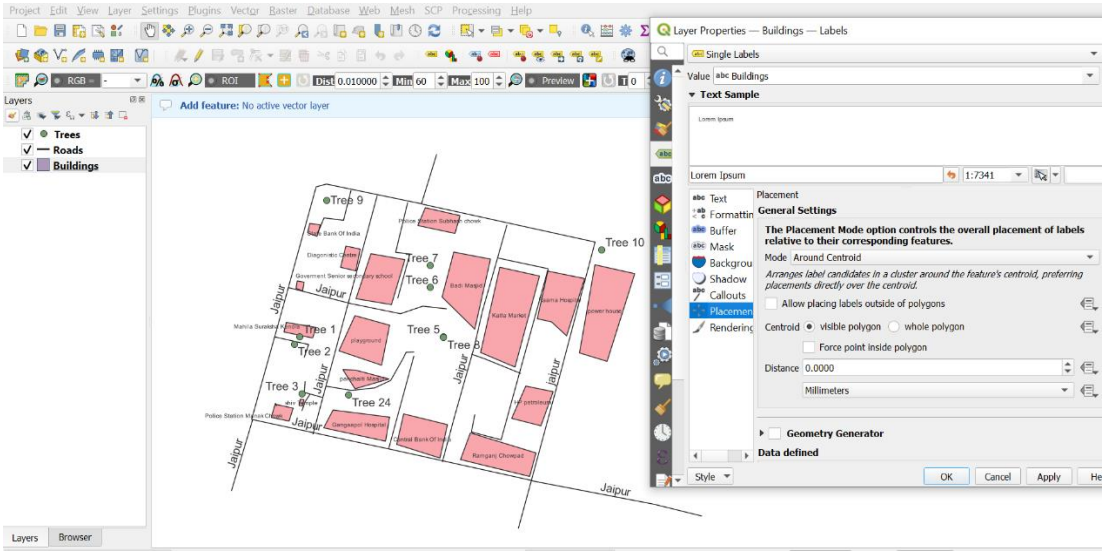
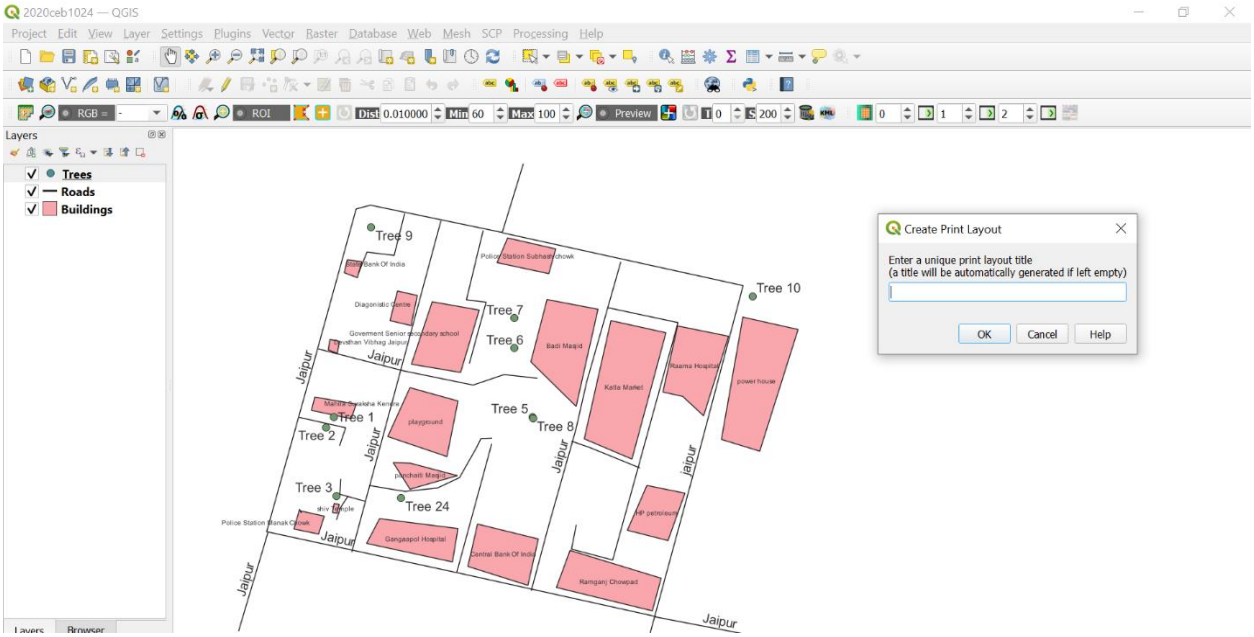


Fig. shows the placement of labels

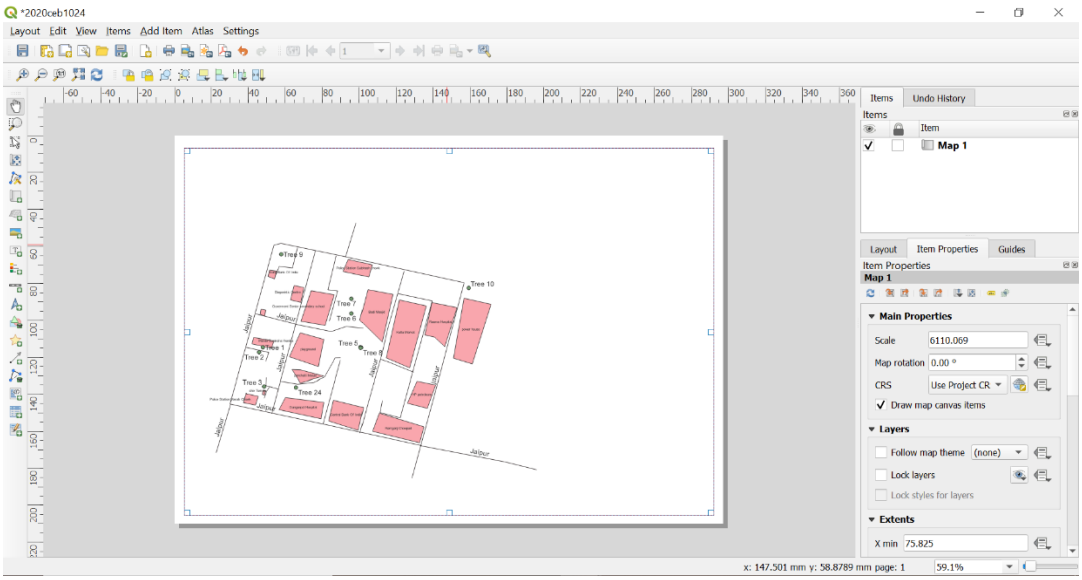
9. Now we go to symbology and give strock colour for boundaries clearly distinguishable and give strock width as per our need for different shape files.

11. I have completed all the processes required for labelling and symbolling and wif we want to add more details then go to the open attributes table and using pen option we edit it.

12. After completing the map we have to print it.So go to project and click on new print layout and give the name of map.



13.After it, a new window is open then select the Add items and I added the map on plane sheet.



14. After that I edited the frame size, grid properties, coordinates as per our requirement such that the map is easy to understand.
15. Now we add the north arrow, scale and label by using the required option in Add items.

16. Now our map is ready in required format.