EGH-404 portfolio 2

Semester 2 2020

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Introduction:

In this portfolio it is asked that the data set used throughout portfolio 1 is now taken into qgis to give it a more practical usage by plotting the points in the data on a map with various different measurements to define the data.

Question 1.

Question 1 asked that the data points were plotted on the map and then colour coded based on the maximum temperature at the specific location. To do this the data set from the last assignment which already had the max temperature of each specific location was loaded into qgis, and using inbuilt functions it was plotted on the streetmap according to a specific colour range based on temperature.

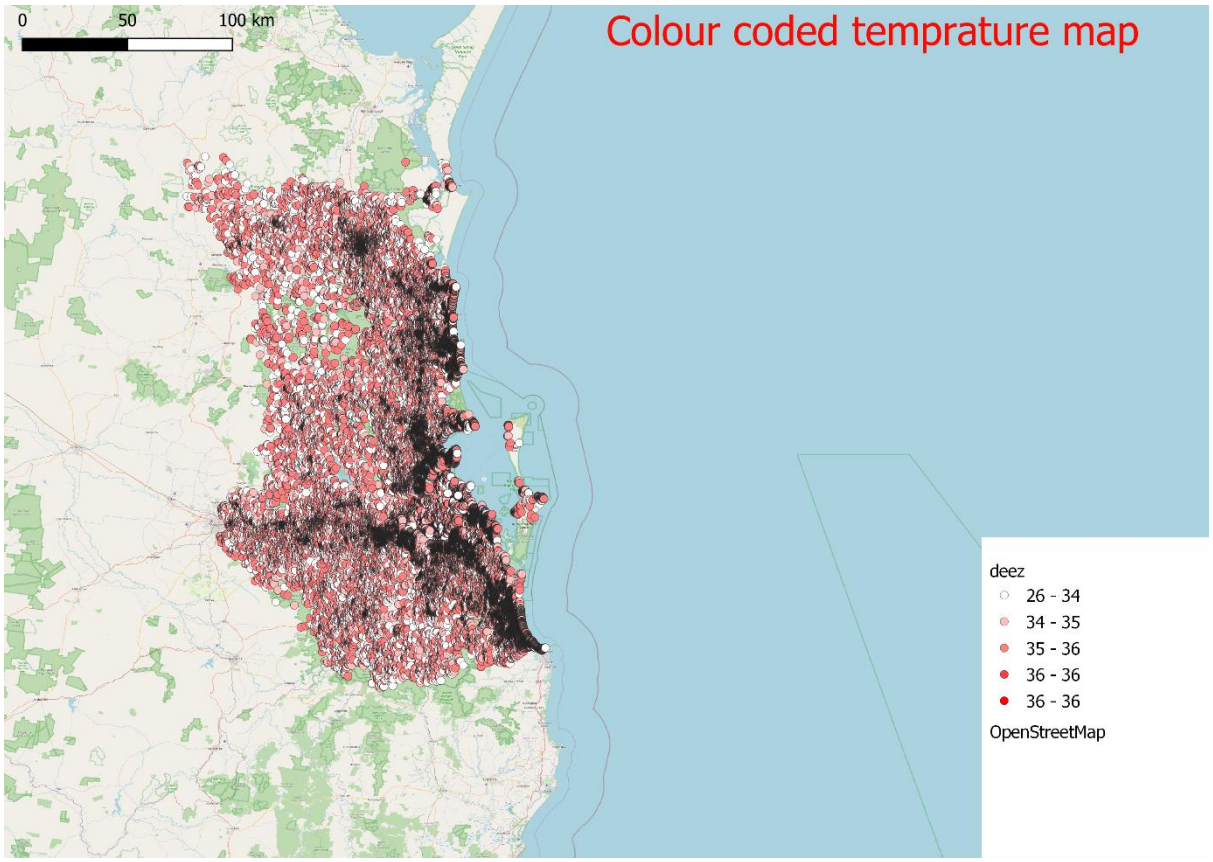

Figure 1. Colour coded map based on Maximum temperatures

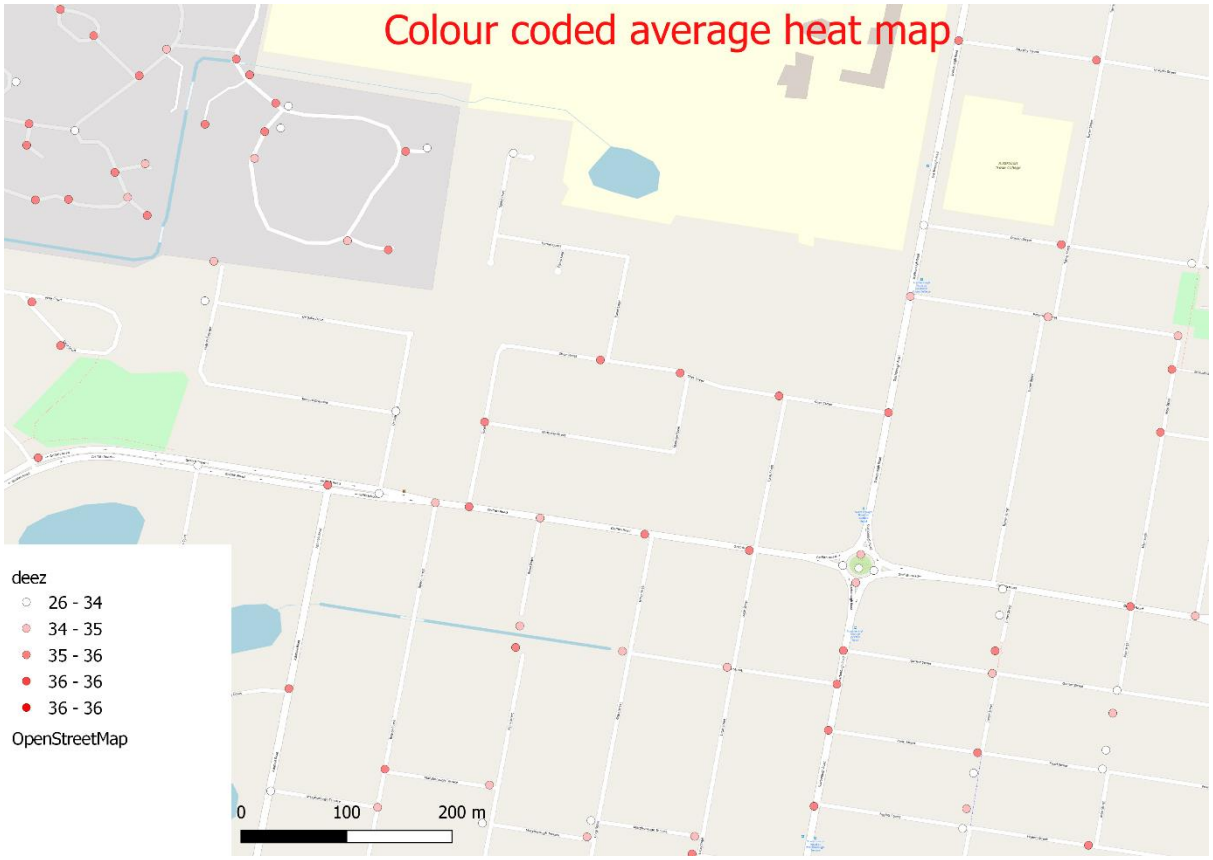

Figure 2. Colour coded map based on Maximum temperatures (zoomed in)

Question 2:

Question 2 asked that a map was created and that points were plotted with varying sizes depending on the minimum rainfall at the specific locations. To do this the same data set from above which has the minimum rainfall for each location was used. An inbuilt qgis function in the graduated tab was used to plot these points with varying sizes based on their value.

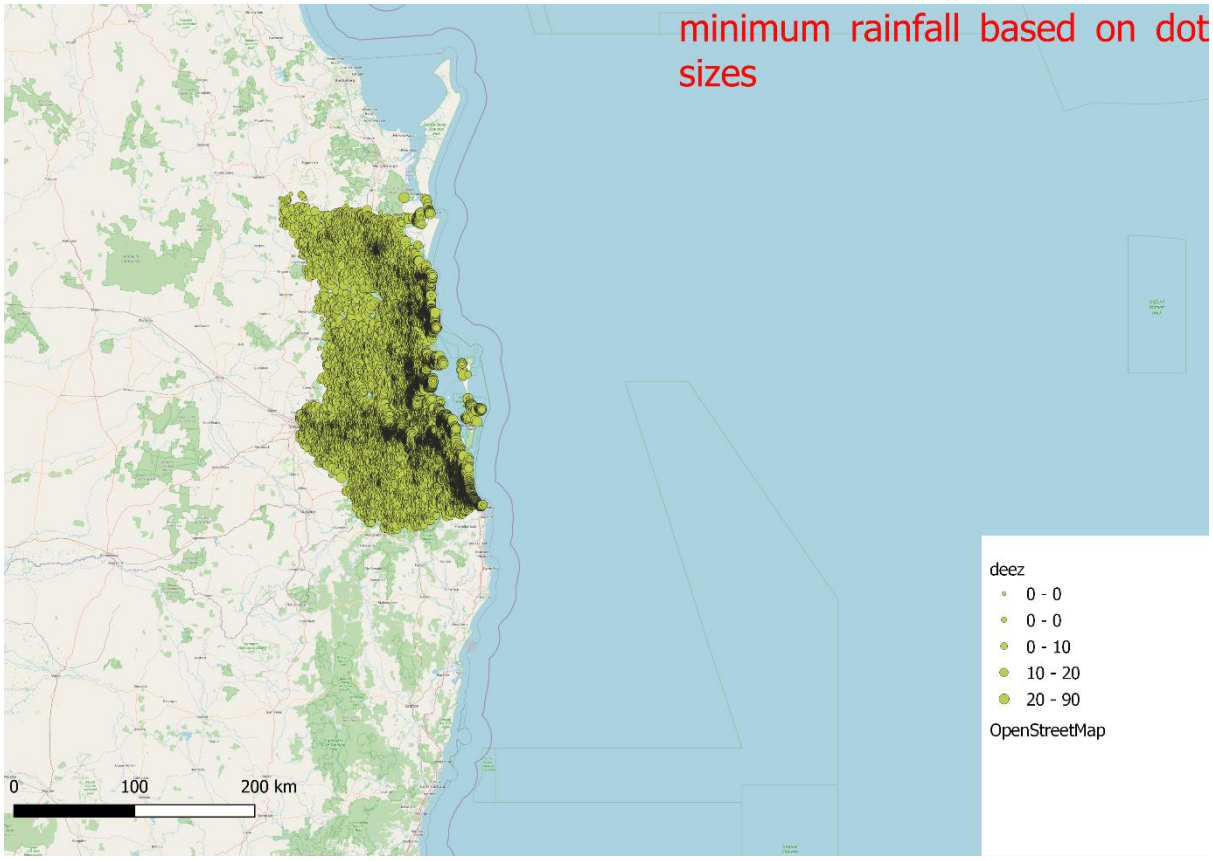

Figure 3. dot size map based on minimum rainfall

Figure 4. dot size map based on minimum rainfall (zoomed in)

Question 3:

In question 3 it was asked that a heatmap was created using the average number of people at each location. Once again the data set that already had locations grouped and had the average number of people at a location was used and subsequently the heatmap function in qgis was used using the average people as a variable was used to create the map.

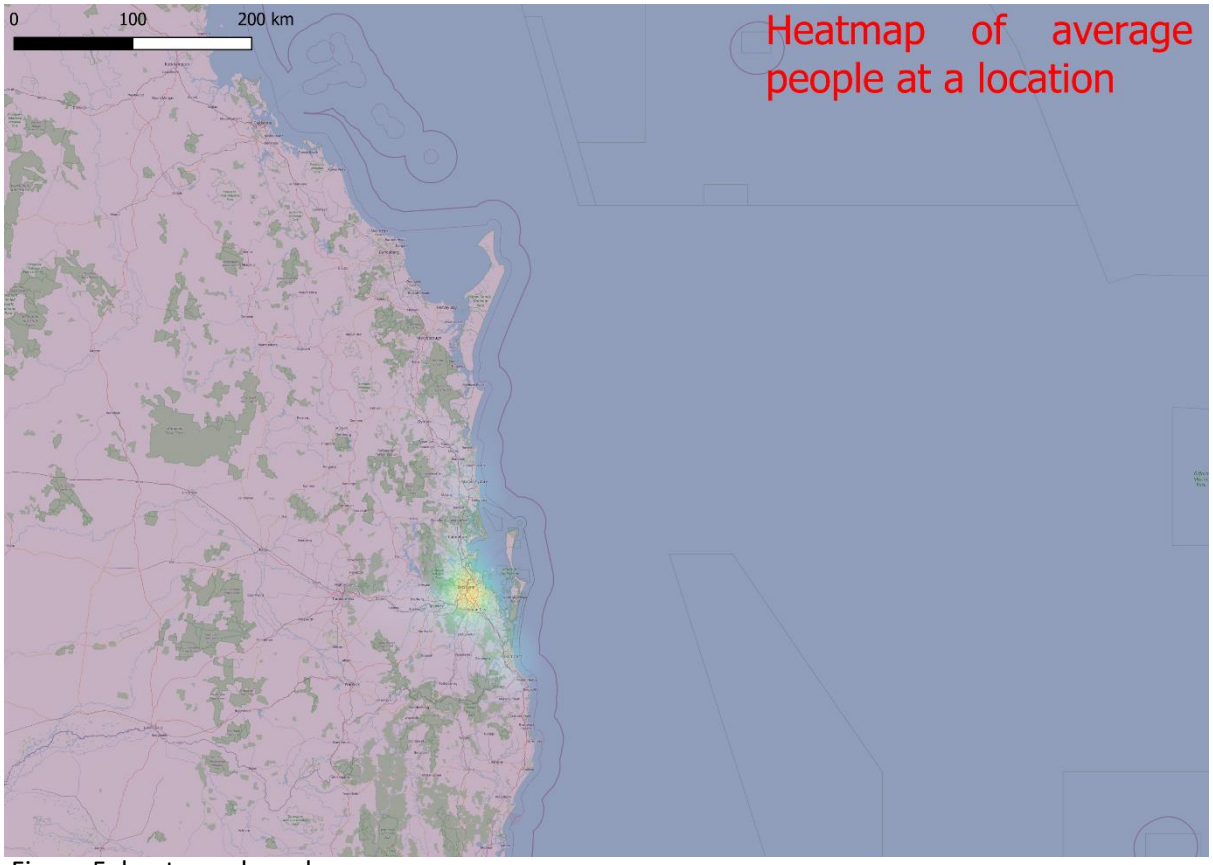

Figure 5. heat map based on average people at a location

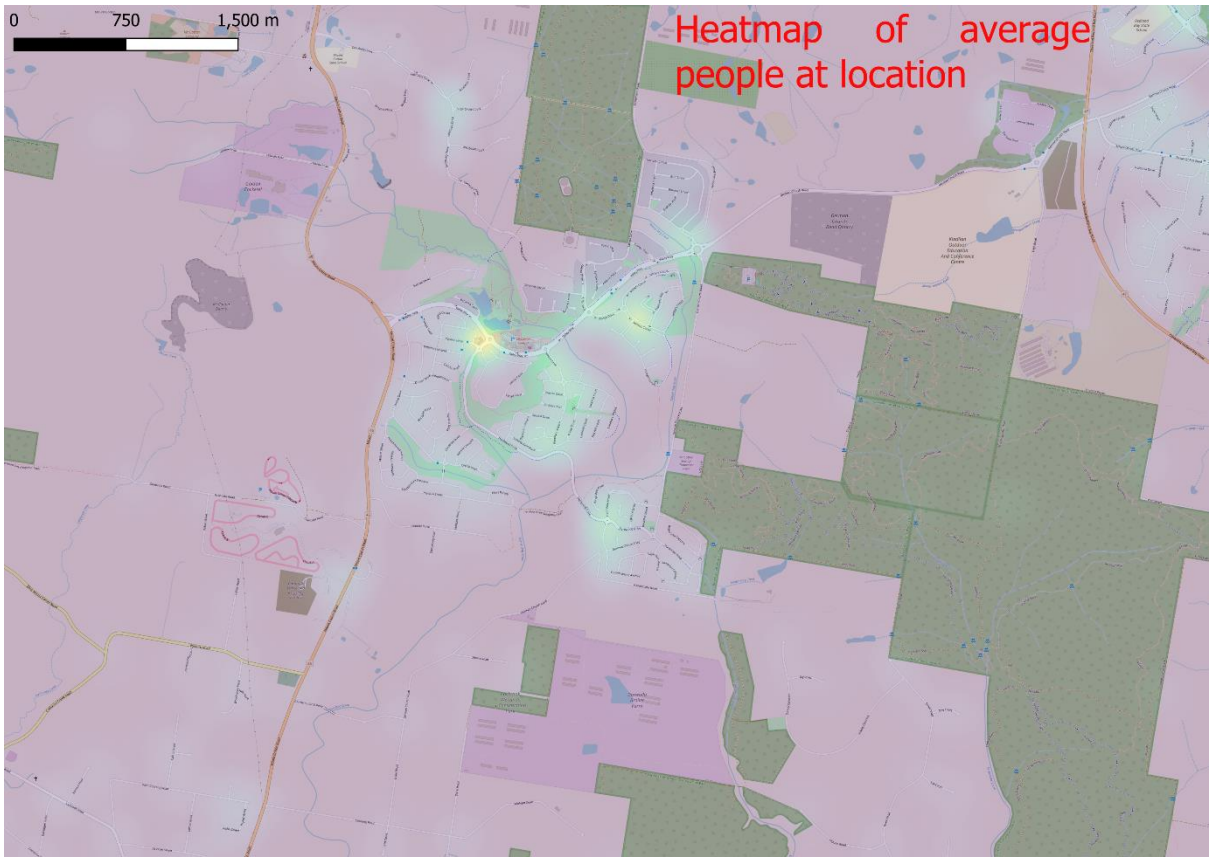

Figure 6. heat map based on average people at a location (zoomed)

Question 4:

Lastly Question 4 asked that a map was made with points plotted with varying colours and sizes based off of the values of sensor value A and B. As this question doesn't ask for any average min or max the original data set is used. Then the same process as in question 1 is used to colour code the dots based off of Sensor value A and then with a quick edit is also changed to include a varying size based off of sensor value B.

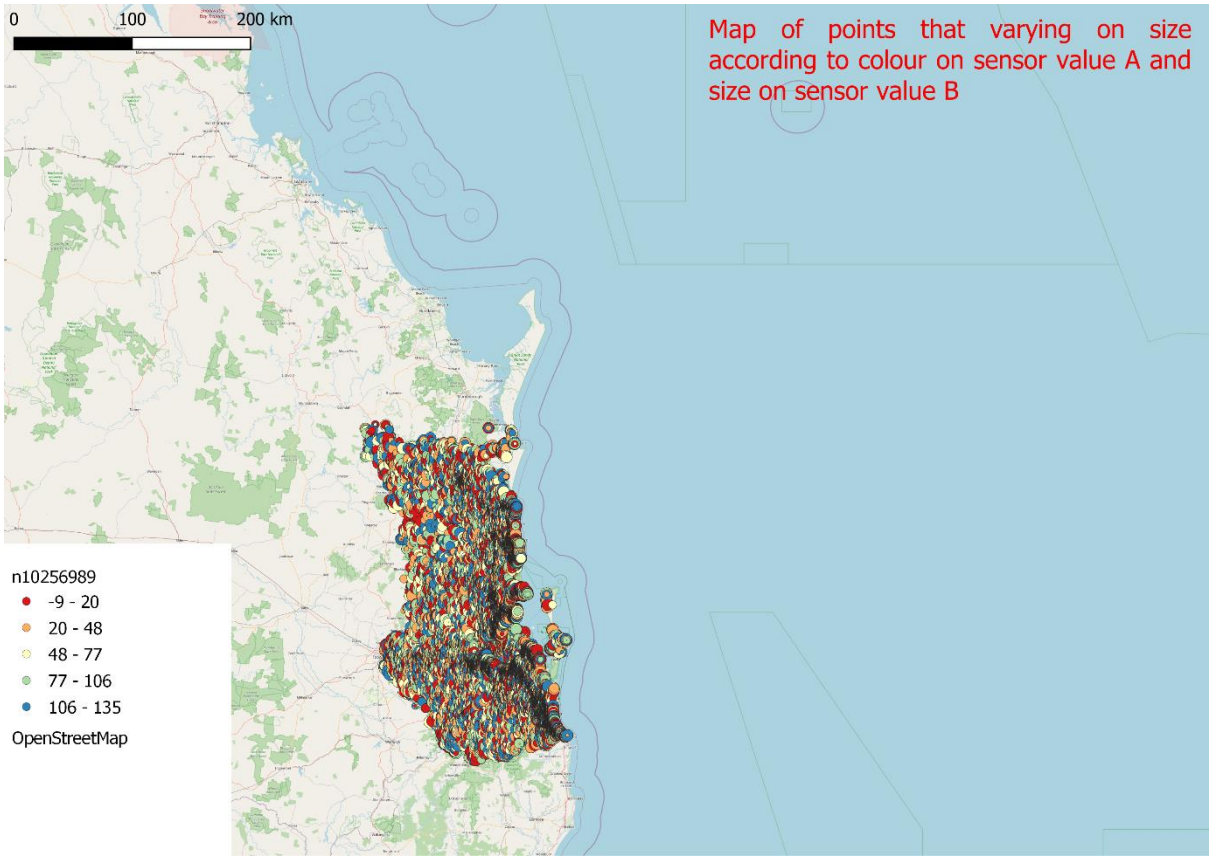

Figure 7. dot map based on value of sensor A and sensor B

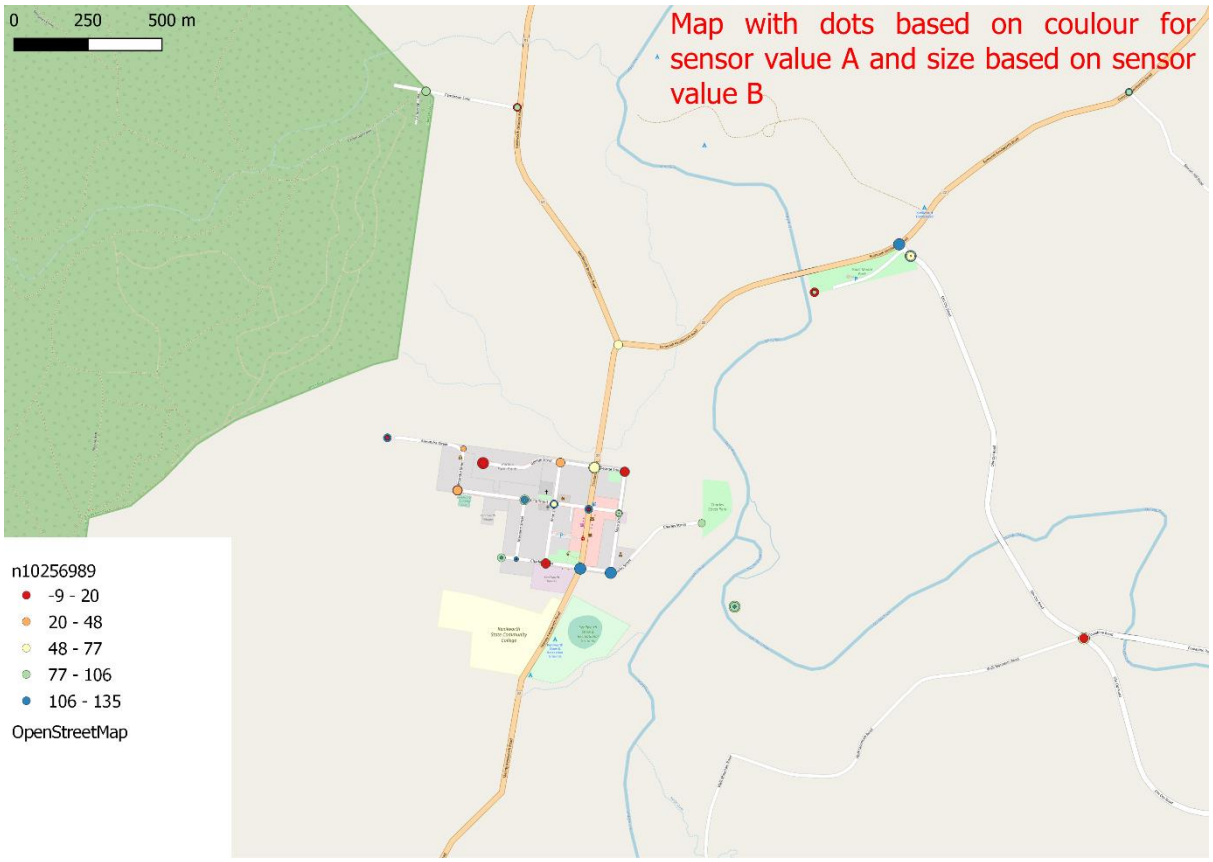

Figure 8. dot map based on value of sensor A and sensor B (zoomed)

Conclusion:

To conclude the above tasks have been completed in qgis to show various types of data on a map using the data set provided in the portfolio.