Below is a list of Cell Phone Towers with their relevant locations in Latitude and Longitude. The Lat/long are such that these cells are quite close to one another. We would like you to write a command line program that would allocate a frequency to each of these cells. The frequency range you can use would be 110 to 115, so essentially 6 unique frequencies. Your program will need to allocate the frequencies in such a way that the same frequency cannot be applied to a cell close to another cell as this would introduce interference.

The idea of this exercise is to allocate frequencies in the most efficient manner such that the cells farthest to another cell can have the same frequency in order to reduce interference. You do not need to represent the below in any UI but a graph with your results is expected. Just a command line utility which when run will produce a frequency allocation plan for each of these cells. The program should be generic such that a new list of cells can be provided, and it will work out what the most efficient frequency allocation for these cells should be.

Cell ID	Easting	Northing	Long	Lat
A	536660	183800	-0.03098	51.53657
B	537032	184006	-0.02554	51.53833
C	537109	183884	-0.02448	51.53721
D	537110	184695	-0.02415	51.5445
E	537206	184685	-0.02277	51.54439
F	537248	185016	-0.02204	51.54735
G	537250	185020	-0.02201	51.54739
H	537267	184783	-0.02185	51.54525
I	537269	183451	-0.02234	51.53328
J	537270	184140	-0.02206	51.53948
K	537356	184927	-0.02052	51.54653
L	537380	184727	-0.02025	51.54472
M	537458	184495	-0.01921	51.54262
N	537604	184134	-0.01725	51.53934
O	537720	184057	-0.01561	51.53862
P	537905	184591	-0.01273	51.54337
Q	537910	184441	-0.01272	51.54202
R	537953	184295	-0.01216	51.5407
S	538050	184245	-0.01078	51.54023

If you need further information please email – Anshul@wimtechnologies.com . Use any programming language of your choice.