These are major tasks involved in my project

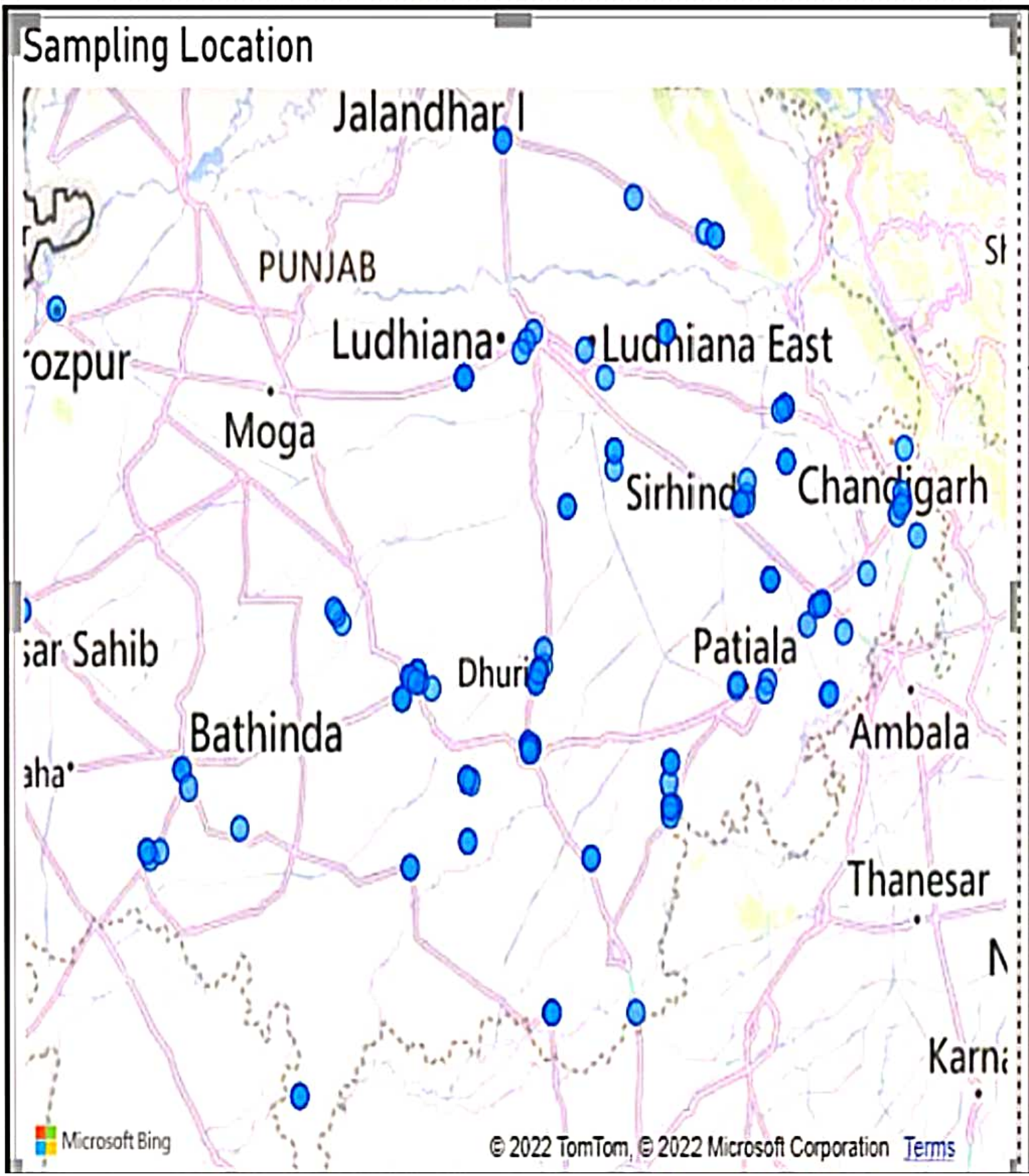
## A)Sorting of Water Quality data

The data is available in Excel format represented with respect to collection sampling points.First the Null data are removed and the points which have not all quality parameters mentioned are being removed.Then the data for around a year is selected and it is being arranged in month wise fashion.

Table 1:Sorting of Water Quality data

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Town Nam | Sampling L | pH[6.5-8.5 | Turbidity[5 | TDS[2000 r | Total Alkar | Total Hard | Calcium[2( | Magnesiur | Chloride[1( | Fluroide[1. | Nitrate[45 | Sulphate[4 | Record Ent | month |
| 2 | Ghanaur | Unnamed | 8.28 | 0.83 | 690 | 188 | 52 | 3 | 4 | 171 | 0.8 | 0 | 141 | 01/01/202 | 1 |
| 3 | Rajpura | , Kharajpu | 7.12 | 3.07 | 200 | 72 | 136 | 29 | 7 | 6 | 0.19 | 3 | 42 | 04/01/202 | 1 |
| 4 | Sangrur | Unnamed | 7.95 | 0.22 | 450 | 324 | 256 | 30 | 34 | 20 | 0.58 | 41 | 35 | 05/01/202 | 1 |
| 5 | Mullanpur | Unnamed | 7.49 | 0.97 | 450 | 356 | 328 | 57 | 39 | 28 | 0.69 | 21 | 17 | 06/01/202 | 1 |
| 6 | Ludhiana | 416 SBS Ro | 7.57 | 0.43 | 420 | 314 | 294 | 65 | 33 | 18 | 0.57 | 41 | 23 | 06/01/202 | 1 |
| 7 | Sirhind | , Nawi Bas | 7.56 | 0.87 | 370 | 316 | 234 | 20 | 27 | 10 | 0.56 | 2 | 26 | 06/01/202 | 1 |
| 8 | Samana | Unnamed | 7.59 | 0.86 | 490 | 224 | 312 | 78 | 32 | 50 | 0.66 | 66 | 39 | 07/01/202 | 1 |
| 9 | Morinda | , Prem Naj | 7.88 | 1.05 | 620 | 448 | 288 | 37 | 34 | 44 | 0.82 | 28 | 31 | 07/01/202 | 1 |
| 10 | Khanauri | Phirni Roa | 8.07 | 0.1 | 550 | 280 | 332 | 52 | 41 | 78 | 0.46 | 16 | 95 | 10/01/202 | 1 |
| 11 | Mullanpur | 4/52 State | 7.52 | 0.35 | 560 | 402 | 384 | 40 | 49 | 54 | 0.48 | 39 | 18 | 11/01/202 | 1 |
| 12 | Payal | Payal Roac | 7.65 | 1.68 | 400 | 316 | 304 | 47 | 32 | 10 | 0.32 | 13 | 6 | 12/01/202 | 1 |
| 13 | Machhiwa | Unnamed | 7.71 | 0.91 | 360 | 172 | 256 | 60 | 40 | 10 | 0.54 | 41 | 44 | 12/01/202 | 1 |
| 14 | Bhadaur | Market M | 7.43 | 0.66 | 840 | 398 | 336 | 33 | 52 | 89 | 0.51 | 33 | 191 | 13/01/202 | 1 |
| 15 | Barnala | Pakka Coll | 7.51 | 0.8 | 910 | 396 | 288 | 27 | 41 | 119 | 0.56 | 29 | 229 | 13/01/202 | 1 |
| 16 | Payal | Street Nur | 7.61 | 0.54 | 360 | 312 | 252 | 36 | 32 | 2 | 0.32 | 0 | 3 | 13/01/202 | 1 |
| 17 | Ghanaur | , , Ghanau | 7.8 | 0.19 | 530 | 236 | 36 | 8 | 0 | 93 | 0.66 | 1 | 114 | 13/01/202 | 1 |
| 18 | Banur | , , Banur, F | 7.52 | 0.2 | 360 | 240 | 172 | 21 | 14 | 21 | 0.36 | 9 | 40 | 13/01/202 | 1 |
| 19 | Sirhind | Unnamed | 7.63 | 0.82 | 390 | 304 | 240 | 33 | 28 | 8 | 0.59 | 2 | 29 | 14/01/202 | 1 |
| 20 | Dirba | 3 NH 71, , I | 8.19 | 1.55 | 1110 | 456 | 284 | 20 | 39 | 156 | 0.83 | 15 | 196 | 17/01/202 | 1 |
| 21 | Bhikhi | , , Bhikhi, I | 7.19 | 1.69 | 210 | 74 | 134 | 31 | 7 | 9 | 0.15 | 2 | 58 | 18/01/202 | 1 |
| 22 | Sardulgarh | , , Sardulgi | 7.41 | 3.29 | 380 | 192 | 226 | 27 | 23 | 49 | 0.53 | 5 | 29 | 20/01/202 | 1 |
| 23 | Samana | #222 Moti | 7.59 | 0.1 | 570 | 288 | 284 | 43 | 28 | 61 | 0.56 | 53 | 62 | 21/01/202 | 1 |
| 24 | Kot fatta | , Kot Fatte | 8.11 | 0.75 | 1350 | 156 | 348 | 101 | 45 | 244 | 0.73 | 5 | 612 | 24/01/202 | 1 |
| 25 | Sangat | , , Sangat, | 7.55 | 1.72 | 230 | 102 | 168 | 35 | 7 | 10 | 0.19 | 4 | 43 | 24/01/202 | 1 |
| 26 | Dhuri | , Subash N | 7.89 | 0.4 | 480 | 358 | 268 | 23 | 28 | 20 | 0.44 | 19 | 52 | 25/01/202 | 1 |
| 27 | Handiaya | , , Handiay | 7.42 | 0.27 | 1160 | 606 | 300 | 22 | 42 | 89 | 1.13 | 28 | 268 | 31/01/202 | 1 |
| 28 | Rajpura | , Chaju Mz | 8.15 | 1.81 | 1380 | 348 | 492 | 86 | 52 | 157 | 0.93 | 75 | 611 | 01/02/202 | 2 |
| 29 | Barnala | , , Barnala, | 7.98 | 0.58 | 990 | 420 | 284 | 27 | 43 | 107 | 0.68 | 28 | 209 | 02/02/202 | 2 |
| 30 | Mullanpur | , Model Tc | 7.79 | 0.2 | 580 | 400 | 378 | 52 | 45 | 50 | 0.5 | 66 | 22 | 03/02/202 | 2 |

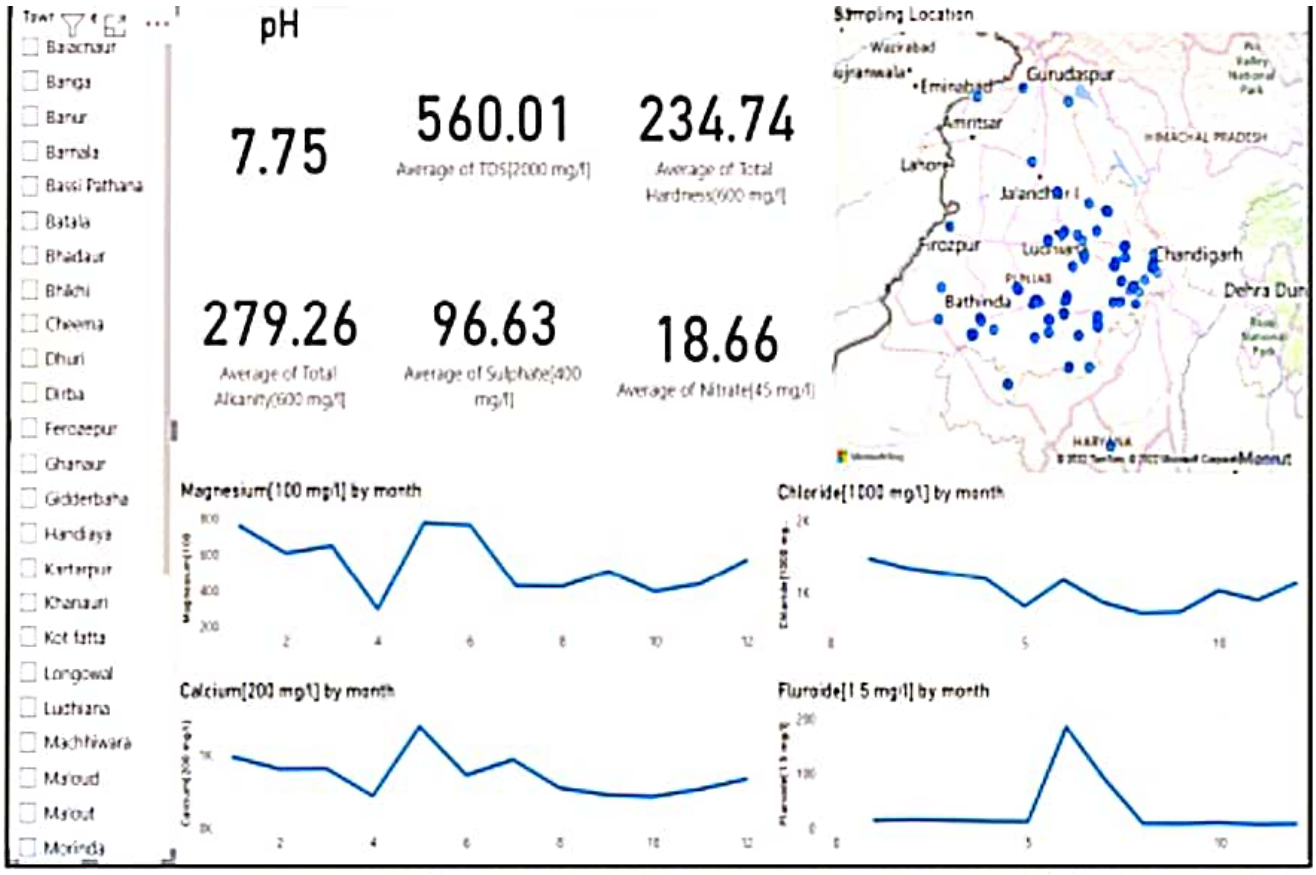
## B) Mapping of Sample Locations



*power BI excel file data can be imported.*

## eating Dashboard using Power BI

Map option is being selected and the imported data is being plotted on map according to Pincode provided in data.If any of the location is selected all the data get refreshed on dashboard for that location.




3) For creating a map chart is used and sampling location is added as a field and based on the number of samples taken at that location, the intensity of the dot colour varies.

Line charts are used for creating graphical representations of different water properties. In the line chart for the x-axis, we choose the data for months and on the y-axis, we choose different water properties.

We also use a slicer in our dashboard that gives us the freedom to switch different town data with just one click.

For presenting some important properties like pH, TDS we use cards.