**Documentation:**

1. Sort the given data
2. Get the pivot table for the given data

Process : I took xmin (minimum value), xmax (maximum value, n (number of bins(can be any value)

t = (xmax – xmin)/n

I formed a table with xmin and xmax. I can’t explain the formula but the formula is in excel

1. Get the histogram for the table(I took pivot chart)
2. Guess the type of distribution
3. The graphs seems to be Lognormal but just to show it is not normal I did for normal distribution as well.
4. I took  **j values(1 to total count of numbers(ex: if count = 500 j = 1 to 500))**
5. I calculated the probabilities using (**(j-0.5)/n)**)
6. I calculated F^(-1) for the selected distribution type
7. Draw q q plot for Finv and Raw data
8. Now calculate chi square value if the distribution seems to be okay
9. Chi square test:

Get a table of xmin and xmax for any number of bins

Calculate observed values for certain number of bins (range can be arbitrary)

Excel formula = sumproduct((A:A>= xmin)\*(A:A< xmax))

Now calculate Expected values. It is probability of the given range multiplied by total count

E = count\*()

E = Probability(x1<=x<=x2)\*n

E = (prob(x2)-prob(x1))\*n

Excel formula = n\*(longnorm(xmax, mean, std)- lognorm(xmin ,mean, std))

Calculate chi0 = ∑( (E-O)^2/E)

Compare Chi0 and Chi(tabulated)

If chi0< chi (tabulated) distribution is accepted.