Task 3: What is the level of measurement of the following variables? [1]

a. The number of downloads of different bands' songs on iTunes.

   → Numerical – Discrete variable.

b. The names of the bands that were downloaded.

   → Categorical – Nominal variable

c. The position in the iTunes download chart.

   → Categorical – Ordinal variable

d. The money earned by the bands from the downloads.

   → Numerical – Continuous – Ratio variable

e. The weight of drugs bought by the bands with their royalties.

   → Numerical – Continuous – Ratio Variable

f. The type of drugs bought by the bands with their royalties.

   → Categorical – Nominal Variable

g. The phone numbers that the bands obtained because of their fame.

   → Categorical – Nominal Variable

h. The gender of the people giving the bands their phone numbers.

   → Categorical – Binary Variable

i. The instruments played by the band members.

   → Categorical – Nominal Variable

j. The time they had spent learning to play their instruments.

   → Numerical – Continuous – Ratio variable

Task 4: Say I own 857 CDs. My friend has written a computer program that uses a webcam to scan the shelves in my house where I keep my CDs and measure how many I have. His program says that I have 863 CDs. Define measurement error. What is the measurement error in my friend's CD-counting device?

Measurement Error → It is difference between a measured value and its actual or true value.

In this example, Actual value = 857 CDs

Measured value = 863 CDs

Measurement Error = 863 – 857 = 6 CDs

So, the measurement error in my friend's CD-counting device is 6 CDs.

Task 5: Sketch the shape of a normal distribution, a positively skewed distribution and a negatively skewed distribution.

https://github.com/gkdsc2020/dsc520statfords