### Python operations on (Q = 9 10 11 12)

- a. Create data subsets for type of post
- b. Merge two subsets
- c. Sort Data on Page total likes
- d. Transposing Data
- e. Melting Data to long format
- f. Casting data to wide format

Facebook metrics Iris data sets Movie data sets Adult data sets

### **Model Building**

#### 1) Heart Deseases

- a. Data cleaning(Remove NA, ?, Negative values etc.)
- b. Error correcting(Outlier detection and removal)
- c. Data transformation
- d. Build Data model using regression and kNN methods and compare accuracy of heart disease prediction.

# 2) Iris data sets

- a. Data cleaning(Remove NA, ?, Negative values etc.)
- b. Error correcting(Outlier detection and removal)
- c. Data transformation
- d. Build Data model using regression and Naïve Bayes methods and compare accuracy of Iris Species Prediction
- 4) Breast Cancer data sets
  - a. Data cleaning(Remove NA, ?, Negative values etc.)
  - b. Error correcting(Outlier detection and removal)
  - c. Data transformation
  - d. Build Data model using regression and Naïve Bayes methods and compare accuracy of benign and malignant tumors in Breast Cancer Dataset

- 5) Adult data sets
  - a. Data cleaning(Remove NA, ?, Negative values etc.)
  - b. Error correcting(Outlier detection and removal)
  - c. Data transformation
  - d. Build Data model using regression and Naïve Bayes methods for prediction of income category (>=50k or <=50k) and compare accuracy Prediction.

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# Visulization:

Visualize the Heart disease dataset by plotting the following graphs using Python. (Define objective for every graph)

- a. Histograms
- b. Dot Plots
- c. Bar Plots
- d. Line Charts
- e. Add Histogram and Scatter plot to box plot.
- a. Histograms
- b. Pie Charts
- c. Box Plots
- d. Scatter Plots
- e. Add boxplots to a scatterplot