1-)**Machine Learning is, building a machine that learns from data and trying to increase accuracy over time by training model with more datas**

**)**2) What are the differences between Supervised and Unsupervised Learning? Specify example 3 algorithms for each of these.
**Supervised learning: the training data you feed to the algorithm includes the desired solutions, called labels**

**3)**What are the test and validation set, and why would you want to use them?
**Test Dataset:**The sample of data used to provide an unbiased evaluation of a final model fit on the training dataset.
**Validation Dataset:**The sample of data used to provide an unbiased evaluation of a model fit on the training dataset while tuning model hyperparameters. The evaluation becomes more biased as skill on the validation dataset is incorporated into the model configuration.

ML depends heavily on data, without data, it is impossible for an AI to learn. It is the most crucial aspect that makes algorithm training possible. No matter how great your AI team is or the size of your data set, if your data set is not good enough, your entire AI project will fail.

5-)A simple way to describe the difference between the continious and discrete variables is to visualize a scatter plot graph ,. a line graph.

6-)Graph is a type of histogram and distribution for petal width(cm) feature. Petal width is a type of continious variable. According to the chart, petal width is most frequently found in the data set at about 0.3(cm) and 1.4(cm) values. However, the distribution appears normal between ranges.