To predict the marks of an student

What is Supervised and Unsupervised ML?

- Supervised Machine Learning is a method where the models are trained using labeled data, it needs supervision to train the model.

- In unsupervised Machine Learning extraction of features and patterns takes place as it includes unlabeled data in the scenario.

Prediction of marks of a student based on the number of hours he/she studies

- The first step is to import the libraries that are required for the implementation of the code operation. Here we import the Pandas to import and analyze data, NumPy to perform the multi-dimensional operation, and matplotlib to perform graphical plot into the context.
- The next phase is to load the data into the program to perform the desired operation. Here we use the pandas to load the excel data and when data is successfully loaded we print a statement to get confirmation.
- Next is to view the data and so we are using the head() function. The head function default view is the top five, but again whatever you want to be in the number of views you can do it as entered, in this case, I have entered six views.

- The next phase is to enter distribution scores and plot them according to the requirement, here we are going to enter the title, x_label, and y_label, and show it according to the desired result.
- The process of dividing the data into attributes and labels is our next task, so we implement the same as below.
- The split of data into the training and test sets is very important as in this time we will be using Scikit Learn's built in method of train_test_split(),
- The very next process is to train the algorithm
- The very next phase is to implement the plotting test data using the previously trained test data
- Predicting the scores for the model is the next important step towards knowing our model

- Comparing the actual versus predicted model to understand our model fitting
- Now, we can test it with an eg.

- Dataset: http://bit.ly/w-data

Summary

Now we have successfully implemented the model and have received the output, the important thing that needs to be kept in mind is that this model works only for the dataset we provided, the results may change if the data is changed and thus we need to optimize the model again.

Thank you