1. Supervised learning is the types of machine learning in which machines are trained using well "labelled" training data, and on basis of that data, machines predict the output. The labelled data means some past data is used for the future prediction.

2. Linear Regression is a form of supervised machine learning where there's a linear relationship between a dependent (y) and one or more independent (x) variables.

3. Train\_test\_split() is a commonly used function in the Sklearn library used to split data into training & testing data.

4. test\_size - the proportion of the dataset to include in the test split which automatically sets the training set(train\_size)

random\_state - controls the shuffling applied to the data before applying the split. Pass an int for reproducible output across multiple function calls.

5. The random\_state, is a parameter is used for initializing the internal random number generator, which will decide the splitting of data into train and test indices in your case.

6. Scikit-learn library contains a lot of efficient tools for machine learning and statistical modelling including classification, regression, clustering and dimensionality reduction.