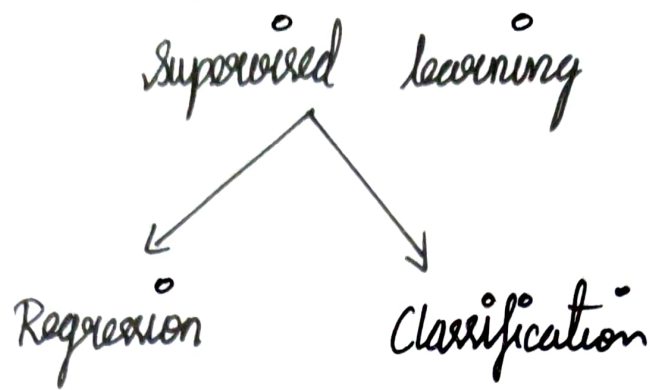


Supervised learning:-

In supervised learning, a machine is trained by using labeled data.

When they contain both i/p & o/p parameters then it is said to be labeled data.

"Data has already been tagged with correct answer".



Both regression and classification is used for predictive modelling.

Regression :-

→ They are used for continuous data.

→ The mapping function is used for the assignment of values to continuous output.

eg:-

"What is the temperature going to be tomorrow".

Classification :-

→ They are used for discrete data.

→ The mapping function is used for assigning values to predefined groups.

eg:- "Will it be cold or tomorrow"

Types of regression algorithm :-

- Simple linear regression
- Multiple linear regression
- Polynomial regression
- Support Vector regression
- Decision tree regression
- Random forest regression

Types of classification algorithm :-

- Logistic Regression
- K-NN
- Support Vector Machines
- Kernel SVM
- Naïve Bayes
- Decision Tree classification
- Random Forest classification

∴ Mapping function is a function or mathematical expression applied on input data that transforms human understandable qualitative/descriptive into machine understandable categorical data