

# Supervised Learning

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 input data is already tagged with the correct output.

In supervised learning, the training data provided to the machines work as the supervisor that teaches the machines to predict the output correctly. It applies the same concept as a student learns in the supervision of the teacher.

Supervised learning is a process of providing input data as well as correct output data to the machine learning model.

The aim of a supervised learning algorithm is to **find a mapping function to map the input variable(x) with the output variable(y).**

In the real-world, supervised learning can be used for **Risk Assessment, Image classification, Fraud Detection, spam filtering, etc.**