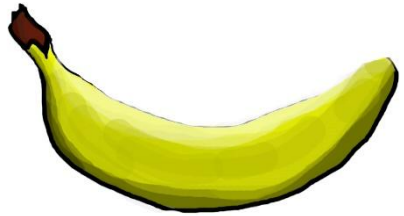
Supervised Learning

Supervised learning

- Supervised learning as the name indicates a presence of supervisor as teacher.
- In which we teach or train the machine using data which is well labeled that means some data is already tagged with correct answer.
- After that, machine is provided with new set of examples(data) to produce correct outcome from labeled data.
- For instance,
  - Suppose you are given an basket filled with different kinds of fruits.

Supervised learning

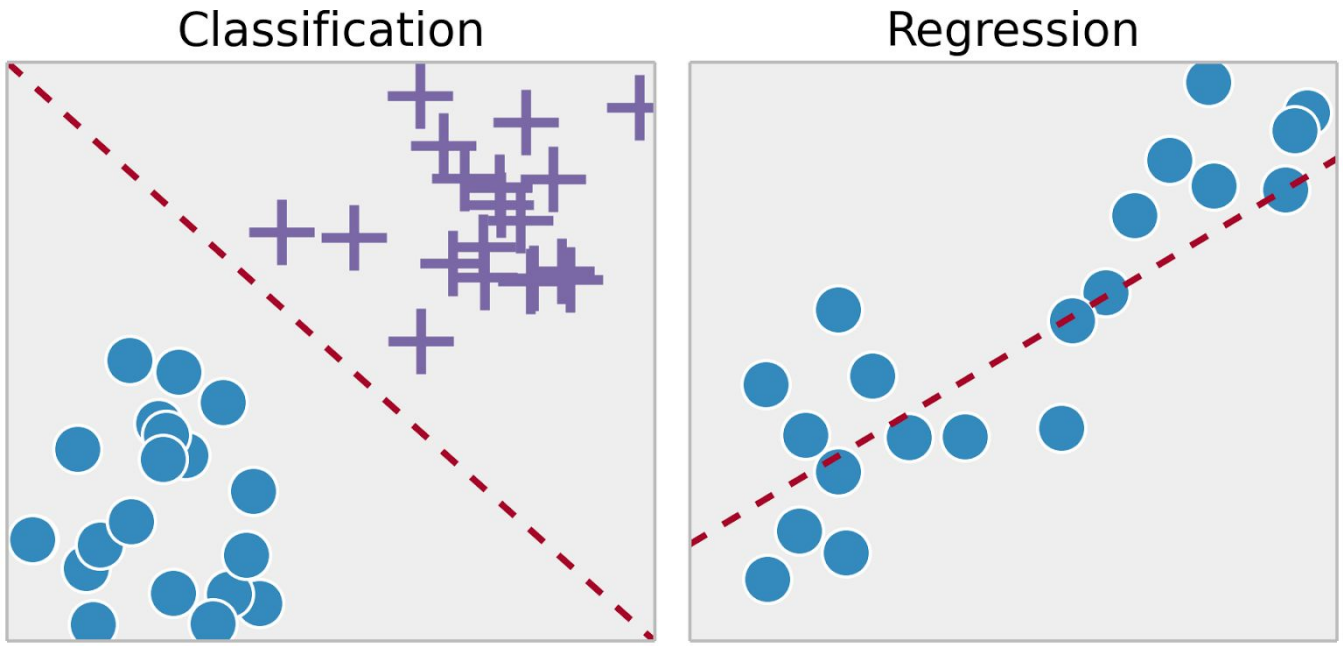
- Now the first step is to train the machine with all different fruits one by one like this:
  - If shape of object is rounded having color Red then it will be labelled as –Apple.
  - If shape of object is long curving cylinder having color Green-Yellow then it will be labelled as –Banana.
- Now suppose after training the data, you have given a new separate fruit say Banana from basket and asked to identify it.



- Since machine has already learnt the things from previous data and this time have to use it wisely.
- It will first classify the fruit with its shape and color, and would confirm the fruit name as BANANA and put it in Banana category.
- Thus machine learns the things from training data(basket containing fruits) and then apply the knowledge to test data(new fruit).

Supervised learning

- Classification: A classification problem is when the output variable is a category, such as “Red” or “blue” or “disease” and “no disease”.
- Regression: A regression problem is when the output variable is a real value, such as “dollars” or “weight”.




Thank
you !!!