PRIOR – KNOWLEDGE

MACHINE LEARNING PROBLEMS :

- **CLASSIFICATION**
- **REGRESSION**
- **CLUSTERING**

CLASSIFICATION:

Predict the category of new observation. Classification is **a process of categorizing a given set of data into classes**, It can be performed on both structured or unstructured data. The process starts with predicting the class of given data points. The classes are often referred to as target, label or categories. The application of classification medical diagnosis to is sick or not.

1. Qualitative output
2. Pre-defined classes

REGRESSION:

Regression is **a technique for investigating the relationship between independent variables or features and a dependent variable or outcome**. It's used as a method for predictive modelling in machine learning, in which an algorithm is used to predict continuous outcomes

PREDICTORS ⟶ REGRESSION FUNCTION ⟶ RESPONSE

Estimate the previous inputs and outputs on linear.

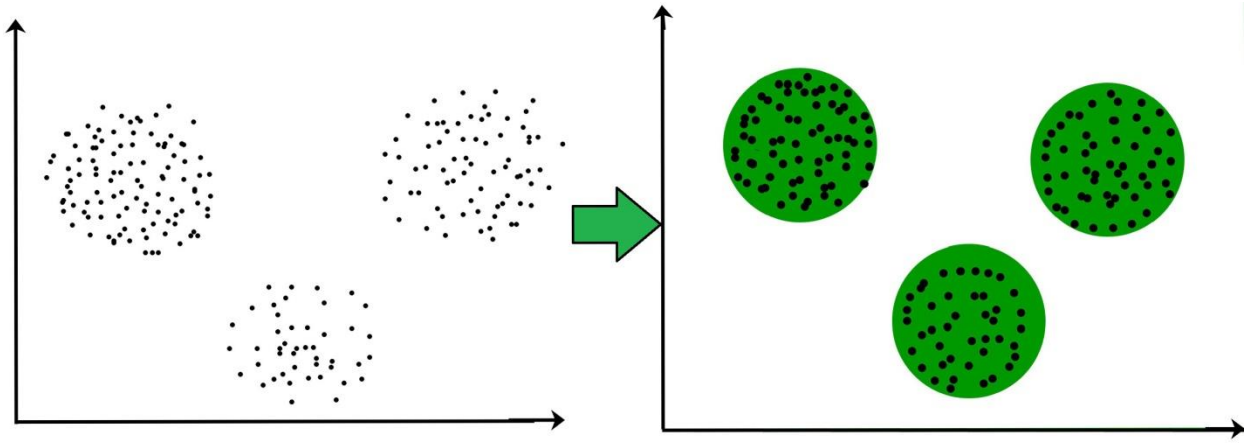
Regression application are payment is credit score,time for subscription.

Previous input and output observation.

CLUSTERING:

Clustering is the task of dividing the population or data points into a number of groups such that data points in the same groups are more similar to other data points in the same group and dissimilar to the data points in other groups. It is basically a collection of objects on the basis of similarity and dissimilarity between them.

The most popular clustering were used as **K-MEANS CLUSTERING :**



K-MEANS CLUSTERING