PRIOR KNOWLEDGE

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Project Name	University Admit Eligibility Predictor

Supervised and unsupervised learning:

Supervised Learning:

In Supervised Learning, a machine is trained using ‘labeled’ data. Datasets are said to be labeled when they contain both input and output parameters. In other words, the data has already been tagged with the correct answer. So, the technique mimics a classroom environment where a student learns in the presence of a supervisor or teacher. On the other hand, unsupervised learning algorithms let the models discover information and learn on their own.
Supervised machine learning is immensely helpful in solving real-world computational problems. The algorithm predicts outcomes for unforeseen data by learning from labeled training data. Therefore, it takes highly-skilled data scientists to build and deploy such models. Over time, data scientists also use their technical expertise to rebuild the models to maintain the integrity of the insights given.

Unsupervised Learning:

Unsupervised learning, also known, uses machine learning algorithms to analyze and cluster unlabeled datasets. These algorithms discover hidden patterns or data groupings without the need for human intervention. Its ability to discover similarities and differences in information make it the ideal solution for exploratory data analysis, cross-selling strategies, customer segmentation, and image recognition.

Clustering, Classification and Regression :

In the field of machine learning we all know the type of problems are different, sometimes we predict the value of the previous set of data – Where data learns from available dataset, Or sometimes grouping them into some cluster. So today we are going to see what these terms

Clustering, Classification and Regression means in the Data science field. Let's dive into this concept. Generally machine learning algorithms are categorized on the basis of output type and type of problem that need to be addressed.
So these algorithm are divided into three categories –

1. Classification
2. Regression
3. Clustering Classification

Classification:

Classification is the type of supervised machine learning. For any given input, the classification algorithm helps in the prediction of the class of the output variables. There can be multiple types of classification – binary classification, multi-class classification. Types of classification – K – Nearest Neighbour Logistic regression Decision tree Random forest Naive Bayes SVM (Support vector machine)

Regression :

Regression is the type of supervised machine learning. When the output is continuous like age, height etc. one of very popular regression algorithms is Linear Regression. Types of Regression – Linear Regression Ridge Regression Lasso

Clustering :

Clustering is an unsupervised machine learning algorithm, it is used to group data point having similar characteristics as clusters. Clustering is divided into two groups 1. Hard clustering – In hard clustering, the data point is assigned to one of the clusters only. 2. Soft clustering – It provides a probability of a data point to be in each of the clusters.

Python Flask :

Flask Tutorial provides the basic and advanced concepts of the Python Flask framework. Our Flask tutorial is designed for beginners and professionals. Flask is a web framework that provides libraries to build lightweight web applications in python. It is developed by Armin Ronacher who leads an international group of python enthusiasts (POCCO).

What is Flask?
Flask is a web framework that provides libraries to build lightweight web applications in python. It is developed by Armin Ronacher who leads an international group of python enthusiasts (POCCO). It is based on the WSGI toolkit and jinja2 template engine. Flask is considered as a micro framework.