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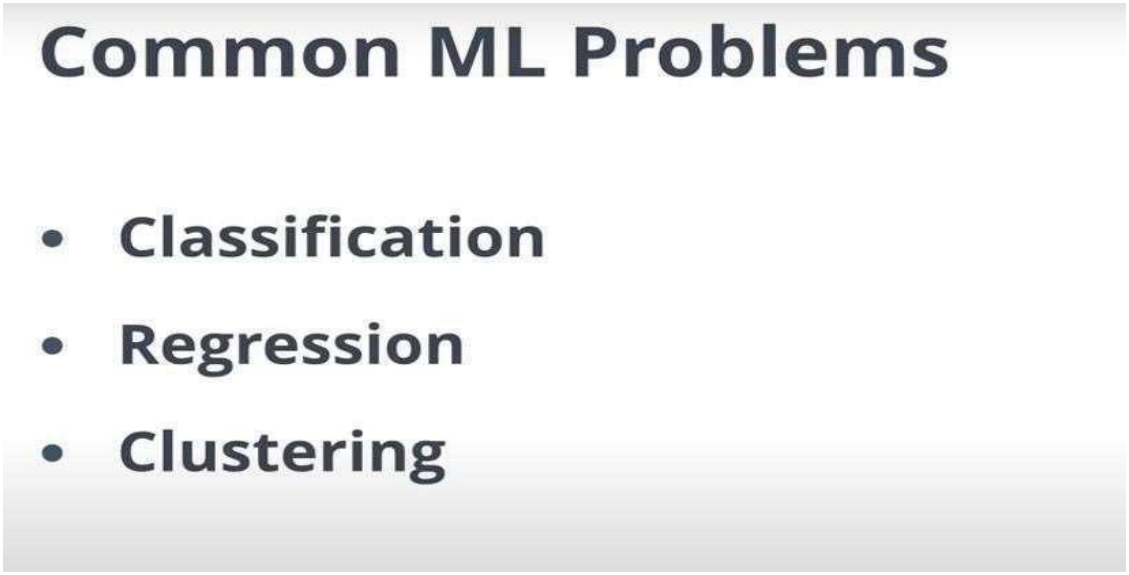
TITLE	FERTILIZER RECOMMENDATION SYSTEM FOR DISEASE PREDICTION

Supervised and unsupervised learning:

In Supervised Learning, A machine is trained using "labelled" data in supervised learning. When input and output parameters are present, a dataset is said to be labelled. In other words, the data already has the right answer associated with it.



Unsupervised learning, also known analyses and clusters unlabeled datasets using machine learning algorithms. These algorithms identify hidden patterns or data clusters without the assistance of a human. It is the appropriate solution for exploratory data analysis, cross-selling techniques, consumer segmentation, and image identification due to its capacity to find similarities and differences in information.

Clustering, Classification and Regression :

We are all aware that many types of challenges arise in the field of machine learning. In some cases, we estimate the value based on a prior set of data, in which case the data are learned from an existing dataset. Therefore, today we will examine the definitions of Clustering, Classification, and Regression in the context of data science. Let's explore this idea further.

Machine learning algorithms are typically categorised based on the output type and the sort of problem that needs to be solved. So these algorithm are divided into three categories –

1. Classification
2. Regression
3. Clustering

Classification : –

Classification is a sort of supervised machine learning that aids in the prediction of the class of the output variables for each given input.There can be multiple type of classification are – binary classification, multi-class classification.

Types of classification –

- K – Nearest Neighbour
- Logistic regression
- Decision tree
- Random forest
- Naive Bayes
- SVM (Support)

Regression : –

When the output is continuous, like age, height, etc., regression is a sort of supervised machine learning. One particularly well-liked regression approach is linear regression.

Types of Regression –

- Linear Regression
- Ridge Regression
- Lasso

Clustering : – Clustering is unsupervised machine learning algorithm, it is used togroup data point having similar characteristics as cluster.

Clustering is divided into two groups

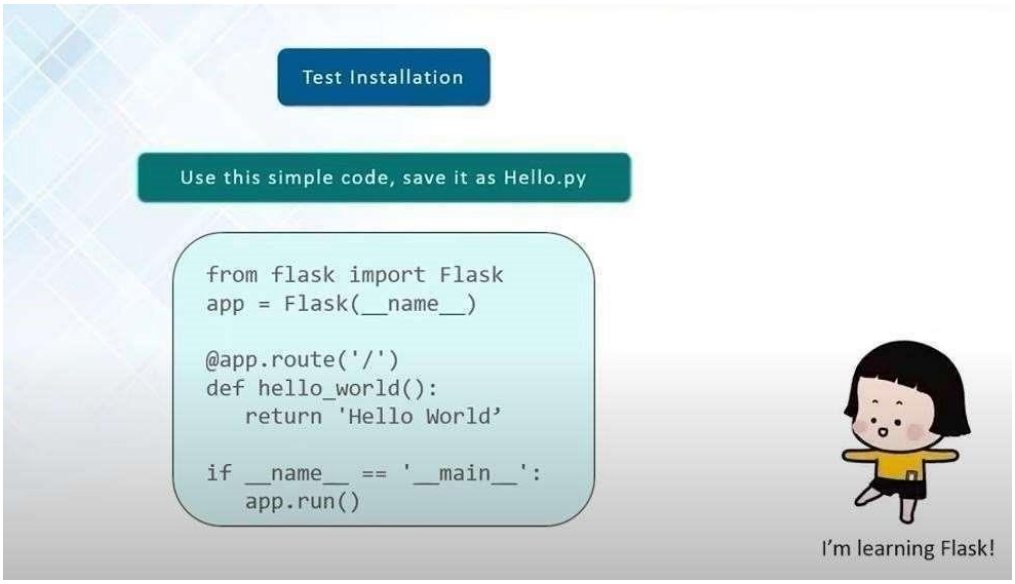
1. Hard clustering – In hard clustering, the data point is assigned to one of theclusters only.
2. Soft clustering – It provides a probability likelihood of a data point to be ineach of the clusters.

Python Flask :

The Python Flask framework's fundamental and advanced topics are covered in the Flask Tutorial. Both pros and amateurs can benefit from our Flask tutorial.

A web framework called Flask offers libraries for creating simple web applications in Python. It is created by Armin Ronacher, the head of a global community of Python fans (POCCO). The Python Flaskframework's fundamental and sophisticated principles are covered in the Flask Tutorial. Both pros and amateurs can benefit from our Flask tutorial.

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?

A web framework called Flask offers libraries for creating simple web applications in Python. It is created by Armin Ronacher, the head of a global community of Python fans (POCCO).It is based on WSGI toolkit and jinja2 template engine. Flask is considered as a micro framework.