CODE BASICS

DEMYSTIFY AI:
MACHINE LEARNING

JARGONS

What is Machine Learning?

1 **Training** – Process of teaching a machine learning model to make predictions or decisions.

2 **Inference** – Process of using a trained ML model to make predictions or decisions based on new, unseen data.

Classification
vs
Regression

1 **Regression:** A machine learning task that involves predicting a continuous numerical outcome, such as house prices or stock values.

2 **Categorical:** Relating to data that can be divided into specific groups or categories, such as 'red' or 'blue', 'male' or 'female'.

3 **Continuous:** Relating to numerical data that can take on any value within a range, often represented by intervals on a scale.

4 **Labeled Dataset:** A collection of data where each instance is tagged with the correct answer or outcome, used to train machine learning models.

Supervised vs Unsupervised Learning

1 **Supervised Learning**: A type of machine learning where the model is trained on a labeled dataset, learning to make predictions based on input–output pairs.

2 **Unsupervised Learning**: A type of machine learning that deals with input data without labeled responses, aiming to find hidden structures or patterns in the data.

ML Algorithms Overview

1 **Jupyter Notebook:** Jupyter Notebook is an interactive computing environment that enables users to create and share documents containing live code, equations, visualizations, and text.

2 **Decision Tree:** A Machine learning algorithm which predicts the outcome based on input features by classifying the data into iterative branches with each node acting like a decision point.

3 **Entropy:** Entropy measures the impurity or disorder in the dataset. Lower the entropy, lower the disorder.

Tooling for ML

1 **Library:** A module within Python (in the context of Python) which can be installed to get specific machine learning activities done.

2 **Cloud:** Virtual space on the internet which stores, processes and analyzes large datasets which removes the need of having all that resources in the local computer.