ASSIGNMENT 1

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BATCH: Machine Learning and AI
Batch A3

1. What is Machine Learning?

-> Machine learning (ML) is a type of artificial intelligence (AI) that allows software applications to become more accurate at predicting outcomes without being explicitly programmed to do so. Machine learning algorithms use historical data as input to predict new output values.

2. Explain the difference between Machine Learning, Deep Learning and AI.

-> * Deep Learning: The subset of machine learning composed of algorithms that permit software to train itself to perform tasks, like speech and image recognition, by exposing multilayered neural networks to vast amounts of data.

* Machine learning: Machine learning is an application of AI that includes algorithms that parse data, learn from that data, and then apply what they've learned to make informed decisions.

An easy example of a machine learning algorithm is an on-demand music streaming service. For the service to make a decision about which new songs or artists to recommend to a listener

*AI: Any technique that enables computers to mimic human intelligence, using logic, if-then rules, decision trees, and machine learning (including deep learning)

3. What are different types of Machine Learning Algorithms?

->* Unsupervised machine learning algorithms:

With the available set of unlabelled and unstructured data, the machine identifies and infers a hidden pattern of the data.

*Reinforcement machine learning algorithms:

Allows machines and software agents to automatically determine the ideal behavior within a specific context in order to maximize its performance.

*Supervised machine learning algorithms:

With the knowledge of a previous set of labelled input and output data, the machine develops a correlation which can predict the outputs for such input values in the near future.