# **DAY #1**

By
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&
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#### About Us

#### **Nurul Akter Towhid**

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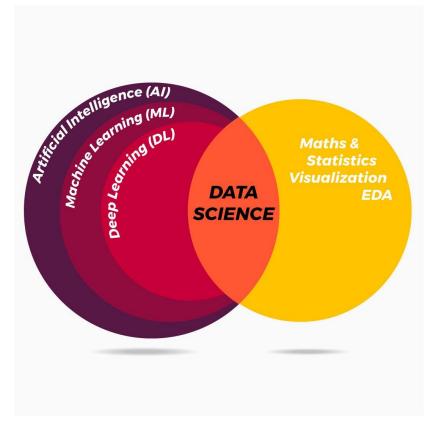
#### Course Logistics

- Class will be conducted on Zoom.
- Classes will be theoretical as well as practical.
- Class Material will be uploaded in Google Drive.
- Code will be pushed in github (<a href="https://github.com/Towhid1/upskill\_ml">https://github.com/Towhid1/upskill\_ml</a>).
- There will be some assignments.
- Class will be held 2 days in a week.

Sunday & Thursday at 7:30 PM

## Artificial Intelligence (AI)

The approximation and augmentation to Human Intelligence



### Machine Learning

Field of study that gives computers the ability to learn without being explicitly programmed.

## Types of Machine Learning (ML) algorithms

- Supervised Learning
- Unsupervised Learning

Also Reinforcement Learning

#### **Labeled Data**

| Date   | Max Temp | Min Temp | Humidity | Rainfall | Outlook |
|--------|----------|----------|----------|----------|---------|
| 4-Nov  | 41       | 29       | 76       | 0        | cloudy  |
| 5-Nov  | 50       | 35       | 85       | 0        | cloudy  |
| 6-Nov  | 46       | 25       | 73       | 0        | cloudy  |
| 7-Nov  | 55       | 33       | 79       | 0        | cloudy  |
| 8-Nov  | 60       | 40       | 78       | 0        | cloudy  |
| 9-Nov  | 41       | 27       | 74       | 0        | cloudy  |
| 10-Nov | 55       | 37       | 73       | 0        | sunny   |
| 11-Nov | 43       | 27       | 54       | 0        | sunny   |
| 12-Nov | 43       | 39       | 62       | 0        | sunny   |

#### Training ML Model

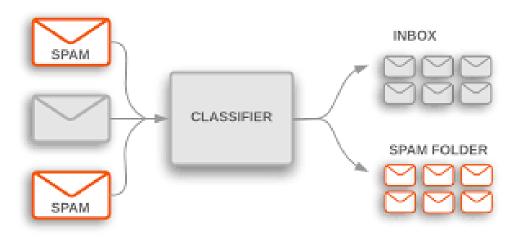


**Supervised Learning**: The algorithm learns on labeled dataset.

**Unsupervised Learning**: Learns on unlabeled dataset.

#### Classification

#### Discrete valued output (0 for Spam, 1 for Inbox)



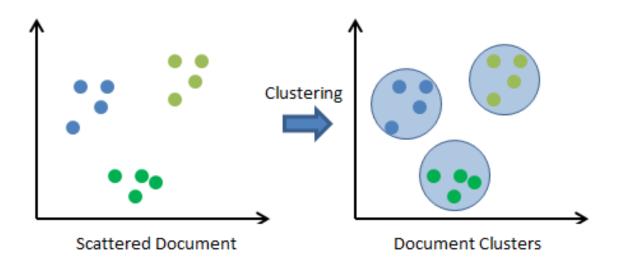
#### Regression

#### Predict continuous valued output (price)



### Clustering

It is a **Machine Learning** technique that involves the grouping of data points.



#### Jupyter Notebook Installation

Download link: <a href="https://www.anaconda.com/products/individual">https://www.anaconda.com/products/individual</a>

\*\*\* Download and install: Python 3.8

#### **Tutorial**

Windows: <a href="https://youtu.be/Hab2XntHZBQ">https://youtu.be/Hab2XntHZBQ</a>

Mac: <a href="https://youtu.be/daVgEXjv6DE">https://youtu.be/daVgEXjv6DE</a>

Linux: <a href="https://youtu.be/DY0DB\_NwEu0">https://youtu.be/DY0DB\_NwEu0</a>