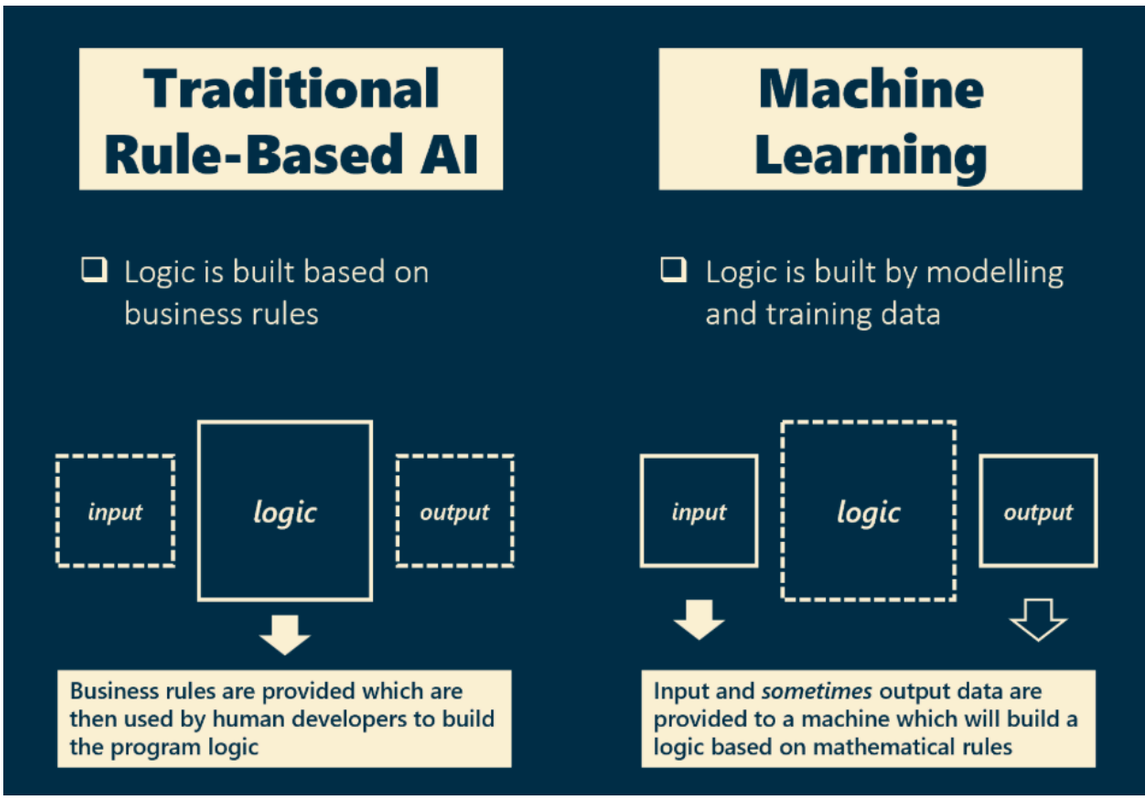
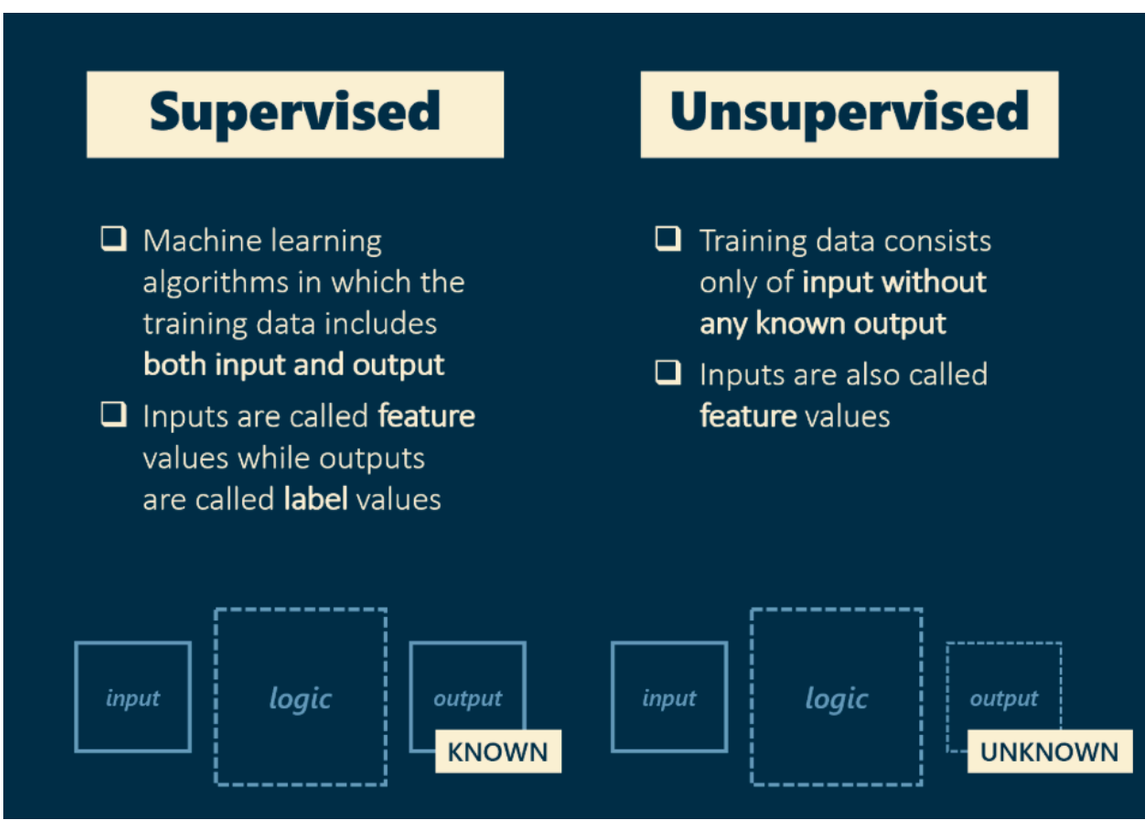
# MODULE 3: Machine Learning



## Regression

- The label predicted by the model is a numeric value
- Example: A model that predicts the price of an apartment based on the size, number of rooms, barangay, and date of building

## Binary Classification

- The model predicts whether a record is an instance of a specific class or category
- Example: A model that predicts whether a customer will cancel their subscription

## Multiclass Classification

- The model predicts whether a record is an instance of one of multiple classes or categories
- Example: A model that classifies whether a social media post is positive, negative, or neutral

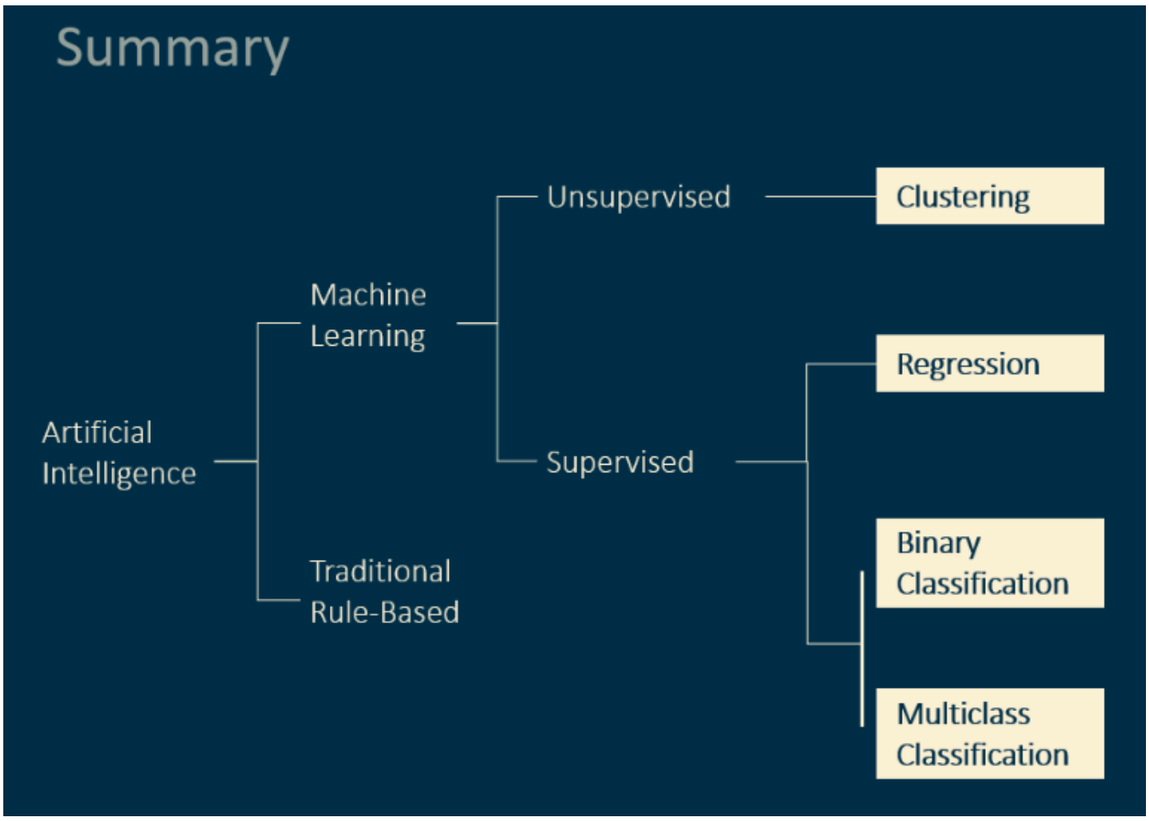
# Unsupervised Machine Learning

## Clustering

- Model identifies similarities between observations based on their features and groups them into discrete clusters
- Example: A model that groups existing customers into clusters based on age, location, gender, social media usage, and purchasing behaviour

## Others

- Anomaly detection
- Generative models
- More...


Summary
Artificial Intelligence
Machine Learning
Traditional Rule-Based
Unsupervised
Supervised
Clustering
Regression
Binary Classification
Multiclass Classification