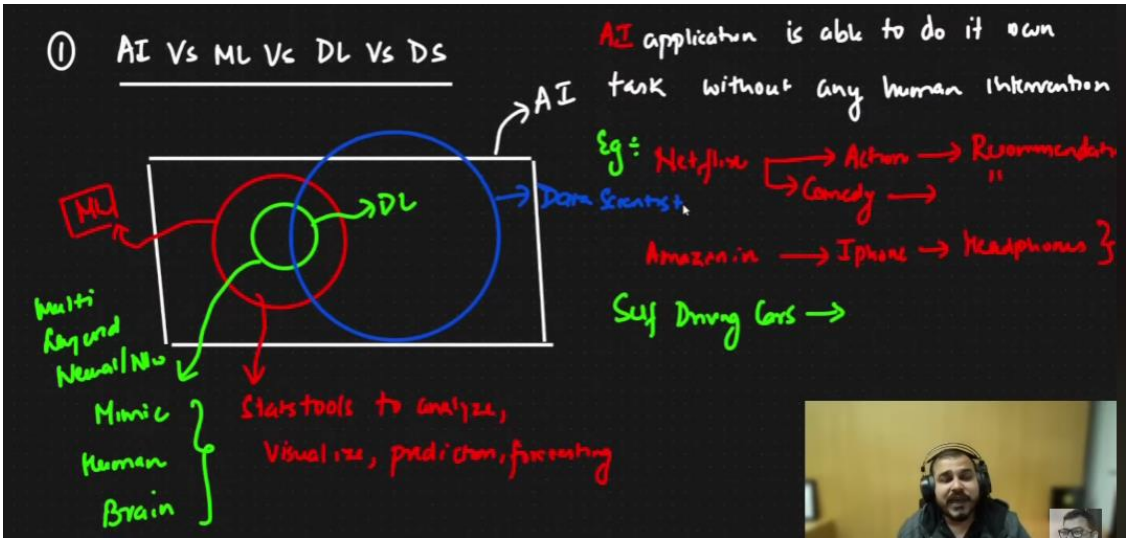
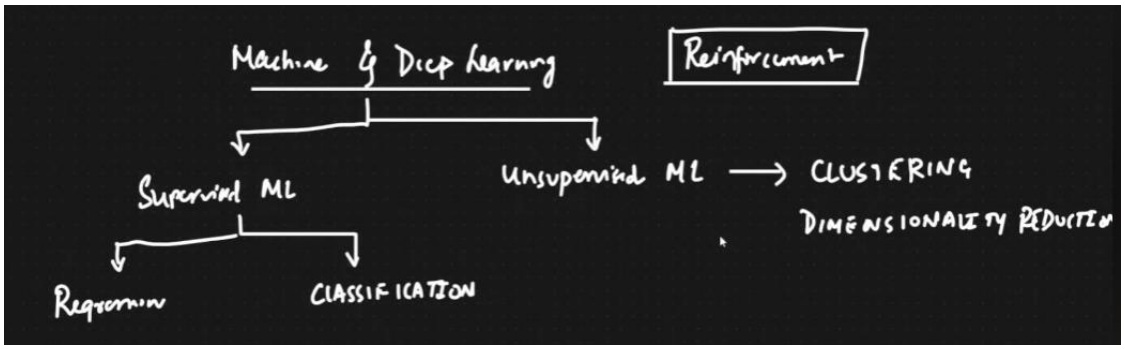
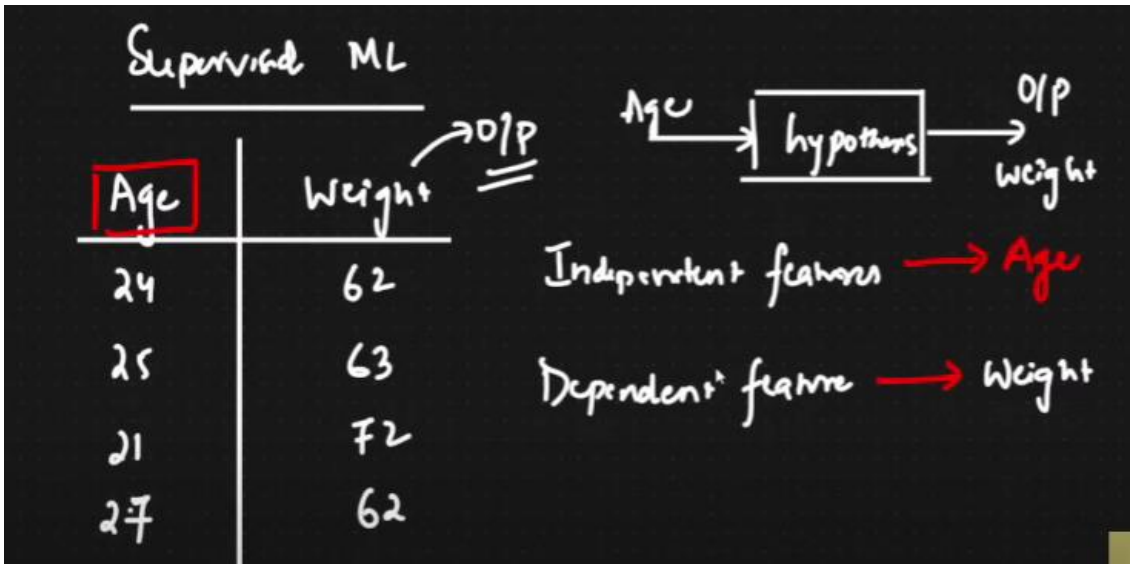
1) Intro to Machine Learning:



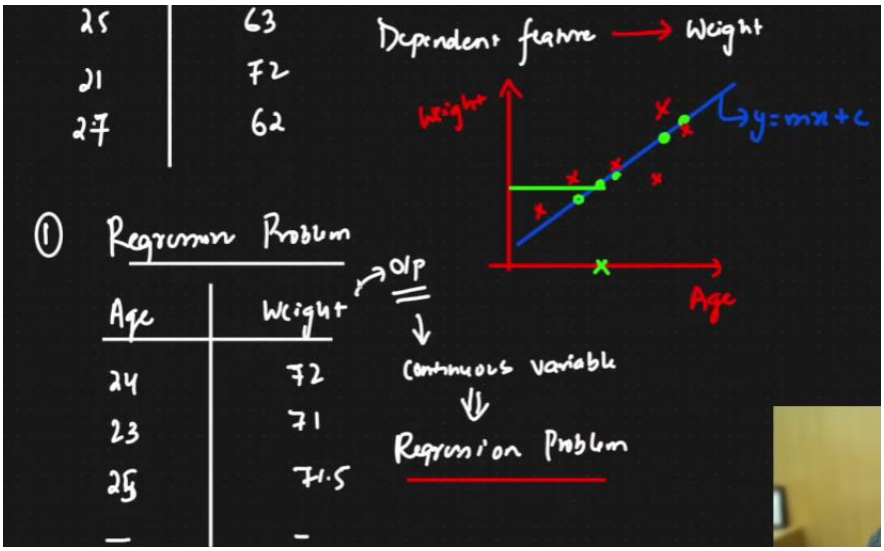
2) Types:



3) Supervised Machine Learning:

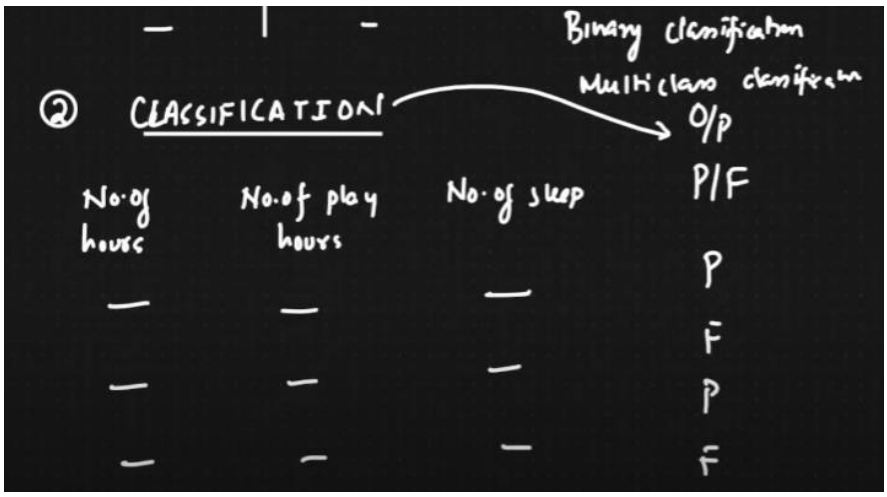


a) Regression:



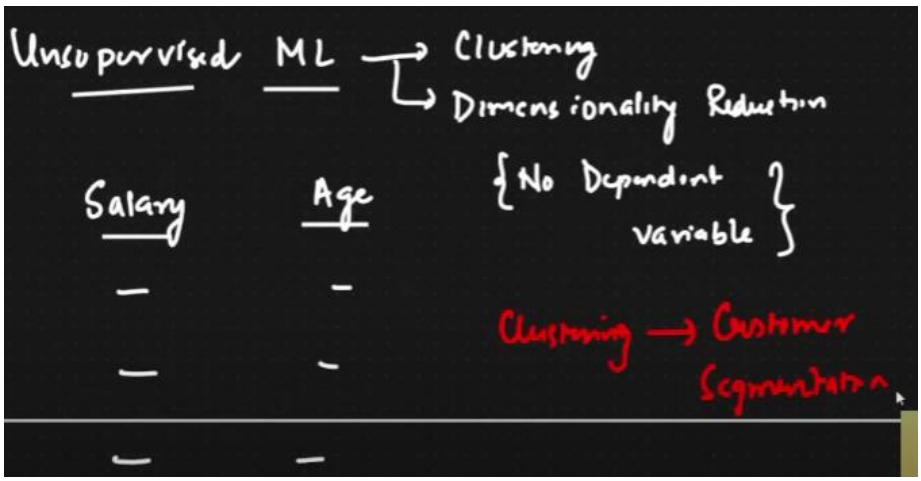
i) predicts a continuous numerical value
ii) works with continuous target variables
iii) uses metrics like Mean Squared Error (MSE) or R-squared.

b) Classification:



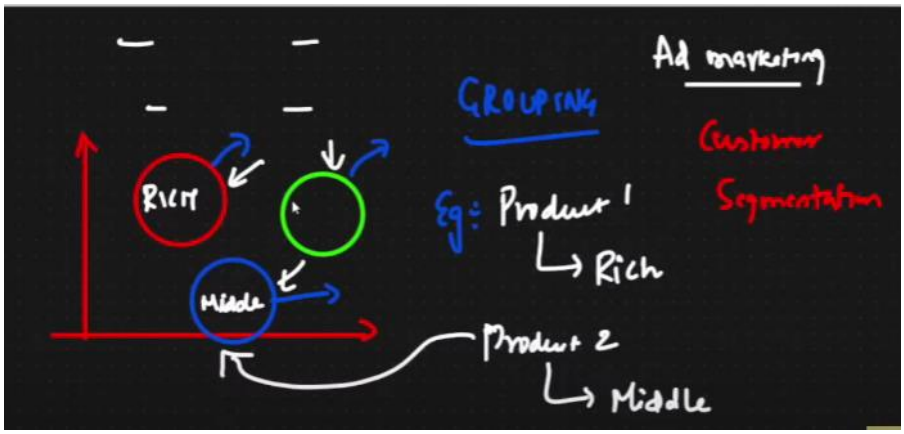
i) n the output, there's fix no. of categories!
2 → binary,
more than 2 → multiclass
ii) predicts a discrete category or label (e.g., spam or not spam, pass or fail)
iii) works with categorical target variables
iv) uses metrics like Accuracy, Precision, Recall, or F1-Score

4) Unsupervised Machine Learning:

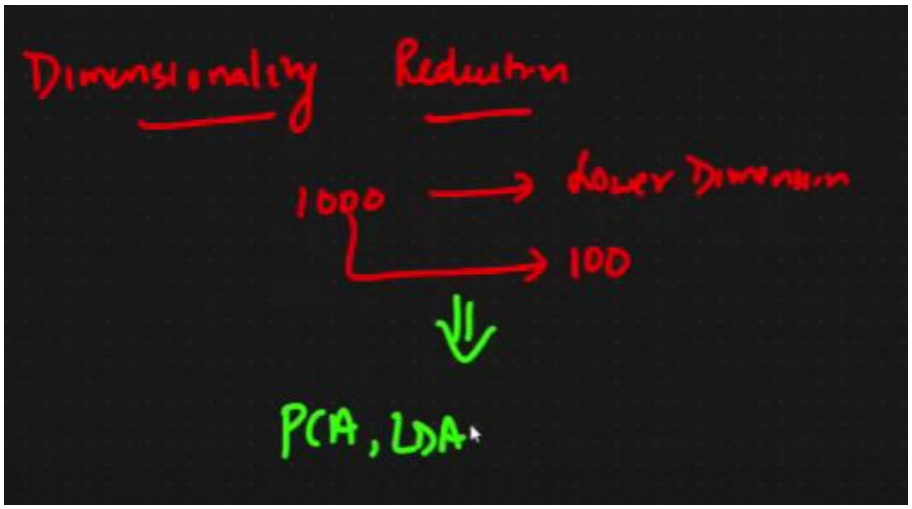


a) no target output and so:

b) perform **clustering**: k-mean, hierarchical:



c) or perform **dimensionality reduction**: pca, lda:



5) ML Algorithms will perform:

Reference:

1) Krish Naik - Intro to ML