



# Machine learning for Gate DA

Concepts with questions



# Topics to cover

- ▶ Machine Learning:
- ▶ (i) Supervised Learning: Regression and classification problems, simple linear regression, multiple linear regression, ridge regression, logistic regression, k-nearest neighbour, naive Bayes classifier, linear discriminant analysis, support vector machine, decision trees, bias-variance trade-off, cross-validation methods such as leave-one-out (LOO) cross-validation, k-folds crossvalidation, multi-layer perceptron, feed-forward neural network;
- ▶ (ii) Unsupervised Learning: clustering algorithms, k-means/k-medoid, hierarchical clustering, top-down, bottom-up: single-linkage, multiplelinkage, dimensionality reduction, principal component analysis



# Supervised learning







# Regression and Classification problems



REGRESSION



CLASSIFICATION













Party Committees

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Food

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Gifts

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Decorations

