☐ Compare bagging and boosting.

☐ Differentiate supervised and unsupervised learning.

☐ Compare overfitting and underfitting.

☐ Demonstrate simple linear regression considering a dataset that has two variables, slope and intercept.

☐ Compare classification algorithms and clustering algorithms.

☐ Explain any two types of cross-validation with neat diagrams.

☐ Demonstrate simple linear regression considering a dataset. (Need this?)

☐ Explain the components of simple linear regression.

- Input data (variables)

- Hidden variables

- Scatter plot

- Regression line (Slope, Intercept)

- Regression equation

- Model evaluation

☐ Week 6:

- Analyze the housing dataset having 2 columns: built-up area and height. Build a linear regression model.

- Import libraries (Numpy, Pandas)

- Plot scatter plot to compare areas and predict values.

☐ In a hospital, a doctor has found that many patients are referred for breast cancer tests. Help the doctor build a machine learning model to predict/identify it to perform the following operations:

- Input data

- Perform preprocessing

- Data splitting

- Find accuracy vs. data prediction

☐ Illustrate the meaning of 3σ and its types of classification.

☐ Perform residual analysis and find model accuracy by splitting data for training and testing sets using linear and logistic regression.