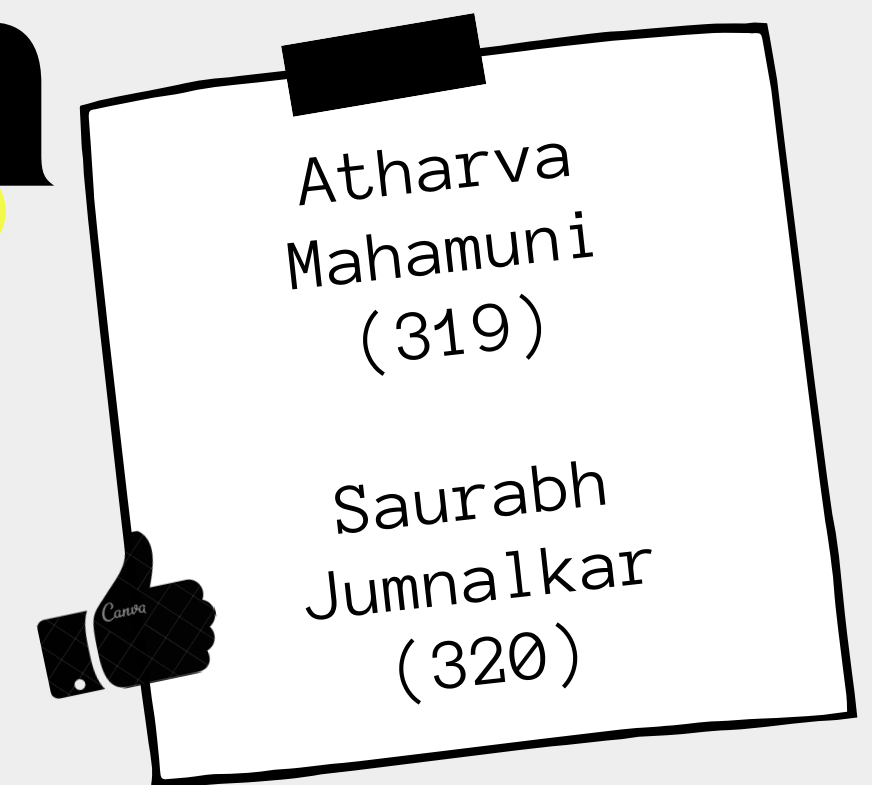


CPU Performance Prediction



Q Today's Agenda

- 1 Problem Statement
- 2 Solution Approach
- 3 Multiple Linear Regression
- 4 Random Forest Regressor
- 5 Prediction and Accuracy Demo

Problem Statement

CPU Performance Prediction
From given hardware dataset.

Q Given Dataset



Data Set Characteristics:	Multivariate	Number of Instances:	209	Area:	Computer
Attribute Characteristics:	Integer	Number of Attributes:	9	Date Donated	1987-10-01
Associated Tasks:	Regression	Missing Values?	No	Number of Web Hits:	343126

Solution Approach

How to solve this?

We went with this 2 approaches

1

Multiple Linear
Regression

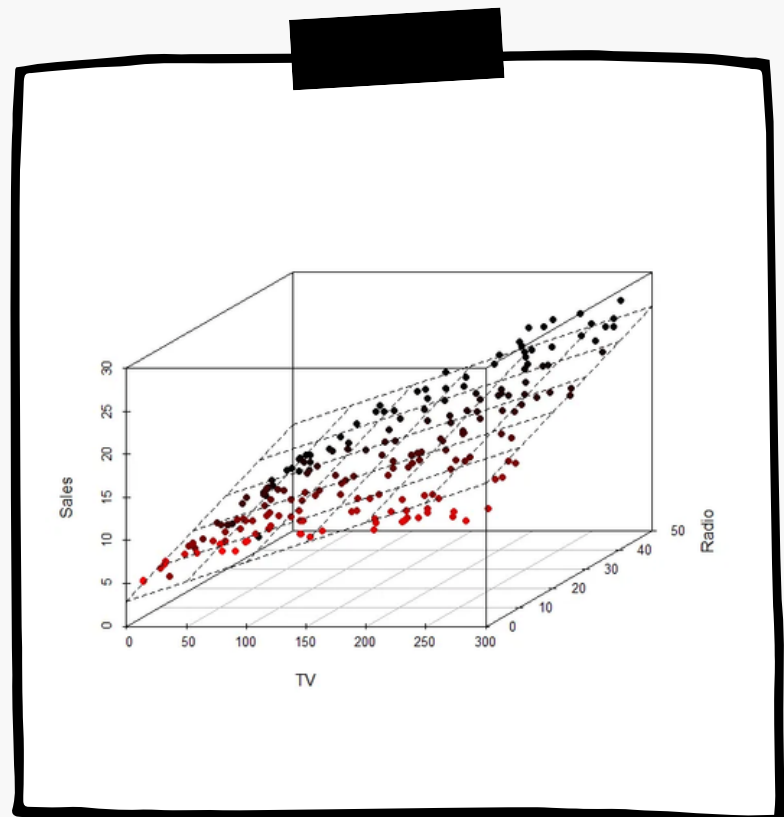
2

Random Forest
Regressor

Multiple Regression

What is multiple Regression?

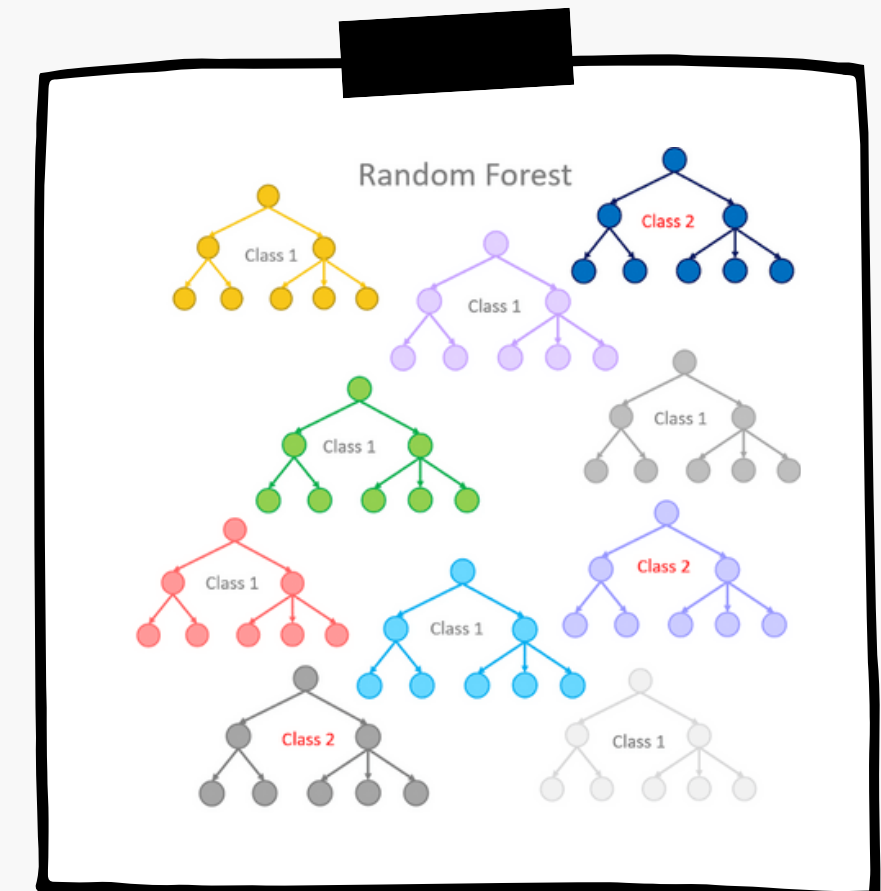
- It is a linear approach to modeling the relationship between a scalar response and one or more explanatory variables
- It is a statistical technique that uses several explanatory variables to predict the outcome of a response variable.



Random Forest

What is Random Forest?

- Operates by constructing a multitude of decision trees at training time
- Outputting the class that is the mode of the classes or mean/average prediction of the individual trees.



Let's start!



The
Demo

Thank you!

Happy
weekend!