# REGRESSOR ASSIGNMENT USING ML

1. Problem Statement: ML, Regressor, supervised Learning

2. Total no of columns:6

Total no of rows:1338

3. Preprocessing using one-code encoding to convert nominal data

## Machine Learning:

r value: 0.78

#### SVM:

SL.No	Sigmoid	Linear	rbf
	-0.07	-0.01	-0.08

### Decision Tree:

SL.No	CRITERION	SPLITTER	R VALUE
	friedman_mse	best	0.69
	absolute_error	best	0.66
	squared_error	best	0.69
	poisson	best	0.70
	friedman_mse	<mark>random</mark>	0.75
	absolute_error	random	0.72
	poisson	random	0.74
	squared_error	random	0.72

### Random Forest

SL.No	Parameter	CRITERION		R VALUE
	n_estimators= 50		random_state= 0	0.84
		squared_error	random_state= 0	0.85
		absolute error	random state= 0	0.85

friedman_mse	random_state= 0	0.85
poisson	random_state= 0	0.85
squared_error	sqrt	0.87
absolute_error	sqrt	0.87
friedman_mse	sqrt	0.86
poisson	sqrt	0.87
squared_error	log2	0.87
absolute_error	log2	0.87
friedman_mse	log2	0.87
poisson	log2	0.87

I am chosing Random forest since i get 0.87 using the above parameters