# Assignment-Classification Algorithm

1.) Identify your problem statement

Want to predict the CKD Affected or not

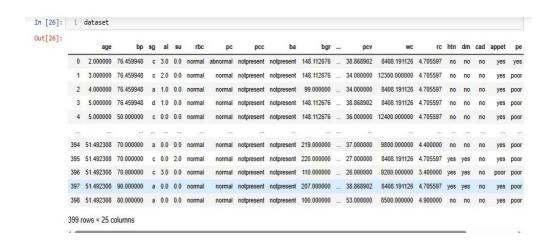
2.) Tell basic info about the dataset

Total number of rows 399. Total number of columns 26

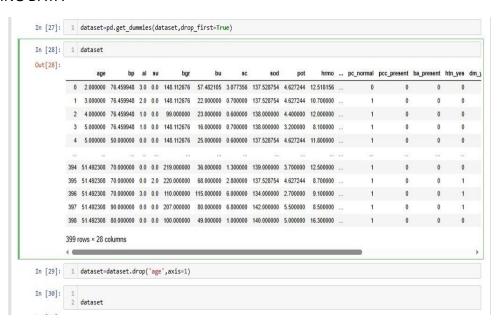
3.) Mention the pre-processing method

Yes, I do converting string to number-nominal data

#### **ORIGINAL DATA**



#### **CONVERTING DATA**



4.) Finally model

The Random Forest use Accuracy =0.99

# 5.) All research value of r2\_score

#### 1. SUPPORT VECTOR MACHINE:

	precision	recall	f1-score	support
0 1	0.98 1.00	1.00 0.99	0.99 0.99	51 82
accuracy macro avg weighted avg	0.99 0.99	0.99 0.99	0.99 0.99 0.99	133 133 133

## The **SVM Regression** use Accuracy =0.99

#### 2. DECISION TREE

	precision	recall	f1-score	support
0	0.96	1.00	0.98	45
1	1.00	0.97	0.99	75
accuracy			0.98	120
macro avg	0.98	0.99	0.98	120
weighted avg	0.98	0.98	0.98	120

## The **DECISION TREE** use Accuracy =0.98

## 3. RANDOM FOREST

	precisio	n reca	ıll f1-sco	ore supp	ort
0	0.98 1.00	1.00 0.99	0.99 0.99	45 75	
accuracy macro avg weighted avg	0.99 0.99	0.99	0.99 0.99 0.99	120 120 120	

## The **RANDOM FOREST** use Accuracy =0.99

# 4. Logistic Algorithm

	precision	recall	f1-score	support
0	0.66	1.00	0.79	79
1	0.00	0.00	0.00	41
accuracy			0.66	120
macro avg	0.33	0.50	0.40	120
weighted avg	0.43	0.66	0.52	120

The **Logistic Algorithm** use Accuracy = 0.66

#### 5. KNN classification

	precision	recall	f1-score	support
0 1	0.88	1.00 0.92	0.94 0.96	45 75
accuracy macro avg weighted avg	0.94 0.96	0.96 0.95	0.95 0.95 0.95	120 120 120

The KNN classification use Accuracy =0.66

# 6.) FINAL MODEL

The final model is Random Forest because the Accuracy value is high comparatively Other value