

Diabetes Prediction:

We are analyzing various column such as

- Gender,
- Age,
- Hdl,
- HbA1c,
- BMI

to predict either our patient is diagnosed by Diabetes or not.

Data Statistics:

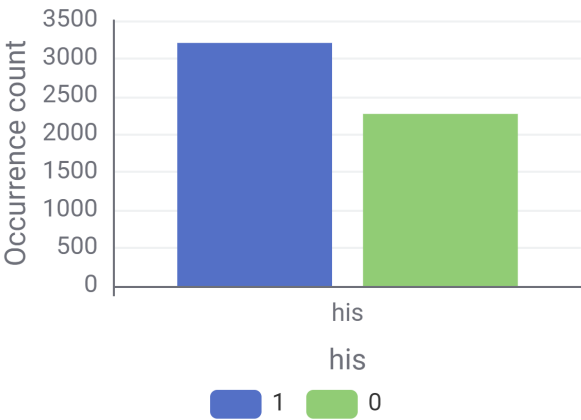
Rows: 4 | Columns: 14

Name	Type	# Missing val...	# Unique val...	Minimum	Maximum	25% Quantile	50%
Age	Number (double)	0	2143	12	70	26.166	43
BMI	Number (double)	0	2479	2.84	233.79	23.4	29
A1c	Number (double)	0	2179	0.1	14	5.165	6.
HDL	Number (double)	0	2093	30	62	43	48

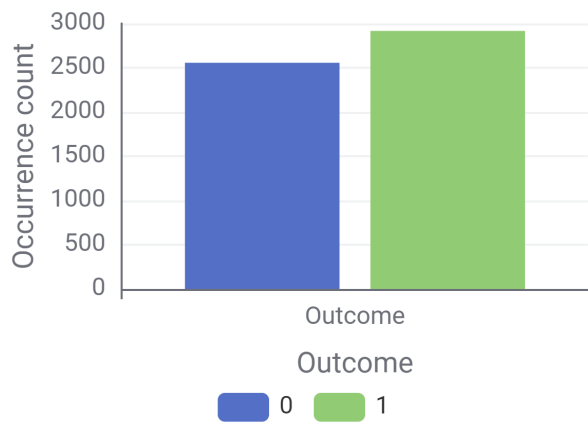
Inherit Status:

Family History:

There are 378 people in our dataset that have no family history into the diabetes meanwhile the rest 534 do have the diabetes in their inherit status.



Diabetes Status:



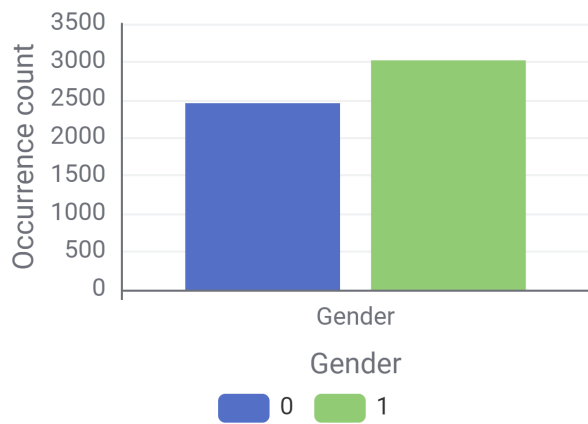
Diabetes Status:

There are 486 people in our dataset which are detected as diabetes meanwhile the rest don't.

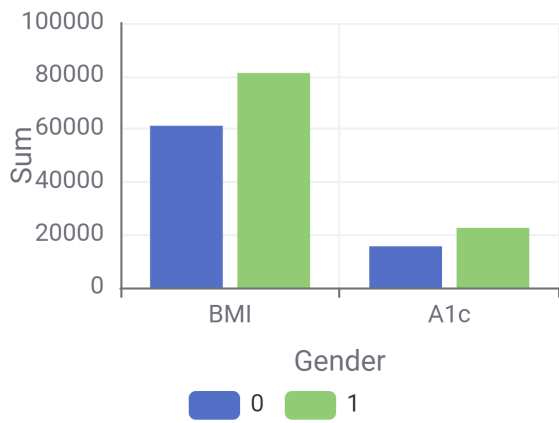
Gender Status:

There are 503 males and 409 women in our data

No of Genders



Bar Chart



BMI and HomoGlobin Status:

We get to know that BMI is quite high in males compared to women and If we observe, Homoglobin level, Males are still slightly higher to Women.

Model Accuracy:

We found out that SVM and Logistic Regression performs incredible.However, the random forest slightly stays ahead.

Logistic Regression Accuracy:

Rows: 1 | Columns: 1

RowID	Accuracy
	Number (double)

Confusion Matrix of Logistic Regression:

Rows: 2 | Columns: 2

RowID	1	0
	Number (integer)	Number (integer)

RowID	Accuracy
Number (double)	
Overall	0.982

RowID	1	0
Number (integer)		Number (integer)
1	151	3
0	2	118

Random Forest Accuracy:

Rows: 1 | Columns: 1

RowID	Accuracy
Number (double)	
Overall	0.996

Confusion Matrix of Random Forest:

Rows: 2 | Columns: 2

RowID	1	0
Number (integer)		Number (integer)
1	153	1
0	0	120

SVM Accuracy:

Rows: 1 | Columns: 1

RowID	Accuracy
Number (double)	
Overall	0.562

Confusion Matrix of SVM:

Rows: 2 | Columns: 2

RowID	1	0
Number (integer)		Number (integer)
1	154	0
0	120	0

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Predicted Values:

RowID	Age	Gender	BMI	his	A1c	HDL			
Random Forest Prediction:				SVM Prediction		Logistic Regression Prediction:			
#	Random Forest			#	SVM		#	Logistic Regression	
1	0			1	1		1	0	