

Our Team



RITTHUJA KANDASAMY



ANDREA VIVIANI



ABUBAKR MAMAJONOV

Hippocratia

The danger of "silent" heart attacks

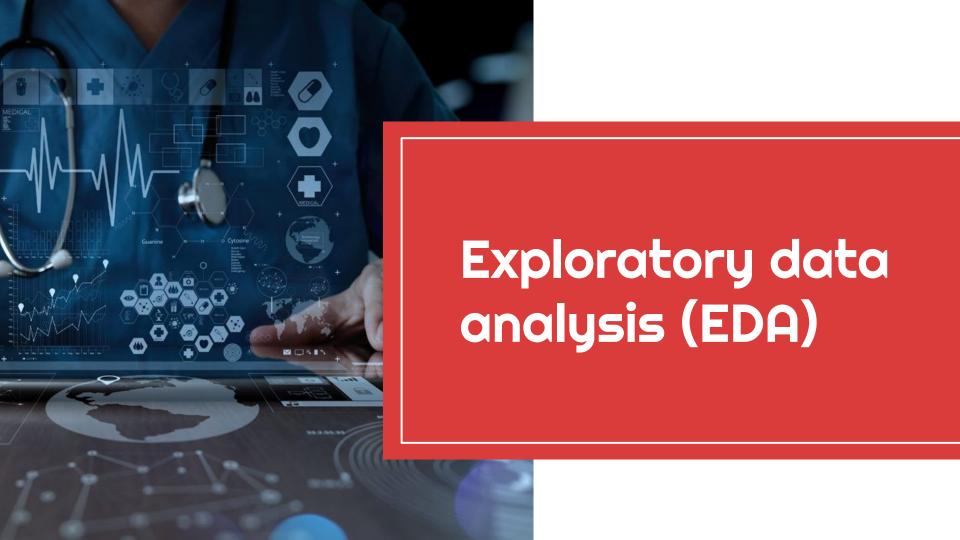
- Healthcare based startup
- Manage Coronary Heart Disease
- Prevent Heart Attacks through a specific drug





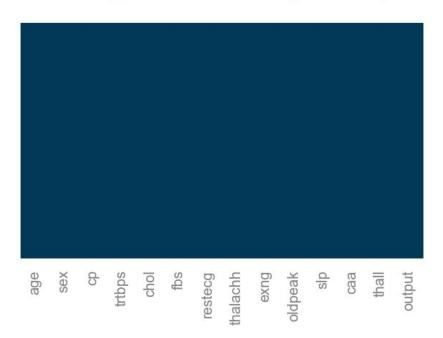
Hippocratia Challenge

Hippocratias will sell a Heart Medication and develop a suite to detect heart conditions and save lives.



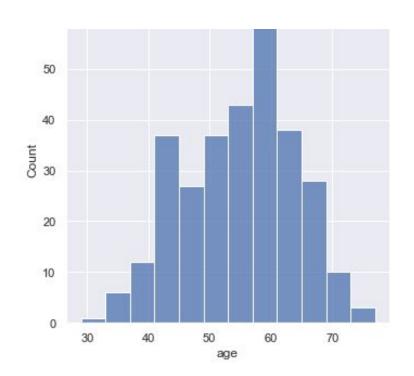
NULL VALUE

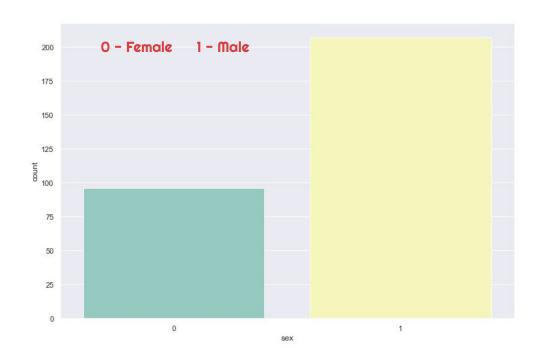
Finding Null Values Using Heatmap



We checked if there were null value in the dataset

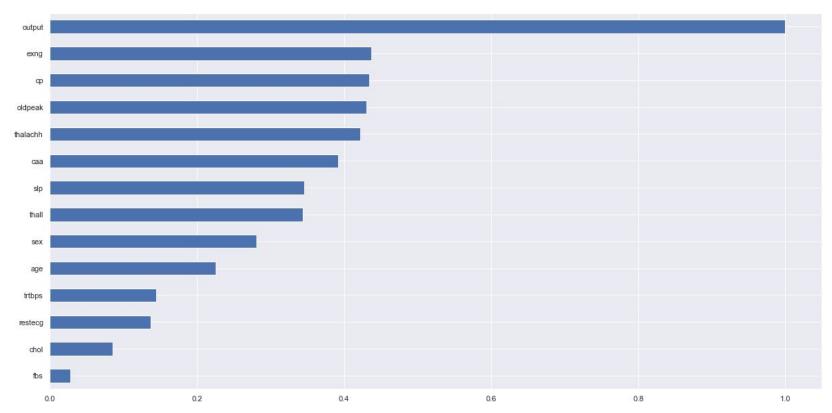
AGE AND GENDER





Here we have the gender proportion and the respective age, 60% are male.

CORRELATION



Correlation of the feature in the dataset

CORRELATION MATRIX

- 0.8

- 0.6

- 0.4

- 0.2

- 0.0

--0.2

- -0.4

age	1	-0.1	-0.07	0.28	0.21	0.12	-0.12	-0.4	0.1	0.21	-0.17		0.07	-0.23
sex	-0.1	1	-0.05	-0.06	-0.2	0.05	-0.06	-0.04	0.14	0.1	-0.03	0.12	0.21	-0.28
ф	-0.07	-0.05	1	0.05	-0.08	0.09	0.04	0.3	-0.39	-0.15	0.12	-0.18	-0.16	0.43
trtbps		-0.06	0.05	1	0.12	0.18	-0.11	-0.05	0.07	0.19	-0.12	0.1	0.06	-0.14
chol	0.21	-0.2	-0.08	0.12	1	0.01	-0.15	-0.01	0.07	0.05	-0	0.07	0.1	-0.09
fbs	0.12	0.05	0.09	0.18	0.01	1	-0.08	-0.01	0.03	0.01	-0.06	0.14	-0.03	-0.03
restecg	-0.12	-0.06	0.04	-0.11	-0.15	-0.08	1	0.04	-0.07	-0.06	0.09	-0.07	-0.01	0.14
thalachh	-0.4	-0.04		-0.05	-0.01	-0.01	0.04	1	-0.38	-0.34	0.39	-0.21	-0.1	0.42
exng	0.1	0.14	-0.39	0.07	0.07	0.03	-0.07	-0.38	1	0.29	-0.26	0.12	0.21	-0.44
oldpeak	0.21	0.1	-0.15	0,19	0.05	0.01	-0.06	-0.34	0.29	1	-0.58	0.22	0.21	-0.43
slp	-0.17	-0.03	0.12	-0.12	-0	-0.06	0.09	0.39	-0.26	-0.58	1	-0.08	-0.1	0.35
caa	0.28	0.12	-0.18	0.1	0.07	0.14	-0.07	-0.21	0.12	0.22	-0.08	1	0.15	-0.39
thall	0.07	0.21	-0.16	0.06	0.1	-0.03	-0.01	-0.1	0.21	0.21	-0.1	0.15	1	-0.34
output	-0.23	-0.28	0.43	-0.14	-0.09	-0.03	0.14	0.42	-0.44	-0.43	0.35	-0.39	-0.34	1
	age	sex	ф	trtbps	chol	fbs	restecg	thalachh	exng	oldpeak	slp	caa	thall	output

Accuracy before augmentation

85.2%

90.1%

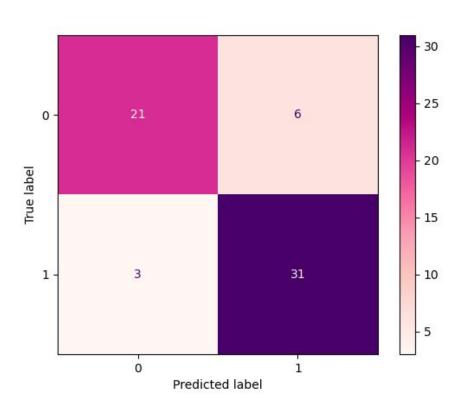
85.2%

Random Forest

Adaboost have the best accuracy before argumentation

CatBoost

Predicted values before augmentation



Accuracy after augmentation

91.8%

93.4%

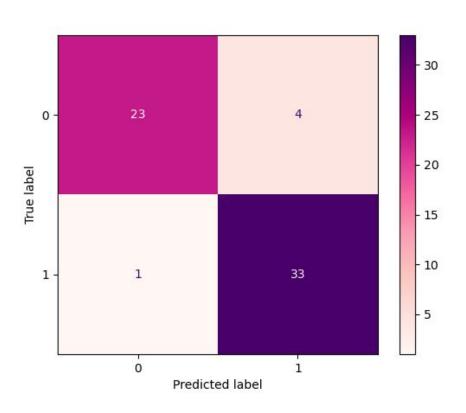
91.8%

AdaBoost

Extra trees have the best accuracy before argumentation

CatBoost

Predicted values after augmentation



Our demo

