XIX REUNIÓN
DIABETES, OBESIDAD y NUTRICIÓN

30-31 ENERO 2025
AUDITORIO DE Zaragoza

SEMI
FEMI
Grupo de Diabetes, Obesidad y Nutrición

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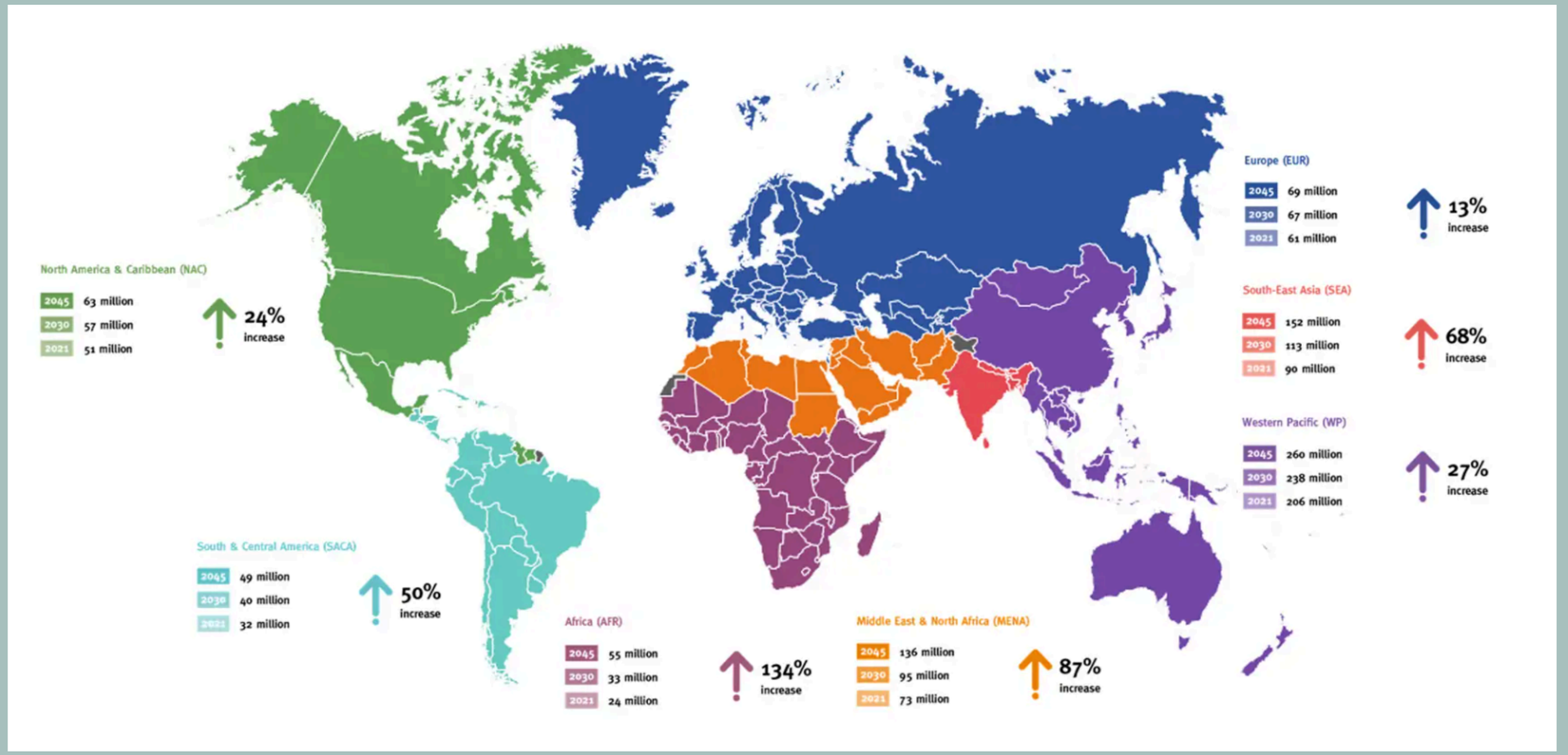

North America & Caribbean (NAC)
2045 63 million
2030 57 million
2021 51 million
24% increase
South & Central America (SACA)
2045 49 million
2030 40 million
2021 32 million
50% increase
Africa (AFR)
2045 55 million
2030 33 million
2021 24 million
134% increase
Middle East & North Africa (MENA)
2045 136 million
2030 95 million
2021 73 million
87% increase
Europe (EUR)
2045 69 million
2030 67 million
2021 61 million
13% increase
South-East Asia (SEA)
2045 152 million
2030 113 million
2021 90 million
68% increase
Western Pacific (WP)
2045 260 million
2030 238 million
2021 206 million
27% increase

Contents

Target: Multiclass

Non diabetic

Prediabetic

Diabetic

Model election

Decision Tree Classifier

0	1
1	0
2	0

Linear SVC

0	0.99
1	0
2	0.09

KNN

0	0.99
1	0
2	0.09

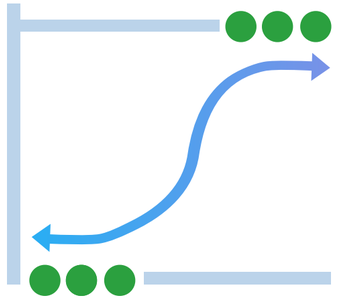
Improving the model

- Binarizing

- Downsampling

- Scaling

Model selection



Logistic Regression

0	0.71
1	0.76

Decision Tree Classifier

0	0.71
1	0.71

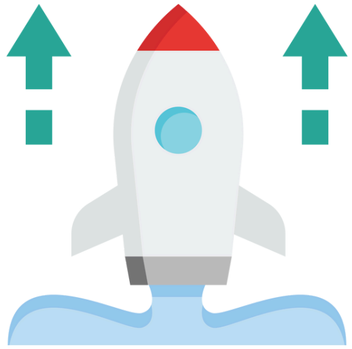
KNN

0	0.68
1	0.75

Model selection

Linear SVC

0	0.72
1	0.77



XGBoost

0	0.72
1	0.77

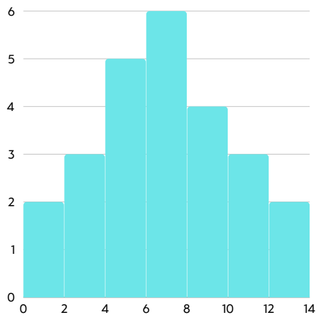
Scaling Model Selection

Over XGBoost

0

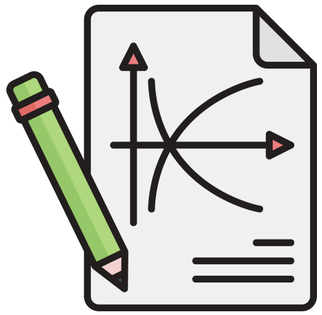
Min- Max Scaler

0 0.71
1 0.78



Standar Scaler

0 0.92
1 0.31

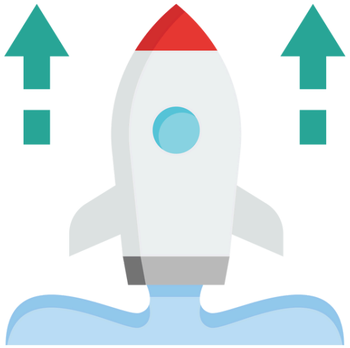


Log Transform

0 0.71
1 0.78

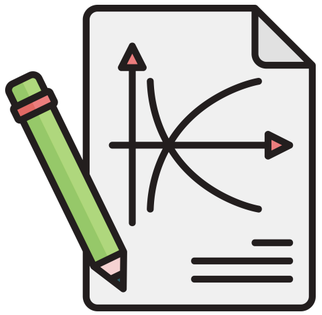
(columns=
["menthlth","physhlth","education",
"diffwalk","fruits"])

Dropping columns



XGBoost

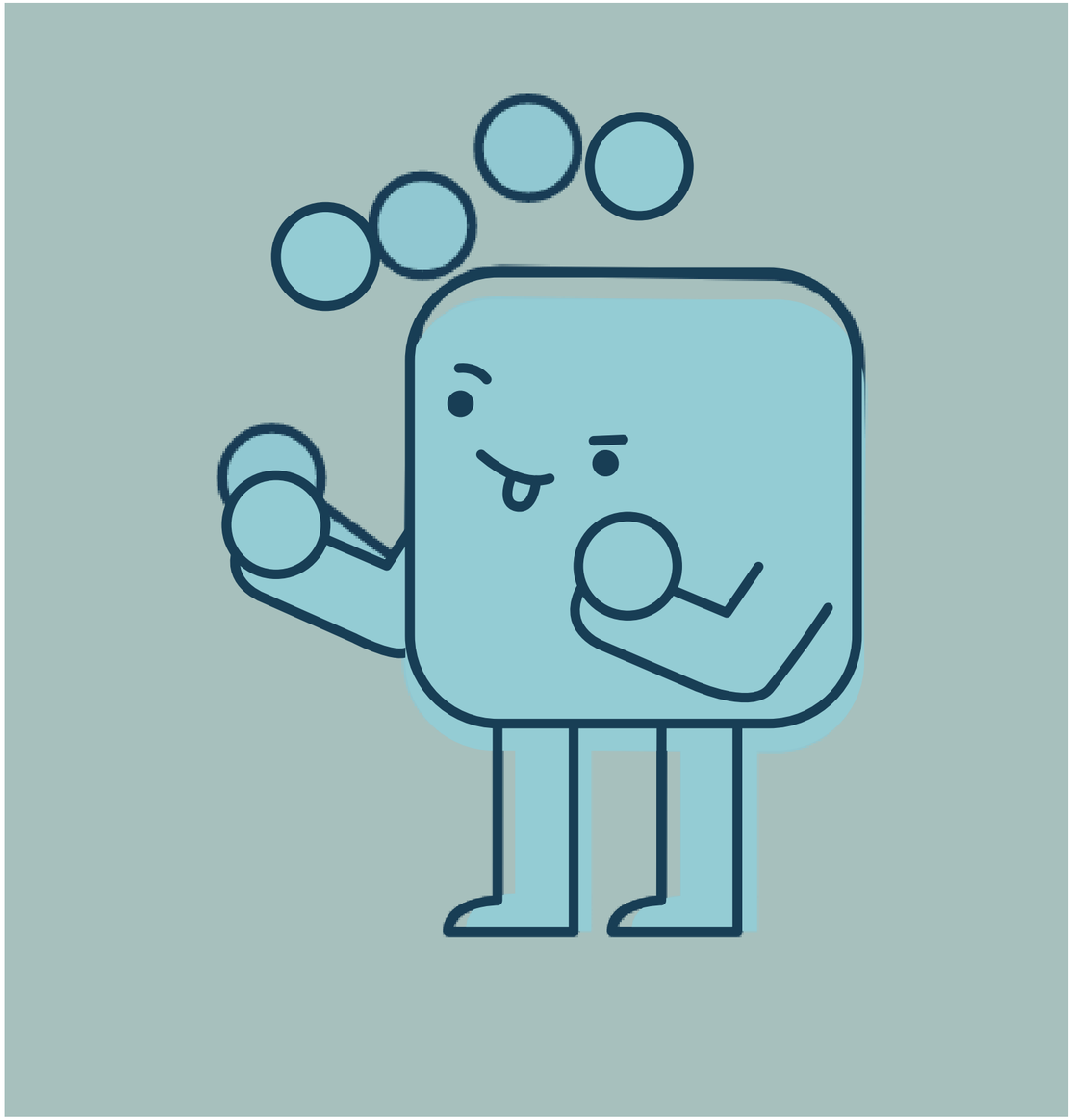
0	0.71
1	0.78



Log Transform

0	0.70
1	0.79

Cross- validation



Conclusiones

¡Muchas gracias!

Eduardo Martínez Manzanero