Tanzanian Water Wells

Brenden ~ Sakeah ~ Ryan

The Clean Water Problem

As of 2019:

43% of Tanzanians w/o basic access to water

Each new well costs $45,000 to make

Classifications :

Functional

Non functional

Needs Repairs

Features :

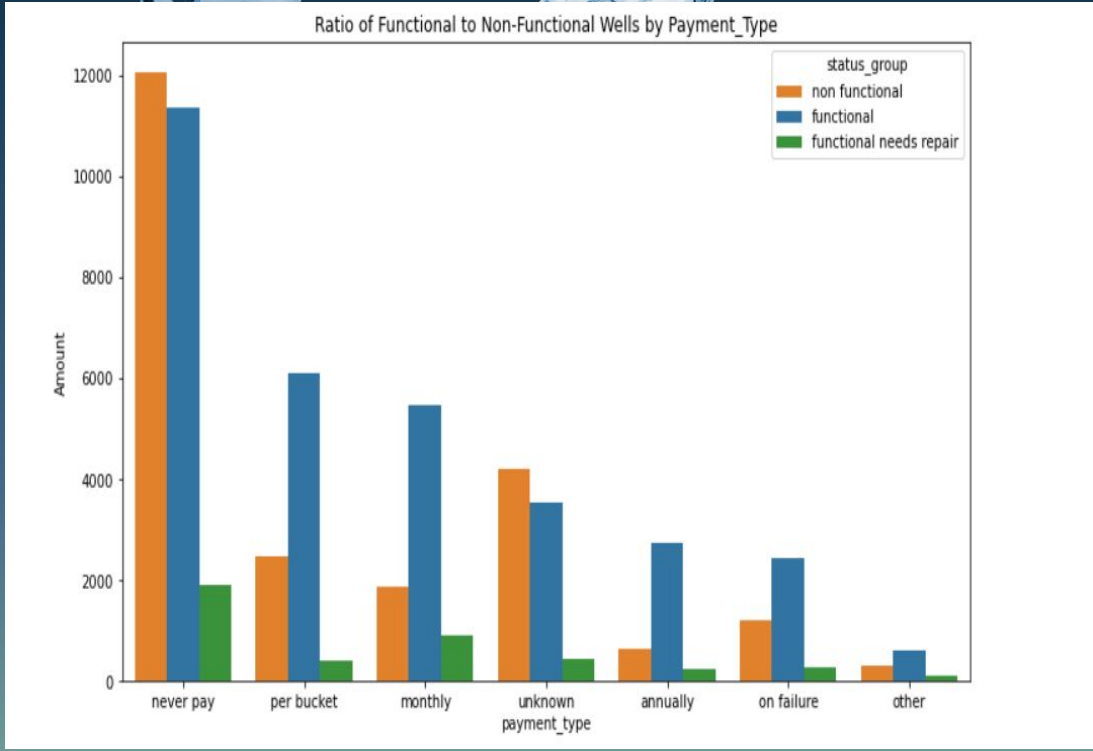
Basins

Payment type

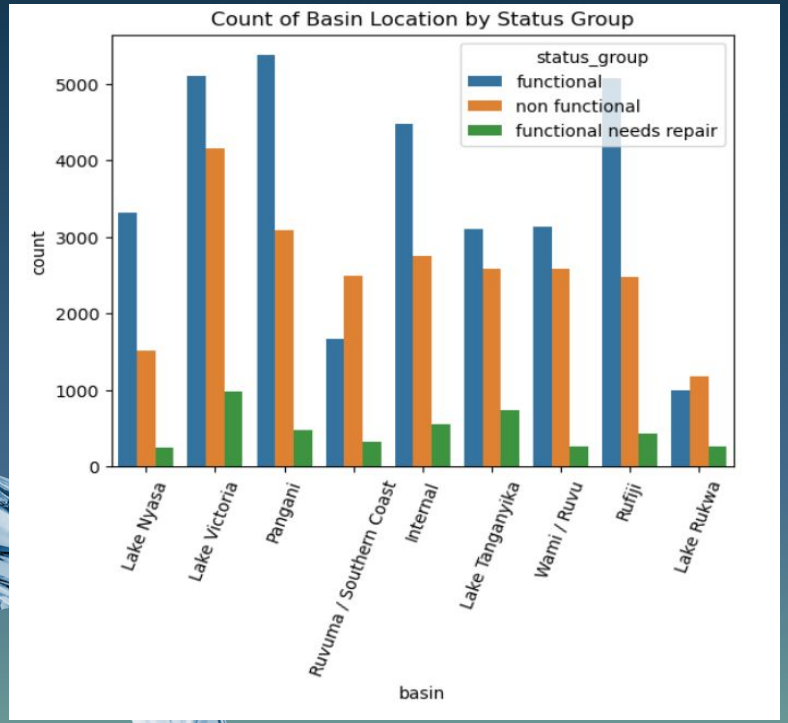
Waterpoint Type

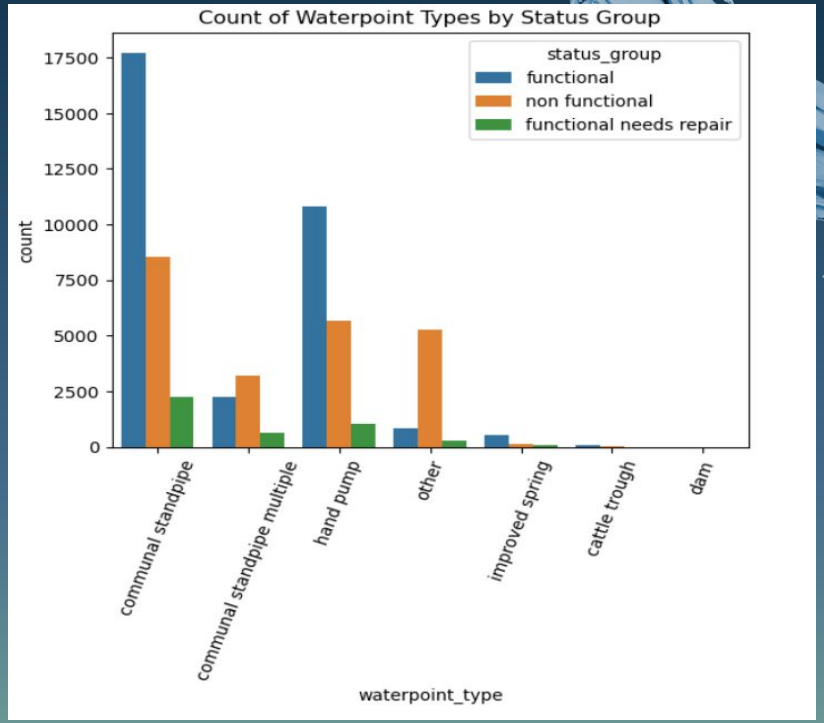
EDA:Functional Ratio Analysis

Source of data:
Taarifa & Tanzanian Ministry of Water Data Sets



EDA Analysis Cont.





Decision Tree Model

Criterion:

Entropy decision making type

Max Tree Depth of 35

Minimum sample split 3

Results of tuning

Scoring Results:

Training: 79.3%

Testing: 75.2%

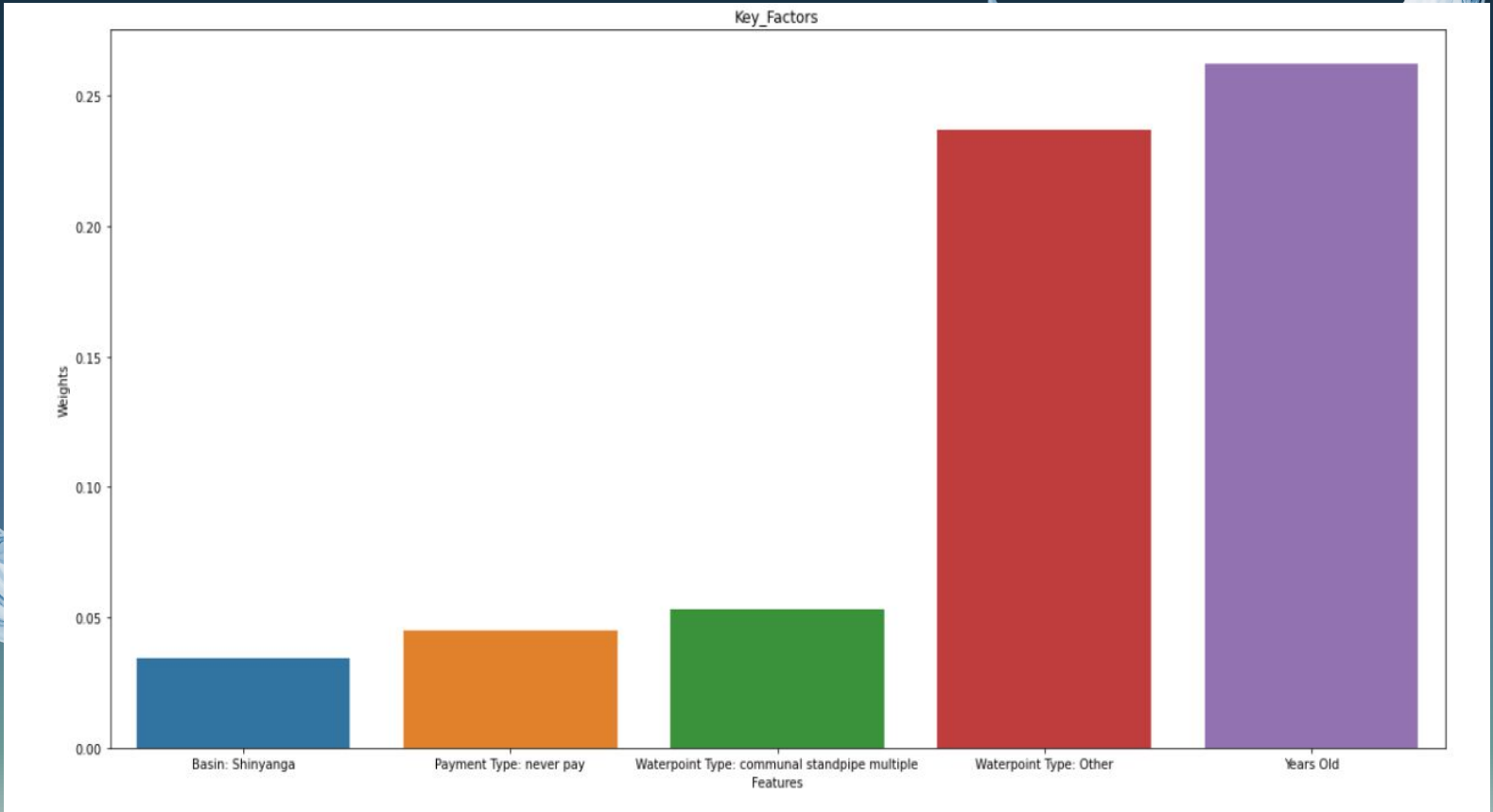
Metrics:

Precision 76.7%

Recall: 82.8%

f1 Score: 79.7%

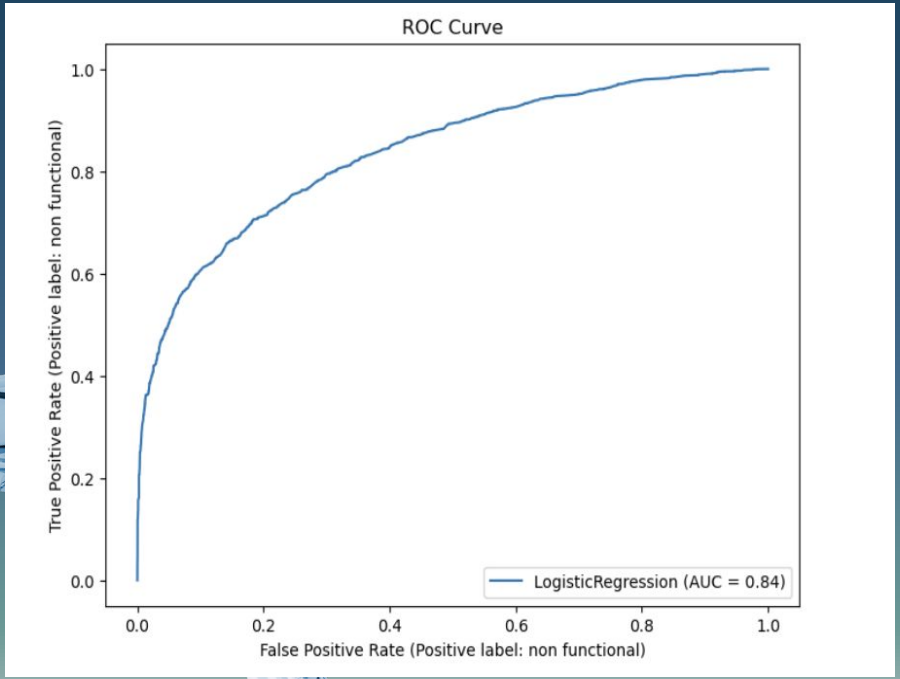
Primary Features:Decision Tree

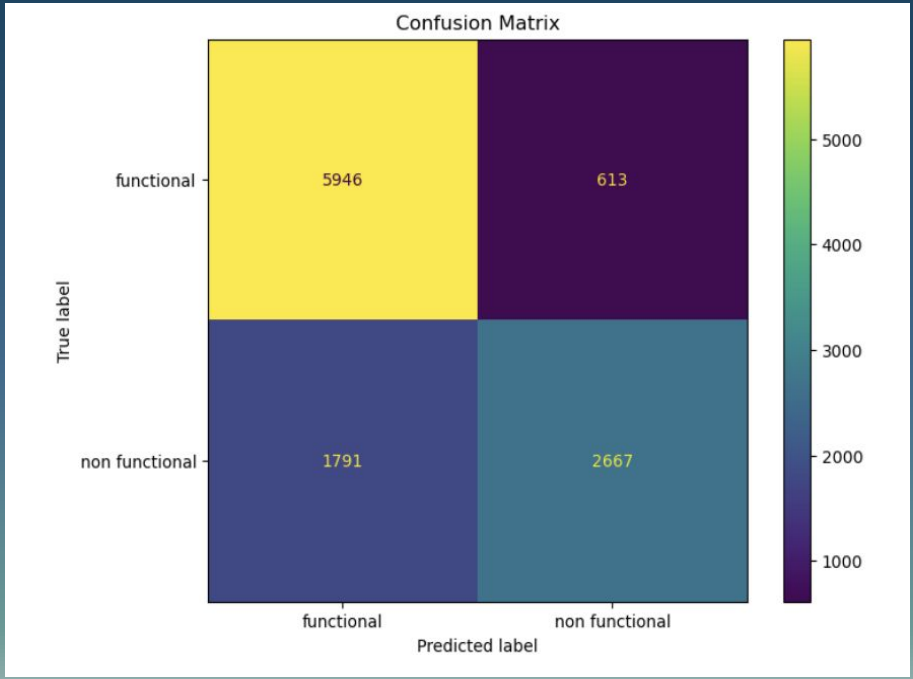


Logistic Regression Model

Binary model metrics:

Water well binary & ternary classification





Payment Type:Per Bucket

Water Type : Communal Standpipe/Hand Pump

Basins: Lake Nyasa

&

Pangani - Rufigi

THANK YOU