Tanzania Water Well

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Business Problem

- Analyze data from Tanzania water wells
- Determine the functionality of future water wells
- Make recommendations to the Tanzania government

Data & Methods

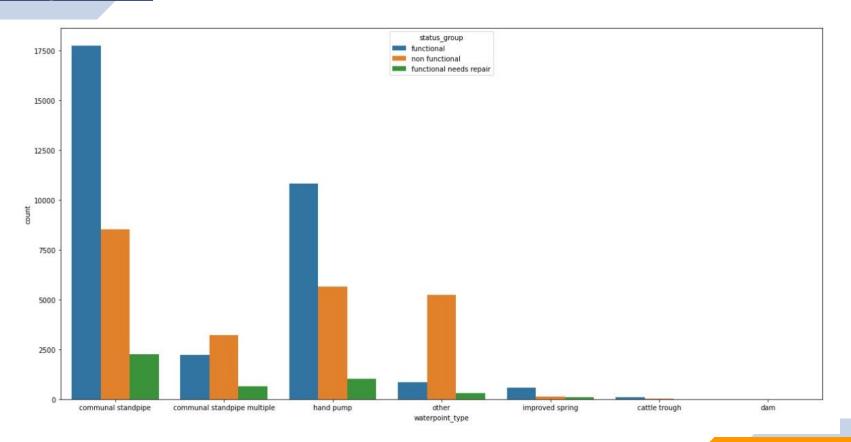
- Data source: Data competition
 - Train set, and feature set

Predicted Classes

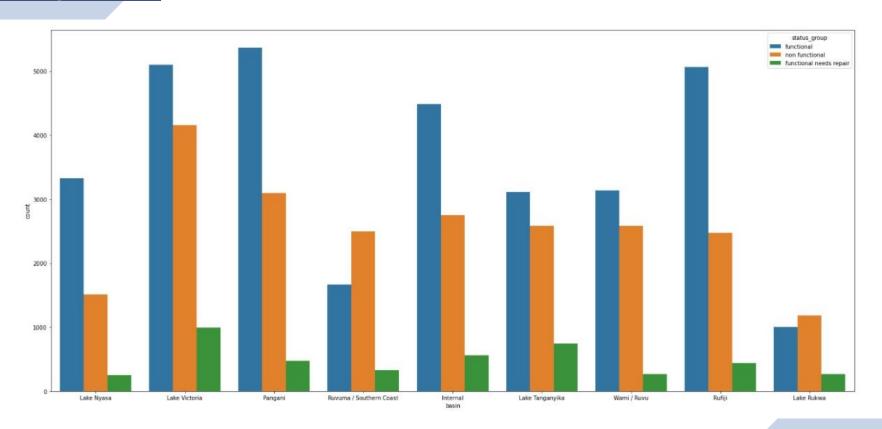
- Predicted classes:
 - ▶ Functional
 - Functional but needs repair
 - Non-functional

Data Exploration

Waterpoint access

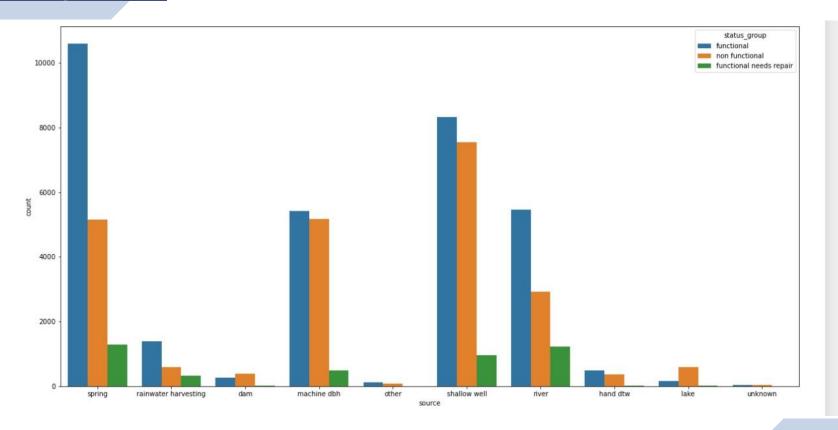


Basin type



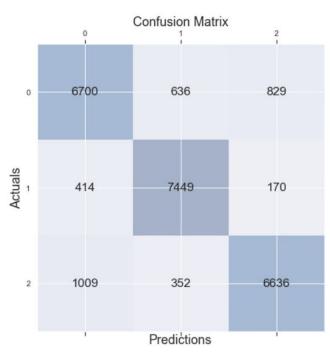
Data Exploration

Source of the water



Model Performance

Final Random Forest Model:



Balanced Accuracy: **0.8592288982778237**

Conclusions

- Authorities need to check the wells of the ones they funded
- There needs to be more communal standpipes
- Focus on the repairs of the soft and enough water wells

Next Steps

- 1. More feature selection will be done
- 2. Improve the imbalance target problem
- 3. More hypertuning for the best results of the model

Thank You!

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