BUILDING PERMITS PREDICTIONS

Tuwaiq Data Science Bootcamp Project

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PROJECT BACKGROUND

Motivation

Help to achieve 2030 vison

Goal

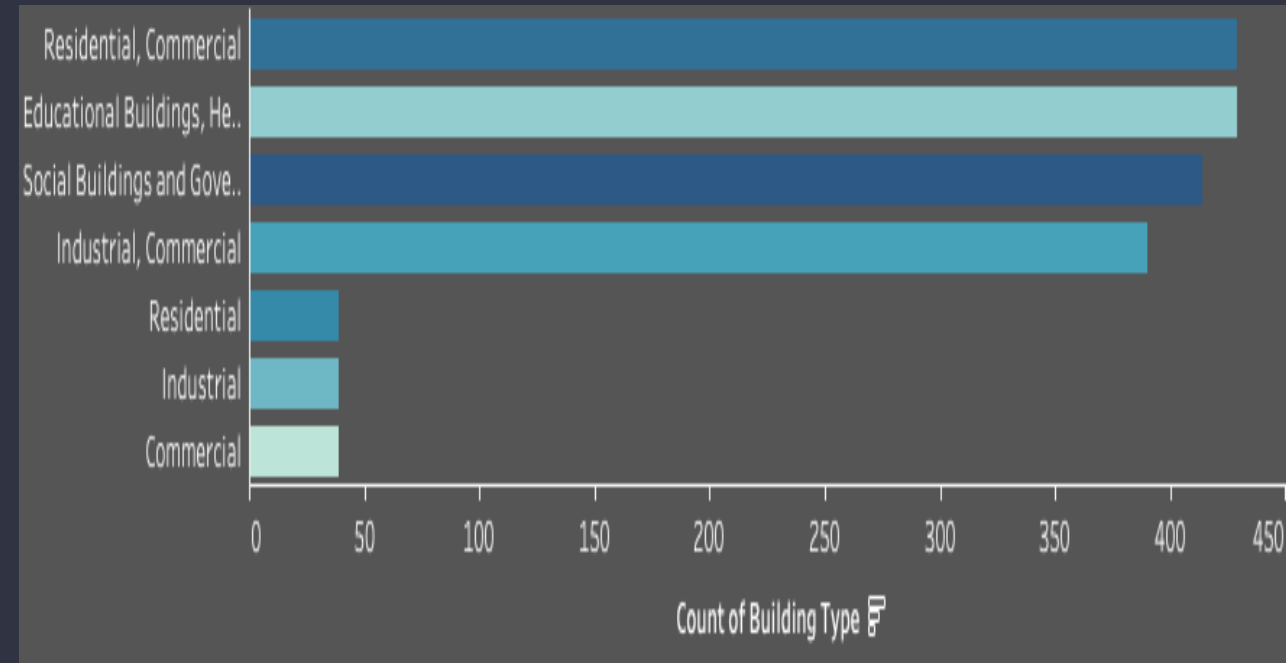find the best areas for investments.

DATA SOURCE

Dataset come from KAPSARC (King Abdullah Petroleum Studies and Research Center). The dataset contains Saudi Arabia Building Permits Issued by Municipalities by Regions and Type of Permit. Data from Ministry of Municipal and Rural Affairs. the data has 10 variables (2 categorical variables and 8 numerical variables) the dependent variable is Number of Permits.
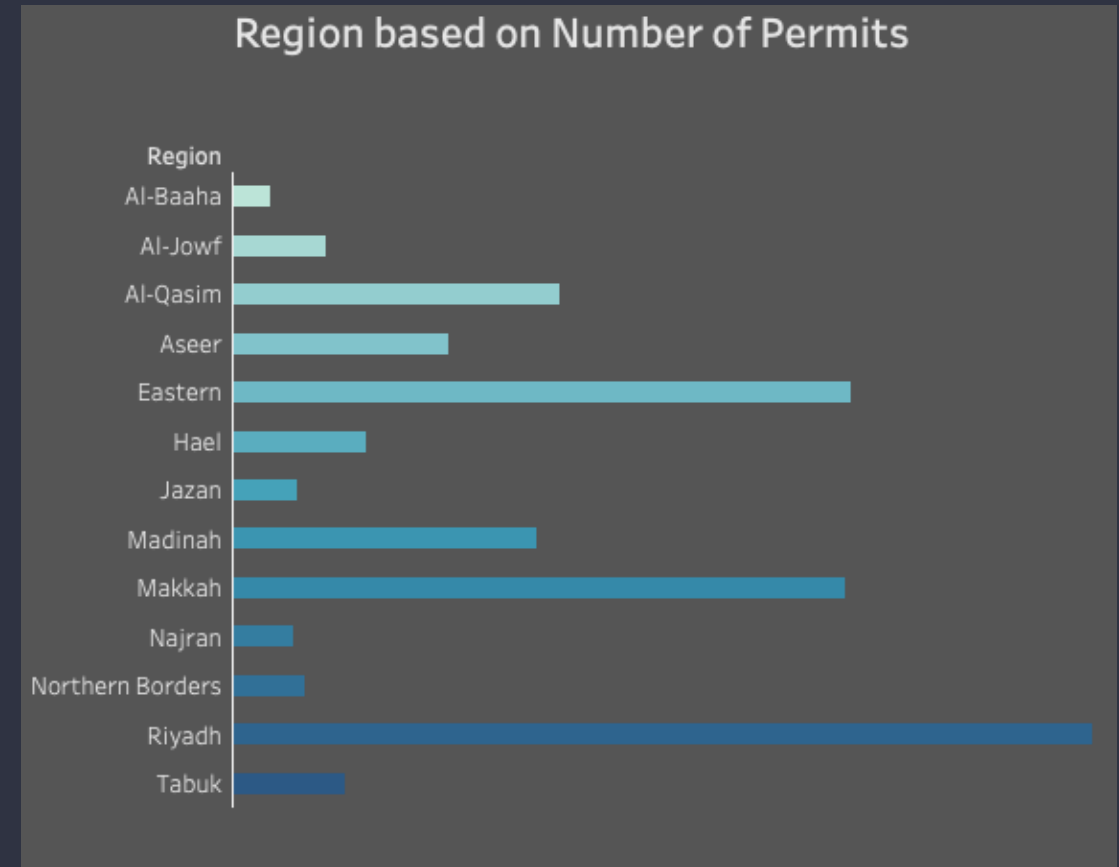
BUILDINGS TYPES

Top builds count

BUILDINGS BY REGION

This figure shows the percentage of permits that were issued in each region over the years from 1987 until 2019, most of the permits were issued in the Riyadh region, Eastern region, Makkah region, Madinah region, and AL-Qassim region.
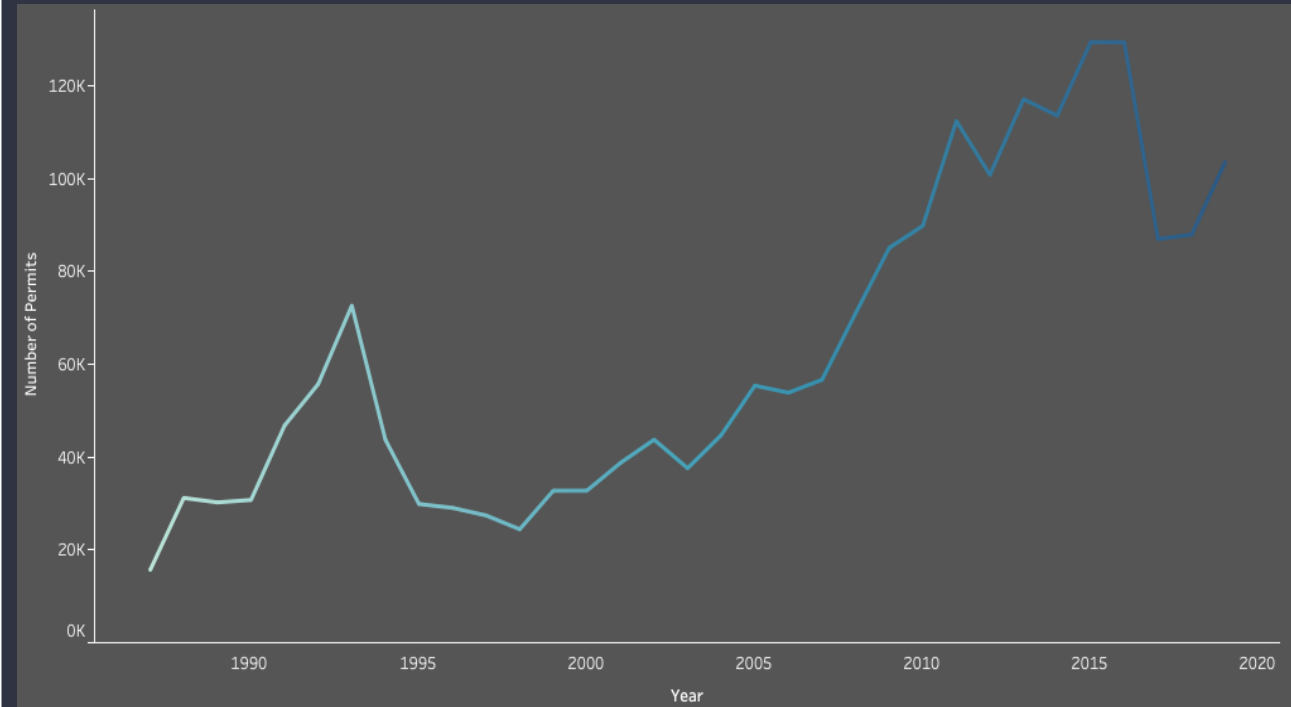
This tells us that these five regions are the best areas for investments.

Region based on Number of Permits

Region
- Al-Baaha
- Al-Jowf
- Al-Qasim
- Aseer
- Eastern
- Hael
- Jazan
- Madinah
- Makkah
- Najran
- Northern Borders
- Riyadh
- Tabuk

COUNT OF PERMITS

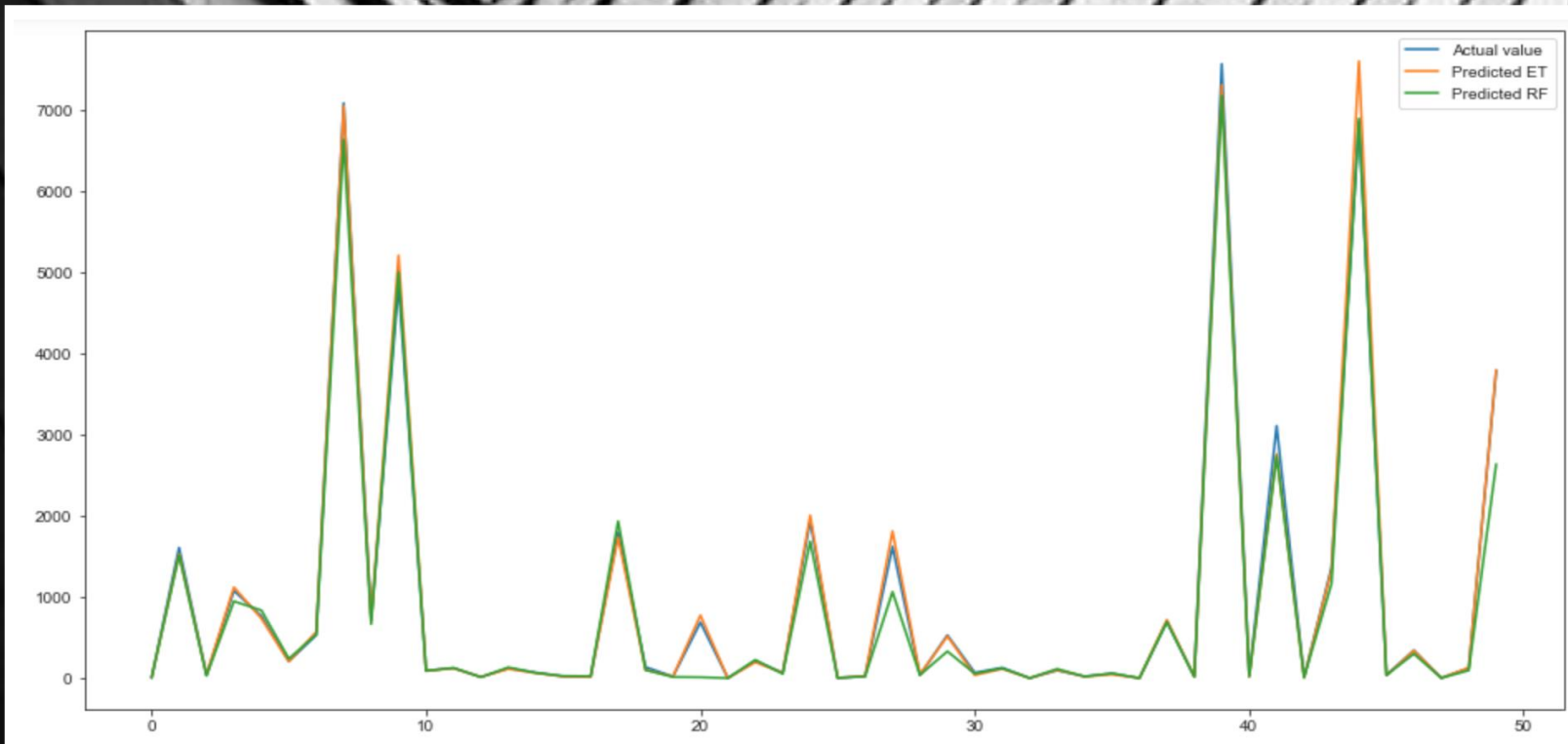number of permits has been increasing over the years from 1998 until 2019.

As we can see there was a drop in 2016 and this is due to the permit system had changed and new categories being added.
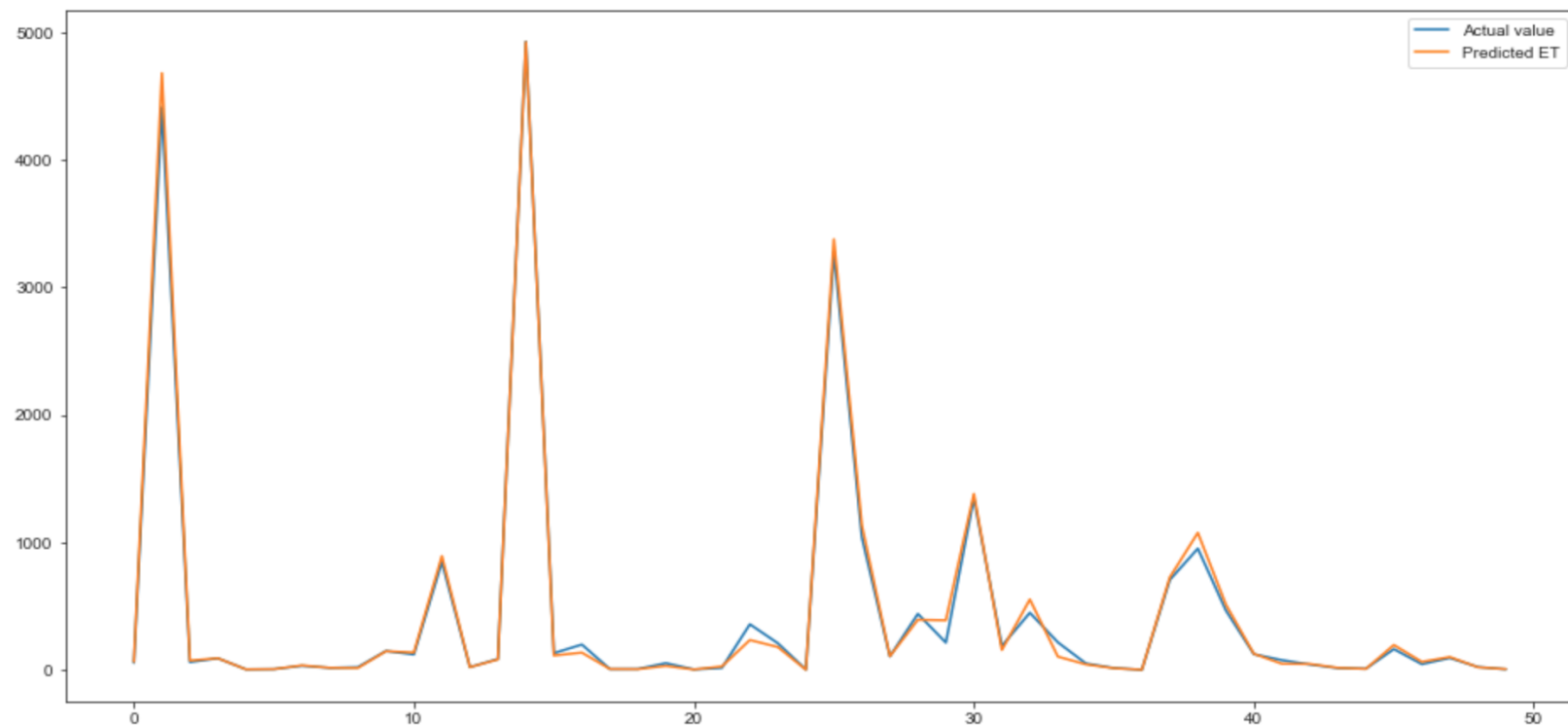
PREDICTING ISSUANCE OF BUILDING PERMITS

Results and findings
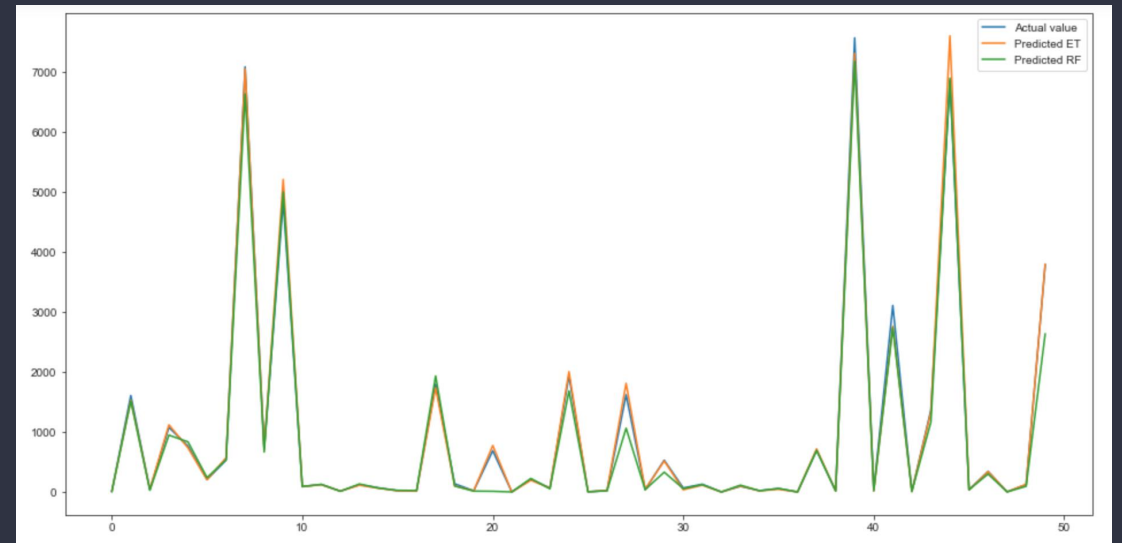
results of predicting the evaluation set

results of predicting the test set

ERROR %

After making the prediction the calculated error percentage, to find the number of points that have errors greater than 30%.

-The number of points with error greater than 30% = 61 out of 343 test samples

error are less than 20%, I can say that the model is good.

THANK YOU

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