

Abstract

One of Saudi Arabia **2030** vision key initiatives is

“Quality of life”. This initiative comes with the aim of diversifying and enriching the tourism and entertainment experience in the Kingdom.

It improve the quality of life by developing the necessary environment to create more vibrant options that enhance the participation and experience of citizens, residents and visitors.

The Saudi Tourism Authority has launched tourism programs such as **(Saudi Spirit)**, a deliberative platform which you can discover tourist destinations, events and seasons. Through the platform, visitors can find suitable packages and trips, and entertainment activities available such as AlUla Winter, Riyadh , Jeddah and Alahsa Seasons. In this time of the year, hotels and resort are in high demand in the Kingdom. We will predict the prices in the current month (December 2021)

Design

The data was token by web scraping [booking.com](https://www.booking.com)

Data

is about data of **1443** hotels in Saudi Arabian on date **dec 2021**. However, travel plans and hotels price may be affected by different sessions. I collected most details for all cities in Saudi Arabia.

Algorithm

Problem understanding , data description, data visualization , Experiments.

Tools

Pandas , Selenium , Beautiful Soup , Sklearn.

Communication

Conclusion

	Baseline	Dummy	Count	Polynomial Equ	Group-by price mean per location	Adding Interaction Terms	Box-Cox	LASSO	RIDGE
Train Score	0.096	0.124	0.1671	0.1694	0.169	0.225	0.643	0.64	0.64
Validation Score	0.1308	0.102	0.1325	0.1329	0.132	0.175	0.629	0.63	0.63

Best Model Train Score = 0.64

Best Model Validation Score = 0.63

Best Model Test Score = 0.63