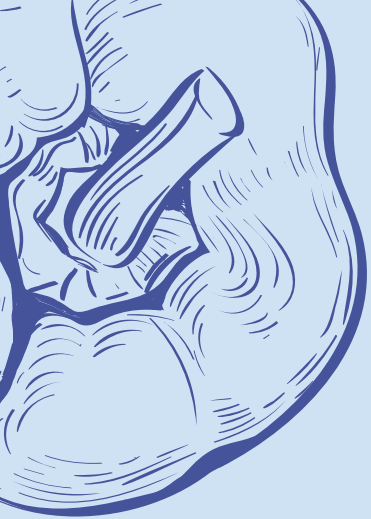
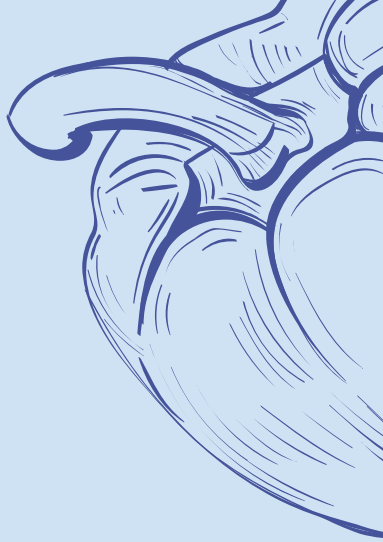
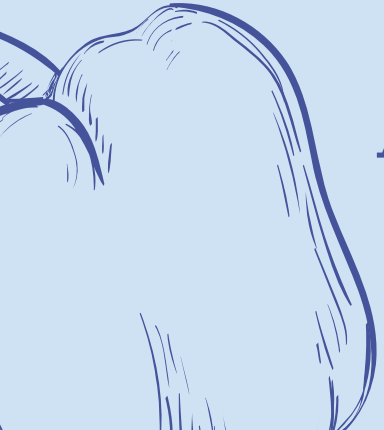




Predicting Restaurant Revenue

Asia Roy, Eric Rodriguez, Gabrielle Burgos, Jeremy Manning, and Seung Woo Choi

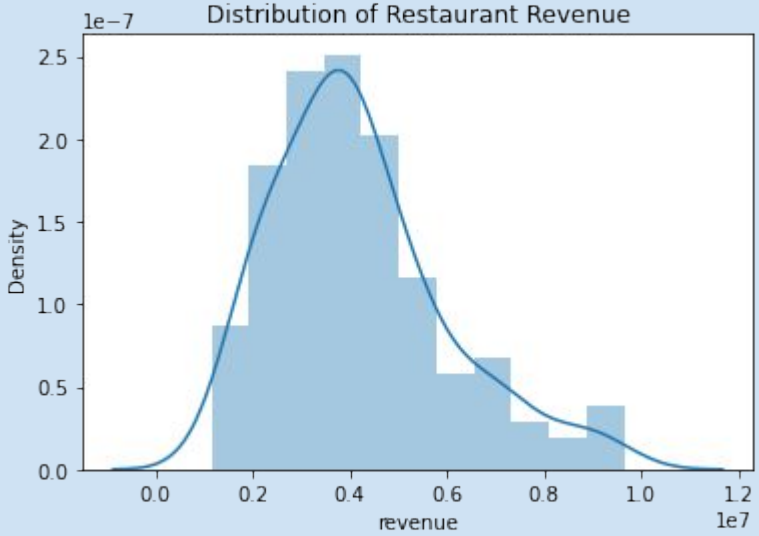


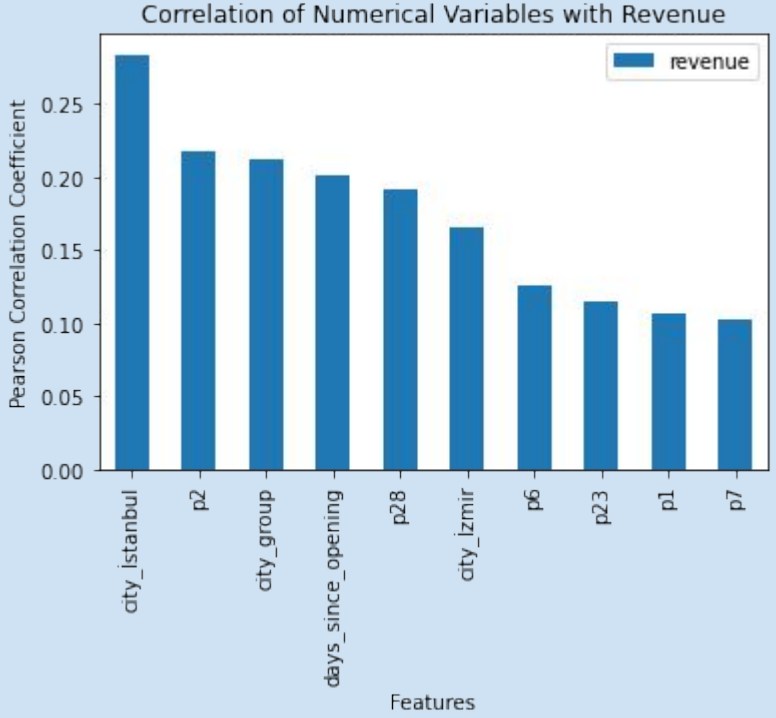
CONTENTS

Problem Statement

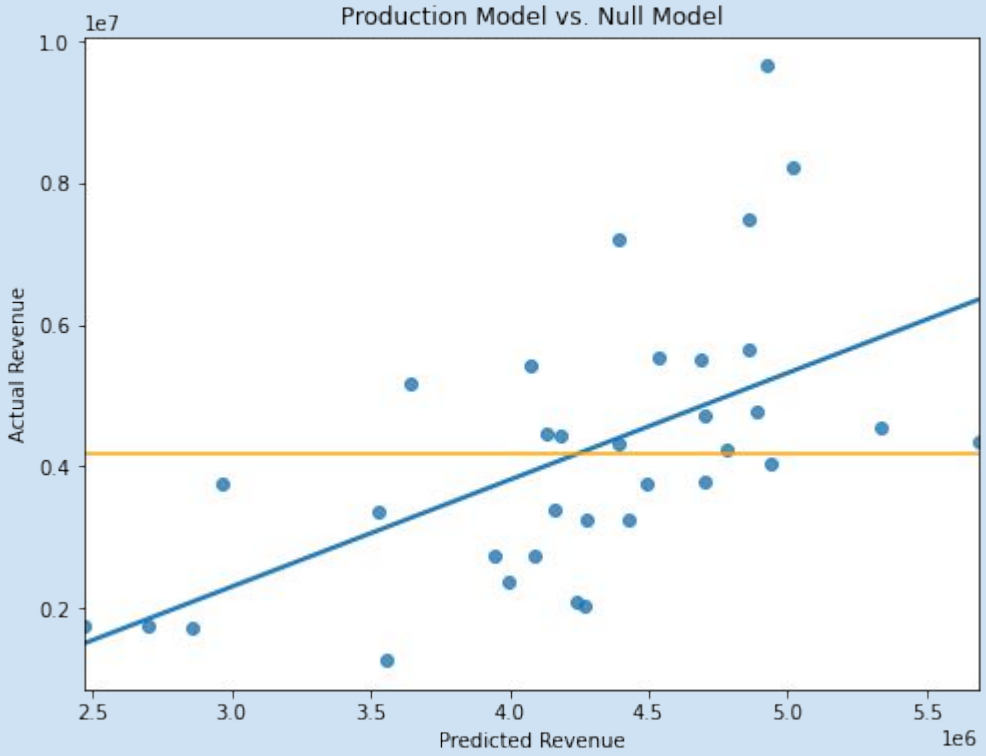
- **Goal 1:** Develop a model to predict annual restaurant sales of 100,000 regional locations
- **Goal 2:** Identify the factors that contribute to restaurant revenue

Exploratory Data Analysis





Production vs. Null Model



Modeling

- Null Model:
  - Mean of Revenue: $4,181,438
  - R^2 = 0.0
  - RMSE = $1,792,868

Model	R^2	RMSE
Multiple Linear Regression	0.208	$1,683,384
Random Forest Regression	0.293	$1,590,157

Production Model

Random Forest Regression

Conclusion

Size of the City

Big Cities

Location of the City

Istanbul, Turkey

Date Since Opening

Restaurants that have been around longer have higher revenue