Jigme and Raam's Flight prices prediction

Beijing ⮕ Shanghai   Shanghai ⮕ Beijing

Data Set

kaggle

- 300,000 ticket purchases - Beijing to Shanghai
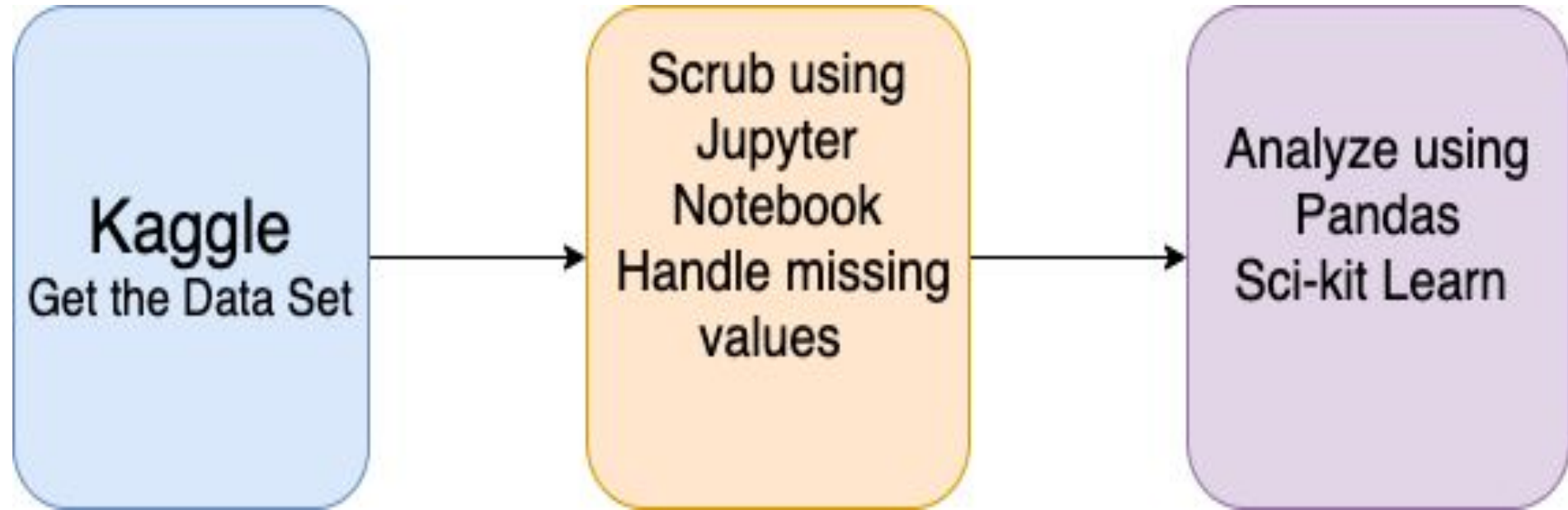- 300,000 ticket purchases - Shanghai to Beijing
- Jan 2019 - Aug 2019
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Target Variable

-Price

Predictors
- Departure Date
- Month
- Day of week
- Time of Day
- Time of Departure Date
- Purchase Date
- Month of Purchase Date
- Date of Purchase Date
- Time of Purchase Date

Data Process

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┌─────────────────┐        ┌─────────────────┐        ┌─────────────────┐
│     Kaggle      │        │   Scrub using   │        │  Analyze using  │
│ Get the Data Set│ ────▶  │     Jupyter     │ ────▶  │     Pandas      │
│                 │        │    Notebook     │        │  Sci-kit Learn  │
│                 │        │ Handle missing  │        │                 │
│                 │        │     values      │        │                 │
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Insights - Beijing to Shanghai $R^2 = 0.71$

Layover - $14 in savings

Days in advance ticket was purchased - $18 in savings - 1-2 weeks in advance
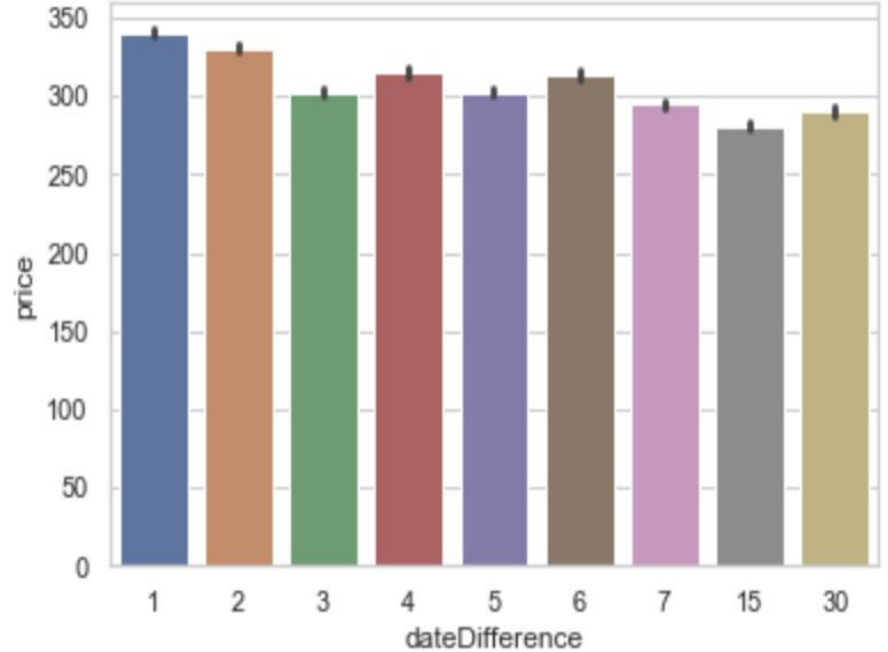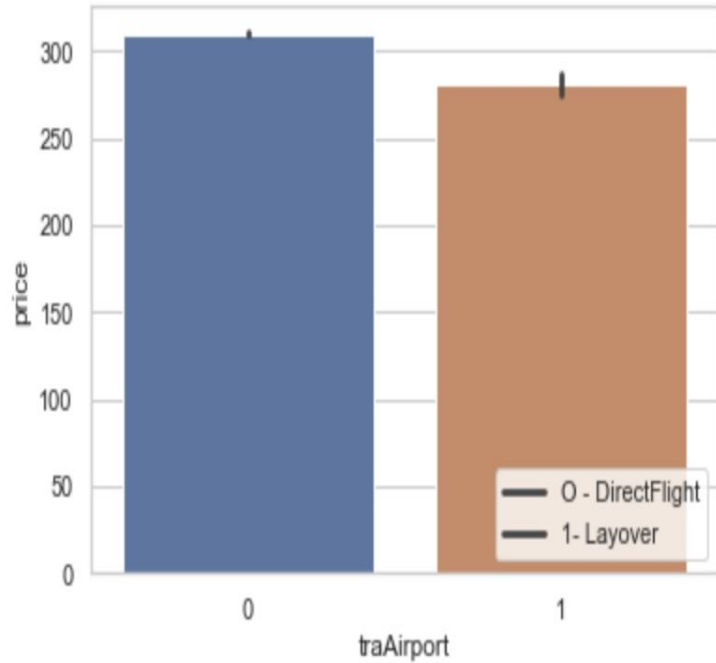
Cheapest months to fly - $20 in savings by not flying in January

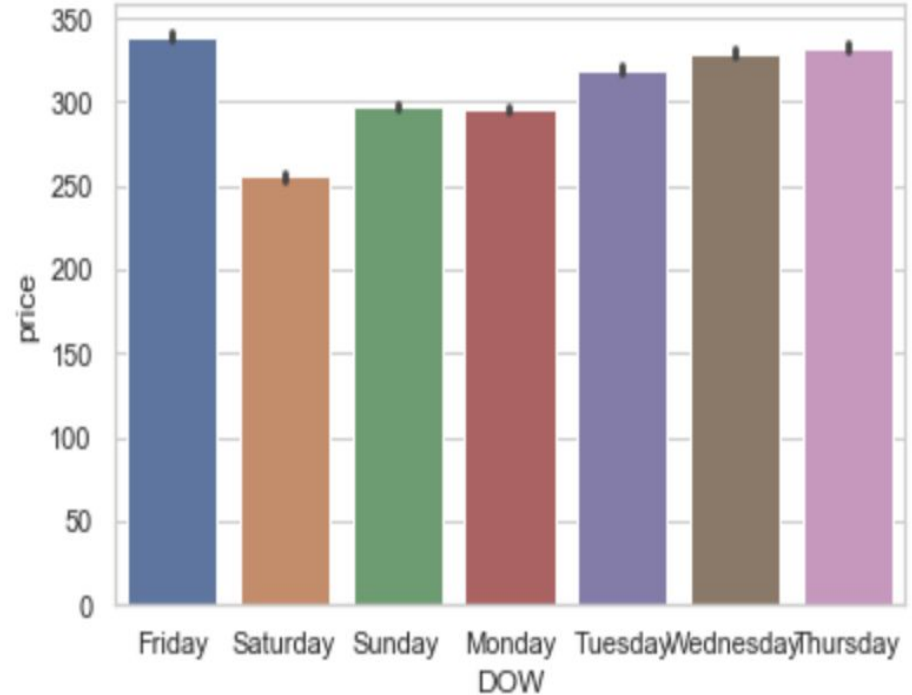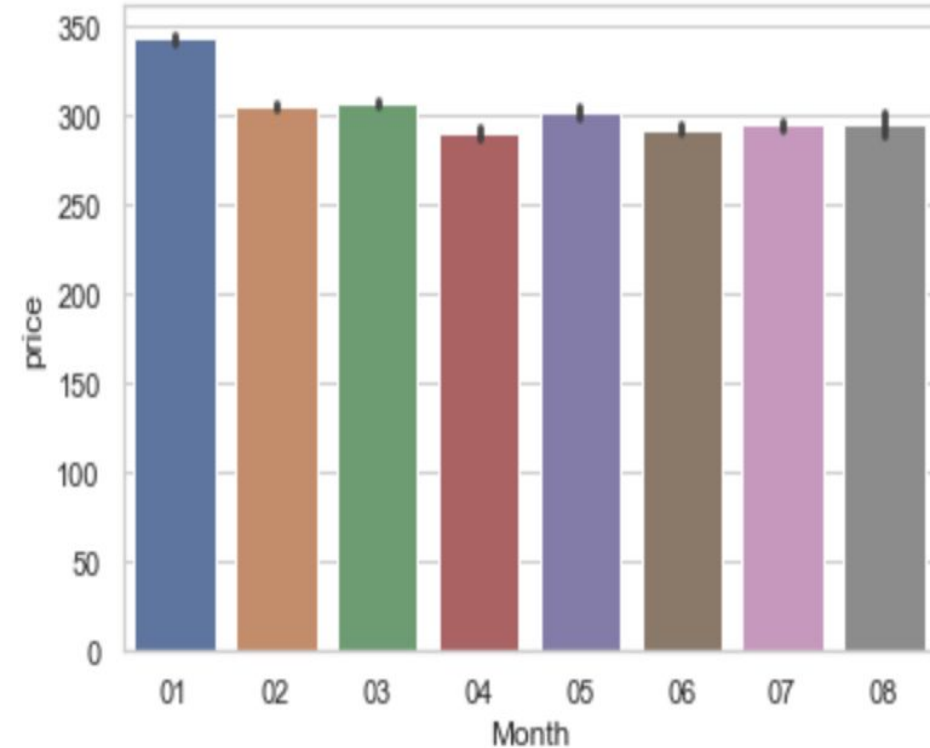Cheapest Day of Week to Depart - Save $62 flying on Saturday
                                                        Save $40 flying Sun-Monday

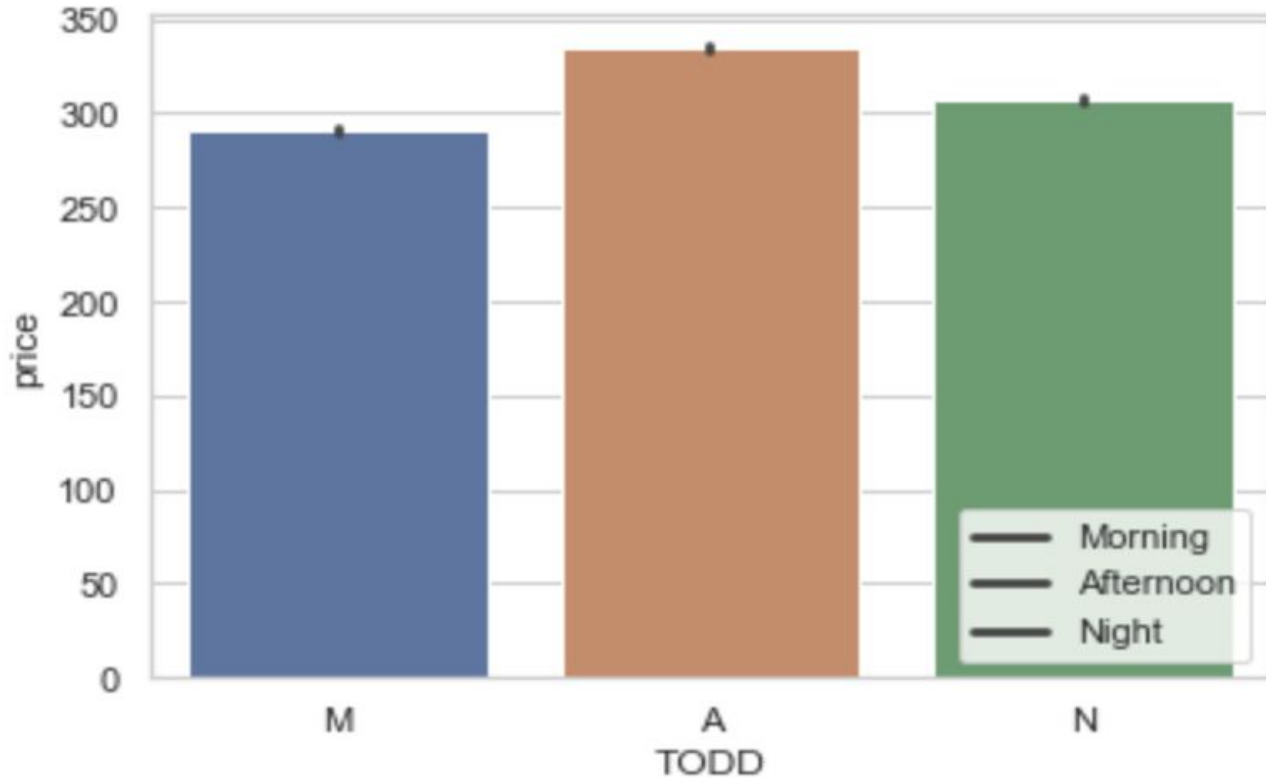Cheapest Time of Day to Fly - $36 in savings departing from 6 am to Noon

Visualizations - Beijing to Shanghai

Visualizations - Beijing to Shanghai

More Visualization - Beijing to Shanghai

Insights - Shanghai to Beijing $R^2 = 0.70$

Layover - $30 in savings

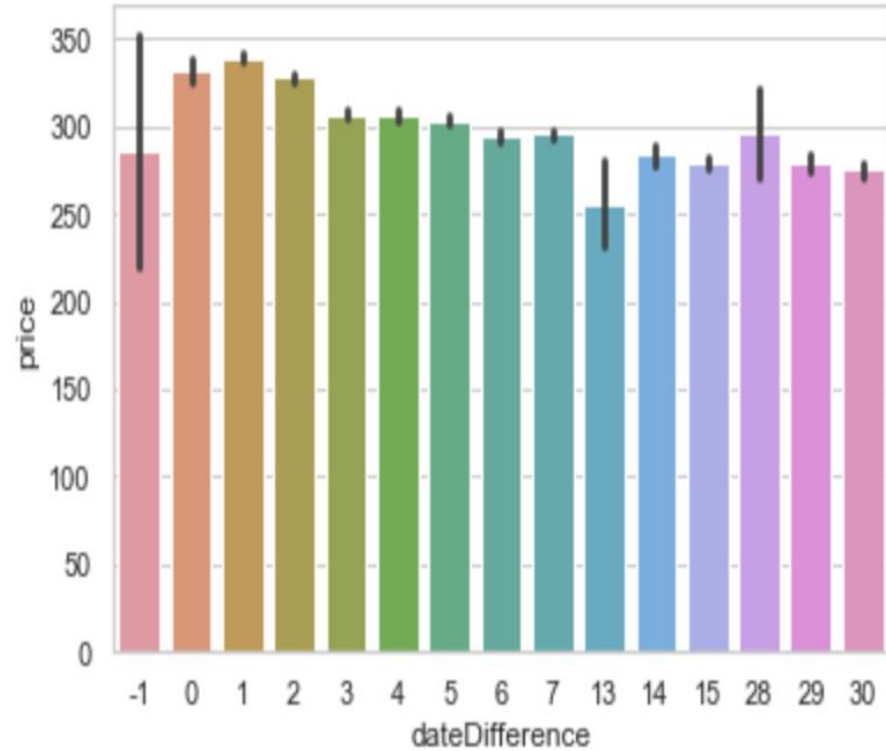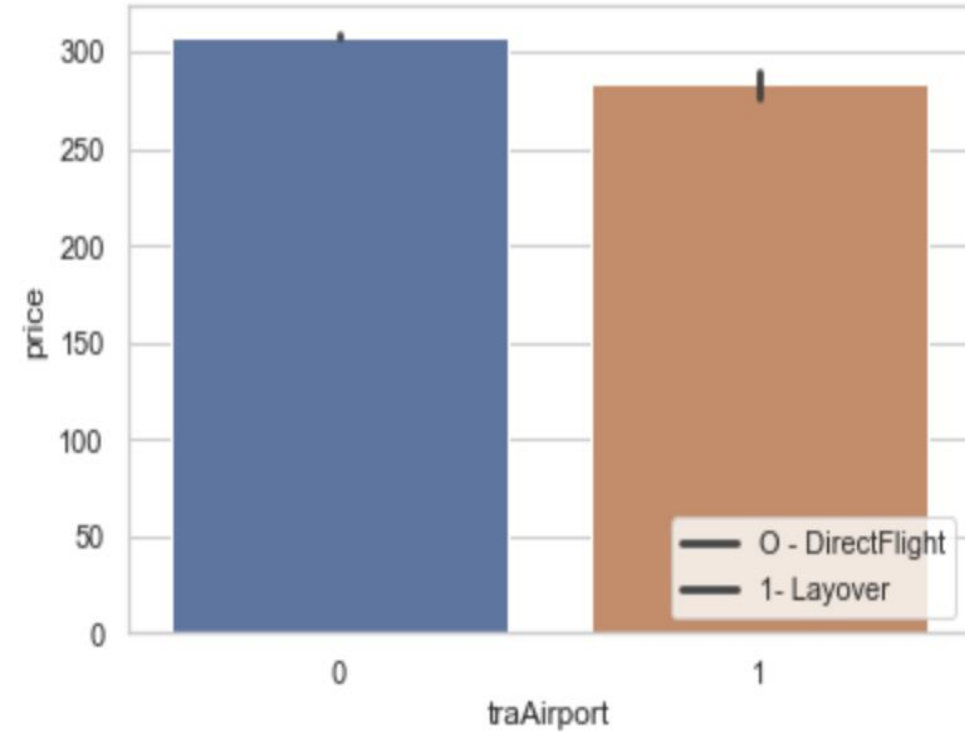Days in advance ticket was purchased - $18 in savings - 1-2 weeks in advance

Cheapest months to fly - $20 in savings by not flying in January

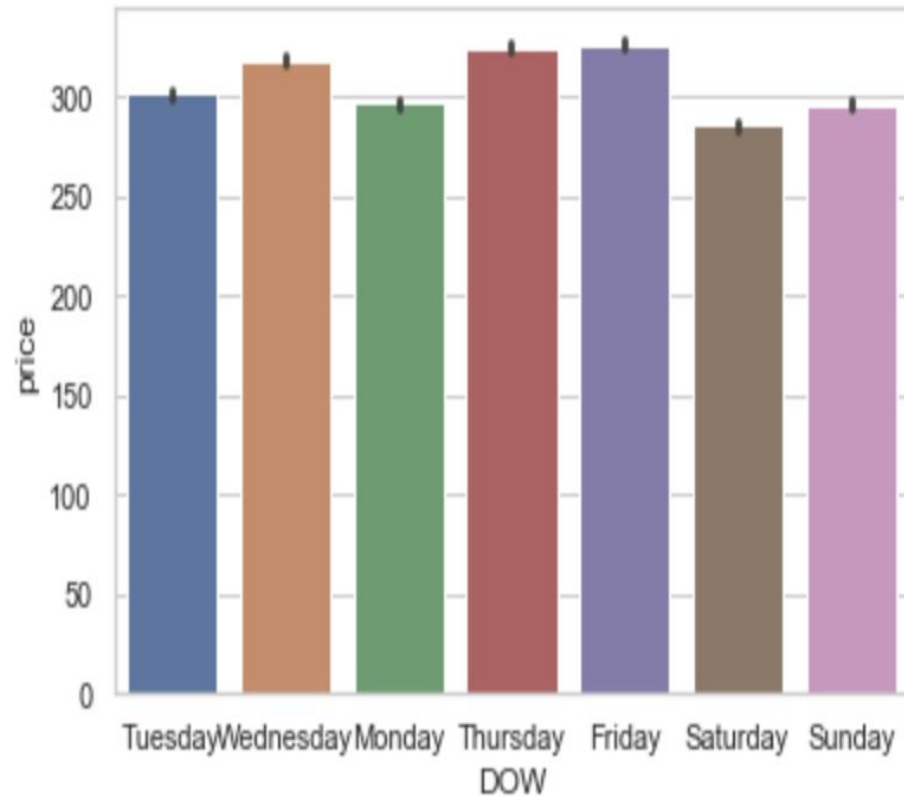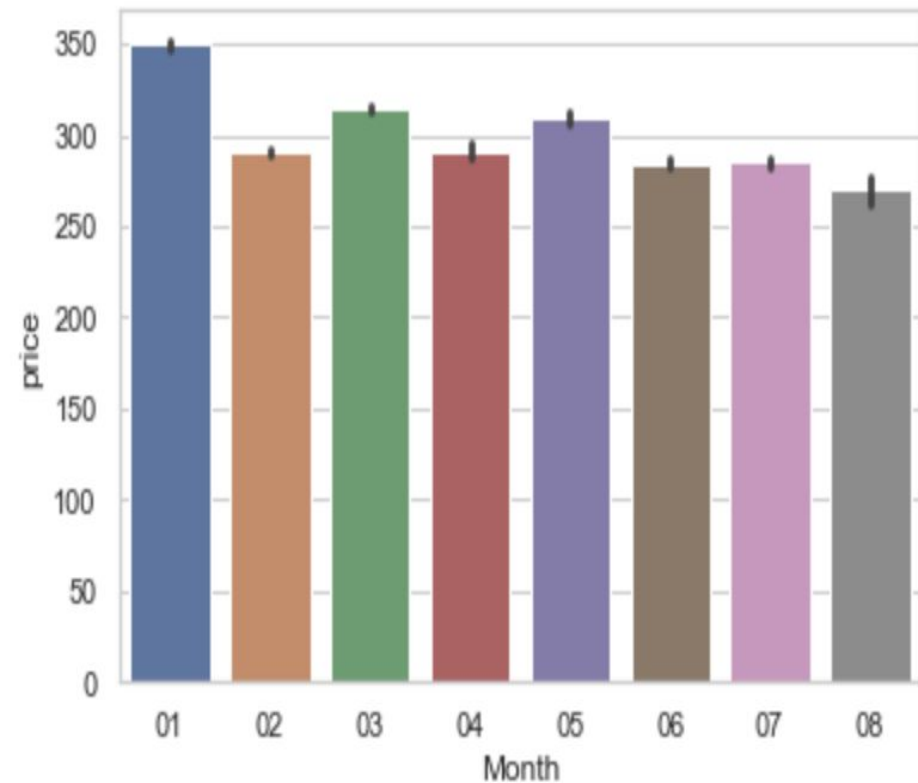Cheapest Day of Week to Depart - Save $37 flying on Saturday
Save $20 flying Sun-Mon-Tues

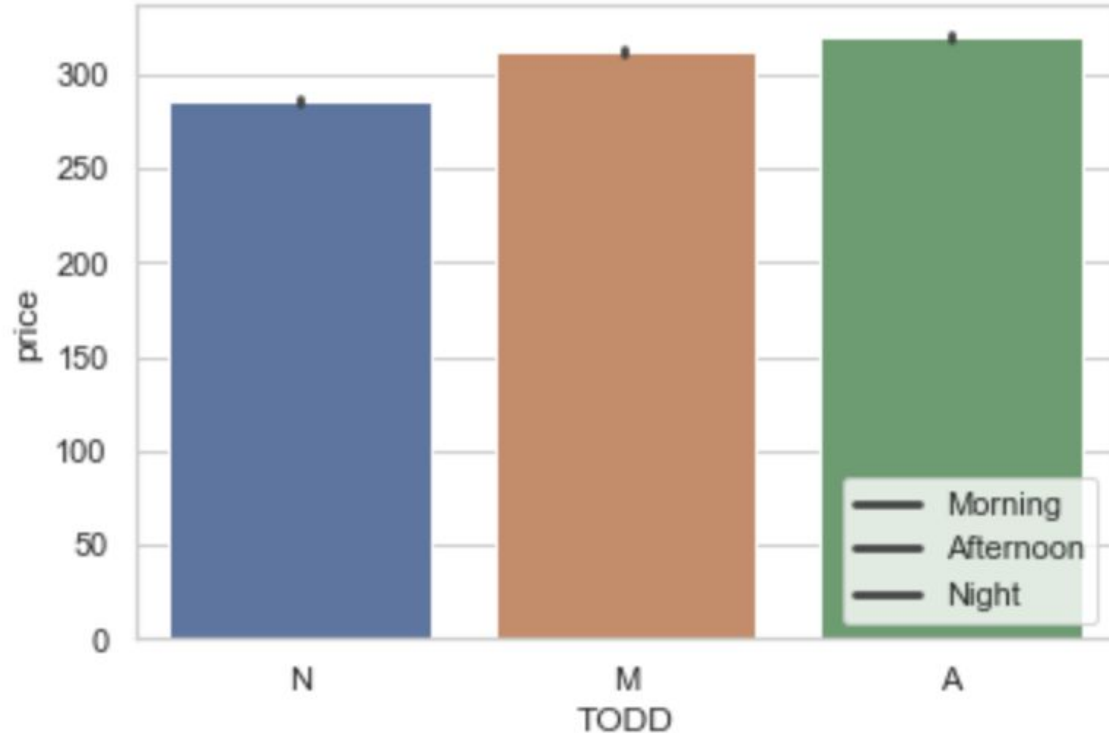Cheapest Time of Day to Fly - $28 in savings departing from 6pm to Midnight

Visualizations - Shanghai to Beijing

Visualizations - Shanghai to Beijing

Visualizations - Shanghai to Beijing

Further Exploration

- Data Set that includes ticket purchases from January - December

- Historical data set of ticket purchases