CS6140 Project

Authors

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Description of problem

Airbnb is a popular online company through which property owners can short-term rent their space to consumers as an alternative to hotels. Using data on Airbnb property listings in Boston, we will develop and test methods for determining the optimal price per night an owner should set for their property.

Summary of data

The Inside Airbnb project by Murray Cox has collected public Airbnb listing data for 40+ popular international cities. We will use the Boston dataset containing ~5000 property listings and their features for the Boston area. (http://insideairbnb.com/get-the-data.html)

Features

- super_host? (categorical) [yes/no]
- verified_host? (categorical) [yes/no]
- zip_code (categorical) [...]
- property_type (categorical) [House, Apartment, etc.]
- room_type (categorical) [Shared Room, Private Room, etc.]
- accomodates (continuous)
- bathrooms (continuous)
- bedrooms (continuous)
- beds (continuous)
- bed_type (categorical) [Real Bed, Futon, etc.]
- minimum_nights (continuous)
- cancelation_policy (ordered categorical) [Flexible, Moderate, Strict]
- **price** (continuous)

One-variable summary statistics

summary(boston)

```
##
          X
                     accommodates
                                        bathrooms
                                                           bedrooms
                            : 1.000
                                              :0.000
                                                               : 0.000
##
    Min.
                1
                                      Min.
##
    1st Qu.:1215
                    1st Qu.: 2.000
                                      1st Qu.:1.000
                                                       1st Qu.: 1.000
                    Median : 3.000
                                      Median :1.000
##
    Median:2444
                                                       Median : 1.000
                            : 3.308
    Mean
            :2439
                    Mean
                                      Mean
                                              :1.247
                                                       Mean
                                                               : 1.341
                    3rd Qu.: 4.000
##
    3rd Qu.:3660
                                      3rd Qu.:1.000
                                                       3rd Qu.: 2.000
            :4870
##
    Max.
                            :16.000
                                              :6.000
                                                       Max.
                                                               :10.000
##
         beds
                          price
                                        guests_included
                                                          minimum_nights
    Min.
           : 0.000
                      Min.
                                  0.0
                                        Min.
                                                : 1.000
                                                           Min.
                                                                  : 1.000
```

```
## 1st Qu.: 1.000
                    1st Qu.: 80.0
                                    1st Qu.: 1.000
                                                     1st Qu.: 1.000
## Median : 1.000
                    Median : 140.0
                                   Median : 1.000
                                                     Median: 2.000
         : 1.754
                    Mean : 173.1
                                    Mean : 1.529
                                                          : 3.541
## Mean
                                                     Mean
## 3rd Qu.: 2.000
                    3rd Qu.: 200.0
                                     3rd Qu.: 2.000
                                                     3rd Qu.: 3.000
## Max.
          :16.000
                    Max.
                           :4000.0
                                    {\tt Max.}
                                            :16.000
                                                     Max.
                                                            :365.000
## number of reviews host is superhost host identity verified
         : 0.00
                            :0.0000
## Min.
                     Min.
                                      Min.
                                             :0.0000
## 1st Qu.: 1.00
                     1st Qu.:0.0000
                                      1st Qu.:0.0000
## Median : 7.00
                    Median :0.0000
                                      Median :1.0000
## Mean
         : 24.79
                   Mean :0.1934
                                      Mean
                                            :0.6017
## 3rd Qu.: 28.00
                     3rd Qu.:0.0000
                                       3rd Qu.:1.0000
                                      Max.
## Max.
          :401.00
                     Max.
                            :1.0000
                                             :1.0000
## instant bookable is business travel ready
## Min.
          :0.0000 Min.
                          :0.000
## 1st Qu.:0.0000
                    1st Qu.:0.000
## Median :0.0000
                    Median :0.000
## Mean
          :0.3499
                          :0.154
                    Mean
## 3rd Qu.:1.0000
                    3rd Qu.:0.000
## Max.
          :1.0000
                    Max.
                           :1.000
## X.Users.philip.School.Machine.Learning.Project.CS6140 project.CS6140 project proposal.Rmd02108
## Min.
          :0.00000
## 1st Qu.:0.00000
## Median :0.00000
## Mean
          :0.02283
## 3rd Qu.:0.00000
          :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02108.0211
          :0.0000000
## Min.
## 1st Qu.:0.0000000
## Median :0.000000
## Mean
         :0.0002076
## 3rd Qu.:0.0000000
          :1.0000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02109
## Min.
          :0.00000
## 1st Qu.:0.00000
## Median :0.00000
## Mean
          :0.01619
## 3rd Qu.:0.00000
## Max.
          :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140 project.CS6140 project proposal.Rmd02110
## Min.
          :0.000000
## 1st Qu.:0.000000
## Median :0.000000
## Mean
          :0.006434
## 3rd Qu.:0.000000
          :1.000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02111
## Min.
          :0.00000
## 1st Qu.:0.00000
## Median :0.00000
## Mean
         :0.03321
## 3rd Qu.:0.00000
## Max. :1.00000
```

```
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02113
## Min.
          :0.00000
## 1st Qu.:0.00000
## Median :0.00000
## Mean
          :0.03238
## 3rd Qu.:0.00000
          :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02114
## Min.
           :0.00000
## 1st Qu.:0.00000
## Median :0.00000
## Mean
         :0.06517
## 3rd Qu.:0.00000
## Max.
          :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02115
## Min.
          :0.00000
## 1st Qu.:0.00000
## Median :0.00000
## Mean
         :0.04857
## 3rd Qu.:0.00000
## Max.
          :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02116
## Min.
           :0.0000
## 1st Qu.:0.0000
## Median :0.0000
## Mean
          :0.0988
## 3rd Qu.:0.0000
           :1.0000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02118
## Min.
          :0.00000
## 1st Qu.:0.00000
## Median :0.00000
          :0.05957
## Mean
## 3rd Qu.:0.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02119
## Min.
          :0.00000
## 1st Qu.:0.00000
## Median :0.00000
## Mean
         :0.03321
## 3rd Qu.:0.00000
## Max.
          :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02120
          :0.00000
## Min.
## 1st Qu.:0.00000
## Median :0.00000
## Mean
          :0.01889
## 3rd Qu.:0.00000
## Max.
          :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02121
## Min.
          :0.00000
## 1st Qu.:0.00000
## Median: 0.00000
## Mean :0.01266
```

```
## 3rd Qu.:0.00000
## Max.
          :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02122
## Min.
           :0.00000
## 1st Qu.:0.00000
## Median :0.00000
         :0.01536
## Mean
## 3rd Qu.:0.00000
## Max.
          :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02124
           :0.00000
## 1st Qu.:0.00000
## Median :0.00000
## Mean
         :0.02615
## 3rd Qu.:0.00000
## Max.
          :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02125
           :0.00000
## 1st Qu.:0.00000
## Median :0.00000
## Mean
          :0.03549
## 3rd Qu.:0.00000
## Max.
          :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140 project.CS6140 project proposal.Rmd02126
## Min.
          :0.000000
## 1st Qu.:0.000000
## Median :0.000000
          :0.007057
## Mean
## 3rd Qu.:0.000000
## Max.
          :1.000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02127
## Min.
          :0.00000
## 1st Qu.:0.00000
## Median :0.00000
## Mean
          :0.05542
## 3rd Qu.:0.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02128
## Min.
           :0.00000
## 1st Qu.:0.00000
## Median :0.00000
## Mean
          :0.05106
## 3rd Qu.:0.00000
## Max.
          :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02129
## Min.
           :0.00000
## 1st Qu.:0.00000
## Median :0.00000
## Mean
          :0.02968
## 3rd Qu.:0.00000
          :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02130
## Min.
           :0.00000
## 1st Qu.:0.00000
```

```
## Median :0.00000
## Mean
         :0.08676
## 3rd Qu.:0.00000
## Max.
          :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02131
          :0.00000
## Min.
## 1st Qu.:0.00000
## Median :0.00000
## Mean :0.02138
## 3rd Qu.:0.00000
## Max.
          :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02132
## Min.
          :0.00000
## 1st Qu.:0.00000
## Median :0.00000
## Mean
         :0.01183
## 3rd Qu.:0.00000
## Max.
          :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02134
          :0.00000
## 1st Qu.:0.00000
## Median :0.00000
## Mean
         :0.05915
## 3rd Qu.:0.00000
## Max.
         :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02134.1704
          :0.0000000
## 1st Qu.:0.0000000
## Median :0.0000000
         :0.0002076
## Mean
## 3rd Qu.:0.0000000
## Max.
          :1.0000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02135
## Min.
          :0.00000
## 1st Qu.:0.00000
## Median :0.00000
## Mean :0.05729
## 3rd Qu.:0.00000
## Max.
          :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02136
          :0.000000
## 1st Qu.:0.000000
## Median :0.000000
## Mean :0.009132
## 3rd Qu.:0.000000
## Max.
         :1.000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02138
          :0.0000000
## 1st Qu.:0.0000000
## Median :0.000000
## Mean
          :0.0004151
## 3rd Qu.:0.0000000
## Max.
          :1.0000000
## X.Users.philip.School.Machine.Learning.Project.CS6140 project.CS6140 project proposal.Rmd02139
```

```
## Min.
          :0.0000000
## 1st Qu.:0.0000000
## Median :0.000000
## Mean :0.0006227
## 3rd Qu.:0.0000000
## Max.
          :1.0000000
## X.Users.philip.School.Machine.Learning.Project.CS6140 project.CS6140 project proposal.Rmd02142
## Min.
          :0.0000000
## 1st Qu.:0.0000000
## Median :0.000000
## Mean :0.0002076
## 3rd Qu.:0.0000000
## Max.
          :1.0000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02143
## Min.
          :0.0000000
## 1st Qu.:0.0000000
## Median :0.000000
## Mean :0.0002076
## 3rd Qu.:0.0000000
## Max.
          :1.0000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02145
## Min. :0.000000
## 1st Qu.:0.000000
## Median :0.000000
## Mean :0.001245
## 3rd Qu.:0.000000
## Max. :1.000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02150
## Min. :0.000000
## 1st Qu.:0.0000000
## Median :0.000000
## Mean :0.0002076
## 3rd Qu.:0.0000000
## Max.
         :1.0000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02151
## Min.
         :0.0000000
## 1st Qu.:0.0000000
## Median :0.000000
## Mean :0.0004151
## 3rd Qu.:0.000000
## Max. :1.000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02152
         :0.0000000
## Min.
## 1st Qu.:0.0000000
## Median :0.000000
## Mean :0.0006227
## 3rd Qu.:0.0000000
## Max. :1.0000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02163
## Min. :0.000000
## 1st Qu.:0.0000000
## Median :0.0000000
## Mean :0.0006227
## 3rd Qu.:0.0000000
```

```
## Max.
          :1.0000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02186
## Min.
         :0.0000000
## 1st Qu.:0.0000000
## Median :0.0000000
## Mean :0.0002076
## 3rd Qu.:0.0000000
## Max. :1.000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02199
## Min. :0.000000
## 1st Qu.:0.0000000
## Median :0.000000
## Mean :0.0004151
## 3rd Qu.:0.0000000
## Max.
         :1.0000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02210
## Min. :0.00000
## 1st Qu.:0.00000
## Median: 0.00000
## Mean :0.01204
## 3rd Qu.:0.00000
## Max.
         :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02215
## Min. :0.00000
## 1st Qu.:0.00000
## Median: 0.00000
## Mean :0.06434
## 3rd Qu.:0.00000
## Max.
         :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02445
## Min. :0.000000
## 1st Qu.:0.000000
## Median :0.000000
## Mean :0.001245
## 3rd Qu.:0.000000
## Max.
          :1.000000
## X.Users.philip.School.Machine.Learning.Project.CS6140 project.CS6140 project proposal.Rmd02446
## Min.
          :0.0000000
## 1st Qu.:0.0000000
## Median :0.000000
## Mean :0.0008302
## 3rd Qu.:0.0000000
## Max.
          :1.0000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02458
## Min.
         :0.0000000
## 1st Qu.:0.0000000
## Median :0.000000
## Mean :0.0002076
## 3rd Qu.:0.0000000
## Max.
         :1.0000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02467
## Min.
         :0.00000
## 1st Qu.:0.00000
## Median: 0.00000
```

```
## Mean
          :0.00166
## 3rd Qu.:0.00000
          :1.00000
## Max.
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmd02472
         :0.0000000
## 1st Qu.:0.0000000
## Median :0.000000
## Mean :0.0002076
## 3rd Qu.:0.0000000
## Max. :1.000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.RmdBed...Brea
## Min. :0.000000
## 1st Qu.:0.000000
## Median :0.000000
## Mean :0.005604
## 3rd Qu.:0.000000
## Max. :1.000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.RmdBoat
## Min. :0.00000
## 1st Qu.:0.000000
## Median :0.000000
## Mean :0.002906
## 3rd Qu.:0.000000
         :1.000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.RmdBoutique.h
## Min.
          :0.000000
## 1st Qu.:0.000000
## Median :0.000000
## Mean :0.002076
## 3rd Qu.:0.000000
## Max. :1.000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.RmdCondominiu
## Min. :0.00000
## 1st Qu.:0.00000
## Median :0.00000
## Mean :0.09527
## 3rd Qu.:0.00000
## Max.
         :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.RmdDorm
## Min. :0.000000
## 1st Qu.:0.0000000
## Median :0.0000000
## Mean :0.0006227
## 3rd Qu.:0.0000000
## Max. :1.0000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.RmdGuest.suit
## Min. :0.00000
## 1st Qu.:0.000000
## Median :0.000000
## Mean :0.002491
## 3rd Qu.:0.000000
## Max. :1.000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.RmdGuesthouse
```

Min. :0.000000

```
## 1st Qu.:0.0000000
## Median: 0.0000000
         :0.0008302
## Mean
## 3rd Qu.:0.0000000
          :1.0000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.RmdHostel
          :0.0000000
## 1st Qu.:0.0000000
## Median :0.0000000
## Mean :0.0008302
## 3rd Qu.:0.0000000
## Max.
         :1.0000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.RmdHouse
## Min. :0.0000
## 1st Qu.:0.0000
## Median :0.0000
## Mean
         :0.1615
## 3rd Qu.:0.0000
## Max.
          :1.0000
## X.Users.philip.School.Machine.Learning.Project.CS6140 project.CS6140 project proposal.RmdIn.law
## Min.
         :0.000000
## 1st Qu.:0.000000
## Median :0.000000
## Mean :0.001245
## 3rd Qu.:0.000000
          :1.000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.RmdLoft
         :0.000000
## Min.
## 1st Qu.:0.000000
## Median :0.000000
## Mean :0.007057
## 3rd Qu.:0.000000
## Max. :1.000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.RmdOther
## Min. :0.00000
## 1st Qu.:0.00000
## Median :0.00000
## Mean :0.01743
## 3rd Qu.:0.00000
## Max.
         :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.RmdServiced.a
## Min.
          :0.0000000
## 1st Qu.:0.0000000
## Median :0.0000000
         :0.0002076
## Mean
## 3rd Qu.:0.0000000
         :1.0000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.RmdTimeshare
## Min.
          :0.0000000
## 1st Qu.:0.0000000
## Median :0.000000
## Mean :0.0006227
## 3rd Qu.:0.0000000
## Max. :1.0000000
```

```
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.RmdTownhouse
## Min.
          :0.00000
## 1st Qu.:0.00000
## Median :0.00000
## Mean
         :0.01494
## 3rd Qu.:0.00000
          :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.RmdVilla
## Min.
          :0.000000
## 1st Qu.:0.000000
## Median :0.000000
## Mean
         :0.002283
## 3rd Qu.:0.000000
## Max.
         :1.000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.RmdPrivate.ro
## Min.
          :0.0000
## 1st Qu.:0.0000
## Median :0.0000
## Mean
         :0.3649
## 3rd Qu.:1.0000
## Max.
          :1.0000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.RmdShared.room
## Min.
          :0.00000
## 1st Qu.:0.00000
## Median :0.00000
## Mean
          :0.01162
## 3rd Qu.:0.00000
## Max.
          :1.00000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.RmdCouch
## Min.
          :0.000000
## 1st Qu.:0.000000
## Median :0.00000
## Mean :0.001453
## 3rd Qu.:0.000000
          :1.000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.RmdFuton
## Min.
          :0.000000
## 1st Qu.:0.000000
## Median :0.000000
## Mean
         :0.008302
## 3rd Qu.:0.000000
          :1.000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.RmdPull.out.S
## Min.
          :0.000000
## 1st Qu.:0.000000
## Median :0.000000
## Mean :0.004981
## 3rd Qu.:0.000000
          :1.000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.RmdReal.Bed
          :0.0000
## Min.
## 1st Qu.:1.0000
## Median :1.0000
## Mean :0.9776
```

```
## 3rd Qu.:1.0000
## Max.
         :1.0000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmdmoderate
## Min.
          :0.0000
## 1st Qu.:0.0000
## Median :0.0000
## Mean
         :0.2397
## 3rd Qu.:0.0000
## Max.
          :1.0000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmdstrict
          :0.0000
## 1st Qu.:0.0000
## Median :1.0000
## Mean
         :0.5176
## 3rd Qu.:1.0000
## Max.
          :1.0000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmdsuper_stri
## 1st Qu.:0.000000
## Median :0.000000
## Mean
         :0.008717
## 3rd Qu.:0.000000
## Max.
          :1.000000
## X.Users.philip.School.Machine.Learning.Project.CS6140_project.CS6140_project_proposal.Rmdsuper_stri
          :0.0000000
## Min.
## 1st Qu.:0.0000000
## Median :0.000000
         :0.0004151
## Mean
## 3rd Qu.:0.0000000
## Max.
          :1.0000000
```

Two-variable summary statistics

Findings

Highly correlated predictors

Categorical predictors

The categorical predictors in the dataset are "host_is_superhost", "host_identity_verified", "zipcode", "property_type", "room_type", "bed_type", "instant_bookable", "is_business_travel_ready", and "cancellation_policy".

Missing values

There were 53 rows with missing values. This was a small number, so we removed them.

Outliers

Methods

- We will perform and compare a variety of regression techniques, including linear regression and kernel methods. The comparison between the results of these methods is straightforward.
- We will also consider approaching the problem from a classification point of view, dividing the prices into ordered categorical ranges. Doing this will allow us to investigate the use of classification methods such as logistic regression and tree-based approaches.
- We will research/develop a means of comparing the results of the regression and classification methods.