

paskek_q1

Question 1

```
##      Year      Month      DayofMonth      DayOfWeek
##  Min.   :2008   Min.   : 1.00   Min.   : 1.00   Min.   :1.000
##  1st Qu.:2008   1st Qu.: 3.00   1st Qu.: 8.00   1st Qu.:2.000
##  Median :2008   Median : 6.00   Median :16.00   Median :4.000
##  Mean   :2008   Mean   : 6.29   Mean   :15.73   Mean   :3.902
##  3rd Qu.:2008   3rd Qu.: 9.00   3rd Qu.:23.00   3rd Qu.:6.000
##  Max.   :2008   Max.   :12.00   Max.   :31.00   Max.   :7.000
##
##      DepTime      CRSDepTime      ArrTime      CRSArrTime
##  Min.   : 1      Min.   : 55   Min.   : 1      Min.   : 5
##  1st Qu.: 917    1st Qu.: 915   1st Qu.:1107   1st Qu.:1115
##  Median :1329    Median :1320   Median :1531   Median :1535
##  Mean   :1329    Mean   :1320   Mean   :1487   Mean   :1505
##  3rd Qu.:1728    3rd Qu.:1720   3rd Qu.:1903   3rd Qu.:1902
##  Max.   :2400    Max.   :2346   Max.   :2400   Max.   :2400
##  NA's   :1413    NA's   :1567
##  UniqueCarrier      FlightNum      TailNum      ActualElapsedTime
##  WN      :34876      Min.   : 1      : 1104      Min.   : 22.0
##  AA      :19995      1st Qu.: 640    N678CA : 195    1st Qu.: 57.0
##  CO      : 9230      Median :1465    N511SW : 180    Median :125.0
##  YV      : 4994      Mean   :1917    N526SW : 176    Mean   :120.2
##  B6      : 4798      3rd Qu.:2653    N528SW : 172    3rd Qu.:164.0
##  XE      : 4618      Max.   :9741    N520SW : 168    Max.   :506.0
##  (Other):20749      (Other):97265   NA's   :1601
##  CRSElapsedTime      AirTime      ArrDelay      DepDelay
##  Min.   : 17.0      Min.   : 3.00   Min.   : -129.000   Min.   : -42.000
##  1st Qu.: 58.0      1st Qu.: 38.00   1st Qu.: -9.000    1st Qu.: -4.000
##  Median :130.0      Median :105.00   Median : -2.000    Median : 0.000
##  Mean   :122.1      Mean   : 99.81   Mean   : 7.065      Mean   : 9.171
##  3rd Qu.:165.0      3rd Qu.:142.00   3rd Qu.: 10.000    3rd Qu.: 8.000
##  Max.   :320.0      Max.   :402.00   Max.   : 948.000    Max.   :875.000
##  NA's   :11        NA's   :1601    NA's   :1601      NA's   :1413
##      Origin      Dest      Distance      TaxiIn
##  AUS      :49623   AUS      :49637   Min.   : 66      Min.   : 0.000
##  DAL      : 5583   DAL      : 5573   1st Qu.: 190     1st Qu.: 4.000
##  DFW      : 5508   DFW      : 5506   Median : 775     Median : 5.000
##  IAH      : 3704   IAH      : 3691   Mean   : 705     Mean   : 6.413
##  PHX      : 2786   PHX      : 2783   3rd Qu.:1085     3rd Qu.: 7.000
##  DEN      : 2719   DEN      : 2673   Max.   :1770     Max.   :143.000
##  (Other):29337   (Other):29397   NA's   :1567
##      TaxiOut      Cancelled      CancellationCode      Diverted
##  Min.   : 1.00      Min.   :0.000000      :97840      Min.   :0.000000
##  1st Qu.: 9.00      1st Qu.:0.000000      A: 719      1st Qu.:0.000000
##  Median :12.00      Median :0.000000      B: 605      Median :0.000000
##  Mean   :13.96      Mean   :0.01431      C: 96       Mean   :0.001824
##  3rd Qu.:16.00      3rd Qu.:0.000000      3rd Qu.:0.000000
##  Max.   :305.00      Max.   :1.000000      Max.   :1.000000
##  NA's   :1419
```

```

##   CarrierDelay    WeatherDelay      NASDelay    SecurityDelay
##   Min.   : 0.00   Min.   : 0.00   Min.   : 0.00   Min.   : 0.00
##   1st Qu.: 0.00   1st Qu.: 0.00   1st Qu.: 0.00   1st Qu.: 0.00
##   Median : 0.00   Median : 0.00   Median : 2.00   Median : 0.00
##   Mean   : 15.39   Mean   : 2.24   Mean   : 12.47   Mean   : 0.07
##   3rd Qu.: 16.00   3rd Qu.: 0.00   3rd Qu.: 16.00   3rd Qu.: 0.00
##   Max.   :875.00   Max.   :412.00   Max.   :367.00   Max.   :199.00
##   NA's   :79513   NA's   :79513   NA's   :79513   NA's   :79513
##   LateAircraftDelay
##   Min.   : 0.00
##   1st Qu.: 0.00
##   Median : 6.00
##   Mean   : 22.97
##   3rd Qu.: 30.00
##   Max.   :458.00
##   NA's   :79513

##
## Attaching package: 'dplyr'
##
## The following objects are masked from 'package:stats':
##
##   filter, lag
##
## The following objects are masked from 'package:base':
##
##   intersect, setdiff, setequal, union
##
## Loading required package: car
## Loading required package: lattice
## Loading required package: ggplot2
## Loading required package: mosaicData
##
## Attaching package: 'mosaic'
##
## The following object is masked from 'package:car':
##
##   logit
##
## The following objects are masked from 'package:dplyr':
##
##   count, do, tally
##
## The following objects are masked from 'package:stats':
##
##   binom.test, cor, cov, D, fivenum, IQR, median, prop.test,
##   quantile, sd, t.test, var
##
## The following objects are masked from 'package:base':
##
##   max, mean, min, prod, range, sample, sum

```

The following shows the number of cancelled flights by destination and airline leaving Austin. In otherwords, which locations not to fly to from Austin given the high number of cancellations.

```
counts <- table(flights$UniqueCarrier, flights$Dest)
barplot(counts, main="Cancelled Flights from Austin by Destination and Airline in 2008",
        xlab="Destination",
        legend = rownames(counts))
```

Cancelled Flights from Austin by Destination and Airline in 2008

