

FML ASSIGNMENT 1-JASWANTH BUDIGI

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1)Download data set any source

source kaggle link :<https://www.kaggle.com/datasets/saketk511/travel-dataset-guide-to-indias-must-see-places>

```
library(reader)
```

```
## Warning: package 'reader' was built under R version 4.3.2
```

```
## Loading required package: NCmisc
```

```
## Warning: package 'NCmisc' was built under R version 4.3.2
```

```
##
```

```
## Attaching package: 'reader'
```

```
## The following objects are masked from 'package:NCmisc':
```

```
##
```

```
##      cat.path, get.ext, rmv.ext
```

```
library(DescTools)
```

```
## Warning: package 'DescTools' was built under R version 4.3.2
```

```
##
```

```
## Attaching package: 'DescTools'
```

```
## The following object is masked from 'package:NCmisc':
```

```
##
```

```
##      Mode
```

2)import data set in R

```
Places_visit <- read.csv("C:/Users/jaswa/Downloads/Top Indian Places to Visit.csv")
View(Places_visit)
```

```
# using the summary inside the see min value and max value
summary(Places_visit)
```

```
##           X           Zone           State           City
## Min.      : 0   Length:325   Length:325   Length:325
## 1st Qu.: 81   Class :character   Class :character   Class :character
## Median :162   Mode  :character   Mode  :character   Mode  :character
## Mean    :162
## 3rd Qu.:243
## Max.    :324
##           Name           Type           Establishment.Year
## Length:325   Length:325   Length:325
## Class :character   Class :character   Class :character
## Mode  :character   Mode  :character   Mode  :character
##
##
##
## time.needed.to.visit.in.hrs Google.review.rating Entrance.Fee.in.INR
## Min.      :0.500           Min.      :1.400           Min.      : 0.0
## 1st Qu.:1.000           1st Qu.:4.400           1st Qu.: 0.0
## Median :1.500           Median :4.500           Median : 0.0
## Mean    :1.808           Mean    :4.486           Mean    :115.8
## 3rd Qu.:2.000           3rd Qu.:4.600           3rd Qu.: 40.0
## Max.    :7.000           Max.    :4.900           Max.    :7500.0
## Airport.with.50km.Radius Weekly.Off           Significance
## Length:325           Length:325           Length:325
## Class :character           Class :character           Class :character
## Mode  :character           Mode  :character           Mode  :character
##
##
##
## DSLR.Allowed           Number.of.google.review.in.lakhs Best.Time.to.visit
## Length:325           Min.      :0.0100           Length:325
## Class :character           1st Qu.:0.0590           Class :character
## Mode  :character           Median :0.1700           Mode  :character
##                               Mean    :0.4084
##                               3rd Qu.:0.5000
##                               Max.    :7.4000
```

```
# using the head function
head(Places_visit)
```

```
##   X   Zone State City           Name           Type Establishment.Year
## 1 0 Northern Delhi Delhi       India Gate War Memorial       1921
## 2 1 Northern Delhi Delhi       Humayun's Tomb       Tomb       1572
## 3 2 Northern Delhi Delhi       Akshardham Temple       Temple       2005
## 4 3 Northern Delhi Delhi Waste to Wonder Park       Theme Park       2019
## 5 4 Northern Delhi Delhi       Jantar Mantar Observatory       1724
## 6 5 Northern Delhi Delhi       Chandni Chowk       Market       1700
```

```
##   time.needed.to.visit.in.hrs Google.review.rating Entrance.Fee.in.INR
## 1                0.5                4.6                0
## 2                2.0                4.5                30
## 3                5.0                4.6                60
## 4                2.0                4.1                50
## 5                2.0                4.2                15
## 6                3.0                4.2                0
##   Airport.with.50km.Radius Weekly.Off Significance DSLR.Allowed
## 1                Yes      None      Historical      Yes
## 2                Yes      None      Historical      Yes
## 3                Yes      None      Religious      No
## 4                Yes      Monday Environmental      Yes
## 5                Yes      None      Scientific      Yes
## 6                Yes      Sunday      Market      Yes
##   Number.of.google.review.in.lakhs Best.Time.to.visit
## 1                2.60      Evening
## 2                0.40      Afternoon
## 3                0.40      Afternoon
## 4                0.27      Evening
## 5                0.31      Morning
## 6                0.25      Afternoon
```

3)Print descriptive statistics for selected categorical variables

#Mean

```
mean(Places_visit$time.needed.to.visit.in.hrs)
```

```
## [1] 1.807692
```

```
mean(Places_visit$Entrance.Fee.in.INR)
```

```
## [1] 115.8092
```

#median

```
median(Places_visit$time.needed.to.visit.in.hrs)
```

```
## [1] 1.5
```

```
median(Places_visit$Entrance.Fee.in.INR)
```

```
## [1] 0
```

```
# frequency of each unique value in the column
table(Places_visit$Significance)
```

```
##
##      Adventure      Agricultural      Archaeological      Architectural
```

```
##           5           1           1           4
##      Artistic      Botanical      Cultural      Educational
##           2           3          13           2
## Engineering Marvel      Entertainment      Environmental      Food
##           1           5           2           1
##      Historical      Market      Natural Wonder      Nature
##          78           1           2          47
##      Recreational      Religious      Scenic      Scientific
##          30          75          10           2
##      Shopping      Spiritual      Sports      Trekking
##           7           1           2           1
##      Wildlife
##          29
```

```
table(Places_visit$Zone)
```

```
##
##      Central      Eastern North Eastern      Northern      Southern
##          39          45          14          89          98
##      Western
##          40
```

```
#structure of the column Significance
str(Places_visit$Significance)
```

```
## chr [1:325] "Historical" "Historical" "Religious" "Environmental" ...
```

```
#understand the categorical variables
table(Places_visit$Best.Time.to.visit)
```

```
##
## Afternoon      All      All      Anytime      Evening      Morning      Night
##          44      164          1          1          26          88          1
```

```
#structure of the column Best time to visit,google review ratings
str(Places_visit$Best.Time.to.visit)
```

```
## chr [1:325] "Evening" "Afternoon" "Afternoon" "Evening" "Morning" ...
```

```
str(Places_visit$Google.review.rating)
```

```
## num [1:325] 4.6 4.5 4.6 4.1 4.2 4.2 4.5 4.5 4.2 4.6 ...
```

4)transforming the variables

```
log(Places_visit$time.needed.to.visit.in.hrs)
```

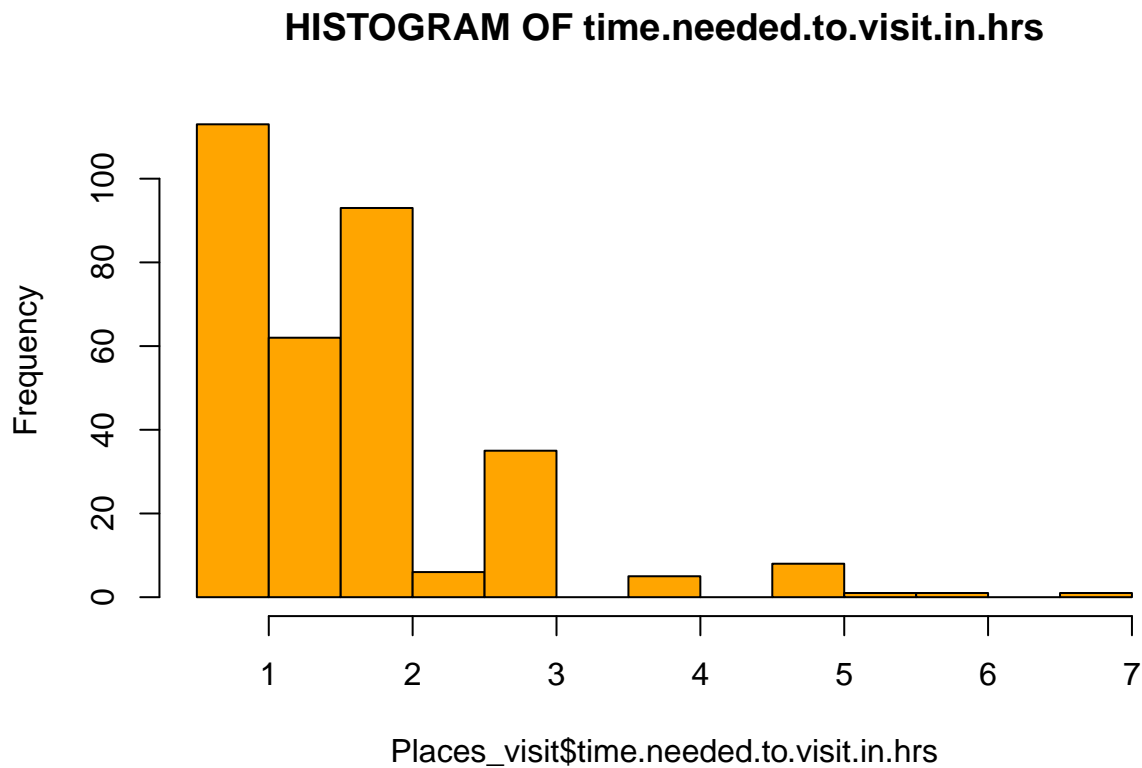
##	[1]	-0.6931472	0.6931472	1.6094379	0.6931472	0.6931472	1.0986123
##	[7]	0.0000000	0.6931472	0.0000000	0.6931472	0.6931472	0.0000000
##	[13]	1.0986123	1.0986123	0.0000000	1.6094379	0.6931472	0.0000000
##	[19]	0.0000000	1.0986123	0.6931472	0.0000000	0.6931472	0.6931472
##	[25]	1.6094379	1.3862944	1.6094379	0.6931472	0.4054651	0.0000000
##	[31]	-0.6931472	0.0000000	0.0000000	0.6931472	0.0000000	1.3862944
##	[37]	0.6931472	0.0000000	0.0000000	0.4054651	1.0986123	0.0000000
##	[43]	0.4054651	-0.6931472	0.6931472	0.0000000	0.0000000	1.0986123
##	[49]	0.6931472	1.0986123	0.4054651	0.0000000	0.6931472	0.0000000
##	[55]	0.4054651	1.0986123	0.6931472	0.0000000	0.0000000	0.6931472
##	[61]	0.6931472	0.6931472	0.6931472	0.4054651	0.6931472	0.6931472
##	[67]	0.4054651	0.6931472	1.0986123	0.9162907	0.6931472	0.6931472
##	[73]	1.0986123	1.0986123	0.4054651	0.0000000	0.6931472	1.0986123
##	[79]	1.9459101	0.0000000	0.6931472	0.9162907	1.0986123	0.4054651
##	[85]	0.0000000	0.6931472	0.6931472	0.0000000	0.6931472	0.6931472
##	[91]	0.4054651	0.0000000	0.4054651	0.0000000	0.6931472	0.6931472
##	[97]	0.4054651	0.6931472	0.0000000	0.0000000	0.4054651	1.0986123
##	[103]	1.0986123	0.6931472	0.6931472	0.4054651	0.6931472	0.0000000
##	[109]	0.0000000	0.4054651	1.7047481	0.6931472	1.0986123	0.0000000
##	[115]	0.6931472	1.0986123	0.4054651	0.4054651	0.4054651	0.0000000
##	[121]	0.4054651	1.0986123	0.0000000	0.6931472	1.0986123	0.6931472
##	[127]	0.4054651	0.4054651	0.0000000	0.0000000	0.0000000	0.4054651
##	[133]	0.6931472	0.6931472	0.4054651	1.0986123	0.6931472	0.4054651
##	[139]	0.0000000	0.9162907	0.4054651	0.0000000	0.4054651	1.0986123
##	[145]	1.0986123	0.4054651	0.0000000	0.6931472	0.0000000	0.4054651
##	[151]	0.0000000	0.6931472	0.4054651	0.4054651	0.0000000	1.0986123
##	[157]	0.6931472	0.6931472	0.6931472	0.4054651	0.4054651	0.6931472
##	[163]	1.6094379	0.0000000	0.6931472	0.6931472	0.9162907	1.6094379
##	[169]	0.4054651	0.0000000	0.0000000	0.4054651	0.4054651	1.0986123
##	[175]	0.0000000	0.6931472	0.0000000	1.0986123	0.0000000	0.6931472
##	[181]	1.6094379	0.6931472	0.0000000	0.4054651	0.0000000	0.0000000
##	[187]	0.0000000	0.0000000	0.4054651	0.0000000	0.6931472	0.4054651
##	[193]	0.0000000	0.0000000	0.6931472	0.6931472	0.6931472	0.6931472
##	[199]	1.6094379	0.6931472	1.7917595	0.4054651	0.6931472	0.0000000
##	[205]	0.0000000	1.0986123	1.3862944	0.0000000	-0.6931472	0.0000000
##	[211]	0.4054651	0.4054651	0.0000000	0.0000000	0.0000000	0.0000000
##	[217]	1.0986123	1.3862944	0.4054651	0.4054651	-0.6931472	-0.6931472
##	[223]	1.0986123	0.0000000	0.9162907	0.6931472	0.4054651	0.0000000
##	[229]	0.4054651	0.0000000	0.0000000	0.6931472	0.0000000	0.0000000
##	[235]	0.4054651	0.0000000	0.4054651	0.6931472	0.4054651	0.0000000
##	[241]	0.0000000	0.0000000	0.6931472	0.4054651	0.0000000	0.0000000
##	[247]	0.0000000	0.0000000	0.0000000	0.4054651	0.0000000	0.6931472
##	[253]	0.4054651	0.4054651	0.0000000	0.0000000	0.4054651	0.0000000
##	[259]	0.0000000	0.6931472	0.0000000	0.6931472	0.0000000	0.6931472
##	[265]	0.0000000	0.0000000	0.6931472	0.0000000	0.6931472	0.0000000
##	[271]	0.0000000	0.0000000	0.6931472	0.6931472	1.0986123	0.0000000
##	[277]	0.0000000	0.6931472	1.0986123	0.0000000	0.6931472	0.6931472
##	[283]	0.4054651	0.0000000	0.4054651	0.4054651	1.0986123	0.0000000
##	[289]	0.6931472	0.0000000	0.4054651	0.0000000	0.0000000	0.4054651
##	[295]	0.0000000	0.4054651	0.0000000	0.0000000	0.4054651	0.9162907
##	[301]	0.0000000	0.0000000	1.0986123	0.6931472	0.6931472	0.0000000
##	[307]	0.4054651	0.6931472	0.6931472	1.3862944	1.0986123	0.6931472
##	[313]	0.6931472	0.0000000	0.4054651	0.6931472	0.6931472	1.0986123
##	[319]	0.6931472	0.6931472	1.0986123	0.6931472	0.6931472	0.6931472

```
## [325] 0.6931472
```

```
b<-Places_visit$time.needed.to.visit.in.hrs-mean(Places_visit$time.needed.to.visit.in.hrs)/sd(Places_visit$time.needed.to.visit.in.hrs)
View(b)
```

5)plotting the one quantitative variables

```
hist(Places_visit$time.needed.to.visit.in.hrs,main="HISTOGRAM OF time.needed.to.visit.in.hrs",col = "orange")
```



```
# plotting the scatter plot
```

```
plot(Places_visit$time.needed.to.visit.in.hrs, Places_visit$Entrance.Fee.in.INR,
     main = "Scatterplot of Entrance.Fee.in.INR vs. time.needed.to.visit.in.hrs",
     xlab = "Entrance.Fee.in.INR", ylab = "time.needed.to.visit.in.hrs")
```

Scatterplot of Entrance.Fee.in.INR vs. time.needed.to.visit.in.hrs

