In [12]:

```
# This R environment comes with many helpful analytics packages installed
# It is defined by the kaggle/rstats Docker image: https://github.com/kaggle/docker-rstat
s
# For example, here's a helpful package to load

library(tidyverse) # metapackage of all tidyverse packages

# Input data files are available in the read-only "../input/" directory
# For example, running this (by clicking run or pressing Shift+Enter) will list all files
under the input directory

list.files(path = "../input")

# You can write up to 5GB to the current directory (/kaggle/working/) that gets preserved
as output when you create a version using "Save & Run All"
# You can also write temporary files to /kaggle/temp/, but they won't be saved outside of
the current session
```

'AB_NYC_2019.csv'

In [13]:

```
airbnb <- read.csv("../input/AB_NYC_2019.csv")
summary(airbnb)
```

```
       id                                             name
 Min.   :    2539   Hillside Hotel                    :   18
 1st Qu.: 9471945   Home away from home               :   17
 Median :19677284                                     :   16
 Mean   :19017143   New york Multi-unit building      :   16
 3rd Qu.:29152178   Brooklyn Apartment                :   12
 Max.   :36487245   Loft Suite @ The Box House Hotel:   11
                    (Other)                           :48805
    host_id                host_name        neighbourhood_group
 Min.   :     2438   Michael     :  417   Bronx        : 1091
 1st Qu.:  7822033   David       :  403   Brooklyn     :20104
 Median : 30793816   Sonder (NYC):  327   Manhattan    :21661
 Mean   : 67620011   John        :  294   Queens       : 5666
 3rd Qu.:107434423   Alex        :  279   Staten Island:  373
 Max.   :274321313   Blueground  :  232
                     (Other)     :46943
          neighbourhood      latitude       longitude
 Williamsburg      : 3920   Min.   :40.50   Min.   :-74.24
 Bedford-Stuyvesant: 3714   1st Qu.:40.69   1st Qu.:-73.98
 Harlem            : 2658   Median :40.72   Median :-73.96
 Bushwick          : 2465   Mean   :40.73   Mean   :-73.95
 Upper West Side   : 1971   3rd Qu.:40.76   3rd Qu.:-73.94
 Hell's Kitchen    : 1958   Max.   :40.91   Max.   :-73.71
 (Other)           :32209
          room_type         price          minimum_nights    number_of_reviews
 Entire home/apt:25409   Min.   :    0.0   Min.   :   1.00   Min.   :  0.00
 Private room   :22326   1st Qu.:   69.0   1st Qu.:   1.00   1st Qu.:  1.00
 Shared room    : 1160   Median :  106.0   Median :   3.00   Median :  5.00
                         Mean   :  152.7   Mean   :   7.03   Mean   : 23.27
                         3rd Qu.:  175.0   3rd Qu.:   5.00   3rd Qu.: 24.00
                         Max.   :10000.0   Max.   :1250.00   Max.   :629.00

    last_review    reviews_per_month calculated_host_listings_count
          :10052   Min.   : 0.010    Min.   :  1.000
 2019-06-23: 1413   1st Qu.: 0.190    1st Qu.:  1.000
 2019-07-01: 1359   Median : 0.720    Median :  1.000
 2019-06-30: 1341   Mean   : 1.373    Mean   :  7.144
 2019-06-24:  875   3rd Qu.: 2.020    3rd Qu.:  2.000
 2019-07-07:  718   Max.   :58.500    Max.   :327.000
 (Other)   :33137   NA's   :10052
availability_365
 Min.   :  0.0
```

```
 1st Qu.:  0.0
 Median : 45.0
 Mean   :112.8
 3rd Qu.:227.0
 Max.   :365.0
```

In [14]:

```
head(airbnb)
```

A data.frame: 6 × 16

	id <int>	name <fct>	host_id <int>	host_name <fct>	neighbourhood_group <fct>	neighbourhood <fct>	latitude <dbl>	longitude <dbl>	room_type <fct>	price <int>
1	2539	Clean & quiet apt home by the park	2787	John	Brooklyn	Kensington	40.64749	-73.97237	Private room	149
2	2595	Skylit Midtown Castle	2845	Jennifer	Manhattan	Midtown	40.75362	-73.98377	Entire home/apt	225
3	3647	THE VILLAGE OF HARLEM....NEW YORK !	4632	Elisabeth	Manhattan	Harlem	40.80902	-73.94190	Private room	150
4	3831	Cozy Entire Floor of Brownstone	4869	LisaRoxanne	Brooklyn	Clinton Hill	40.68514	-73.95976	Entire home/apt	89
5	5022	Entire Apt: Spacious Studio/Loft by central park	7192	Laura	Manhattan	East Harlem	40.79851	-73.94399	Entire home/apt	80
6	5099	Large Cozy 1 BR Apartment In Midtown East	7322	Chris	Manhattan	Murray Hill	40.74767	-73.97500	Entire home/apt	200

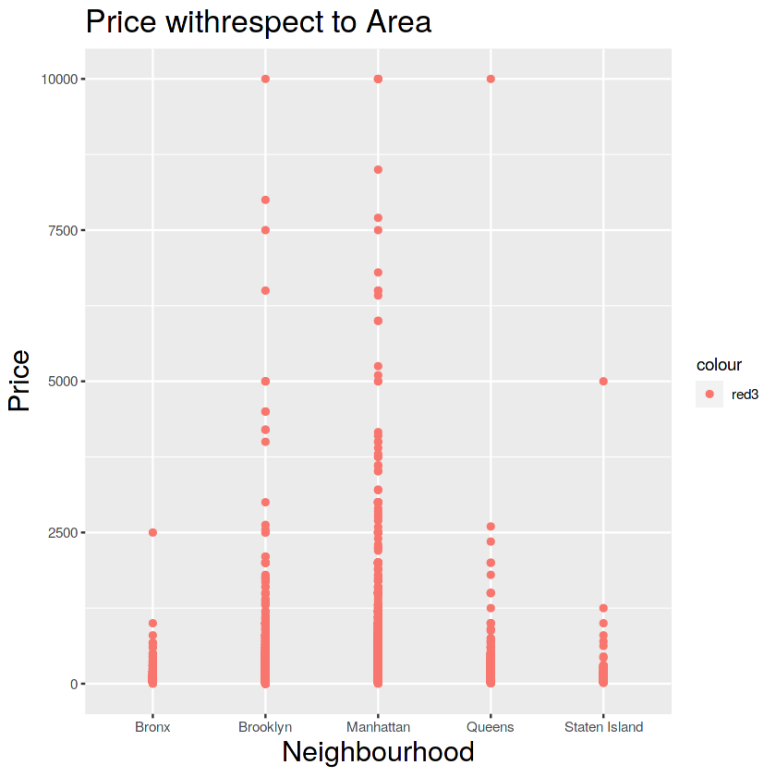
In [34]:

```
library(ggplot2)
ggplot(airbnb, aes(x= room_type, y = price/1000, col = "red3"))+ geom_col()+ ggtitle("Pr
ice with respect to Room Price")+ xlab('Room Type') + ylab('Price') + theme(plot.title =
element_text(size = 18), axis.title.x = element_text(size = 16), axis.title.y = element_
text(size = 16))+ scale_y_continuous(labels = scales::dollar)
```

Room Type

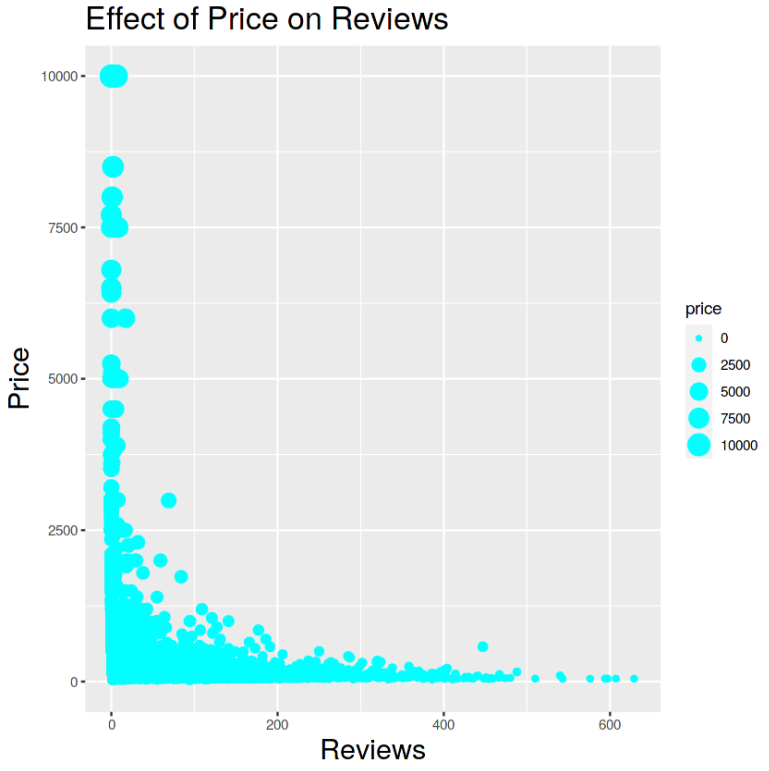
In [16]:

```
ggplot(airbnb, aes(x = neighbourhood_group ,y = price,  col = "red3"))+ geom_point() + g
gtitle("Price withrespect to Area")+ xlab("Neighbourhood")+ ylab("Price") + theme(plot.t
itle = element_text(size = 20), axis.title.x = element_text(size = 18), axis.title.y = el
ement_text(size = 18))
```



In [35]:

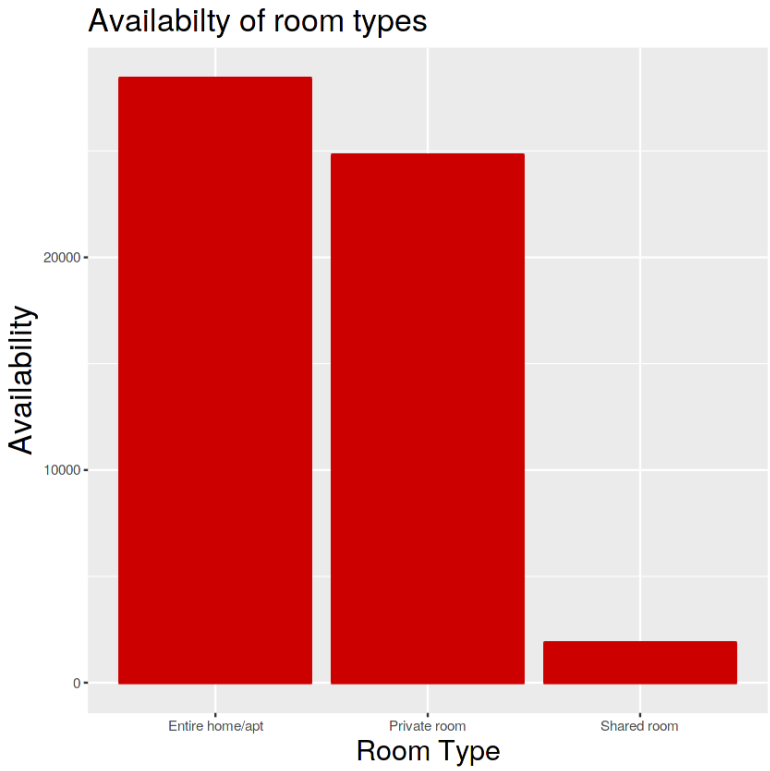
```
ggplot(airbnb, aes(x =  number_of_reviews, y = price)) + geom_point(color = "cyan", aes(
size = price)) + ggtitle("Effect of Price on Reviews") + xlab("Reviews") + ylab("Price")
+ theme (plot.title = element_text(size = 20), axis.title.x = element_text(size = 18), a
xis.title.y = element_text(size = 18))
```



In [47]:

```
ggplot(airbnb, aes(x = room_type, y = availability_365/100)) + geom_col(col = "red3")  +
```

```
ggtitle("Availabilty of room types") + xlab("Room Type") + ylab("Availability") + theme(
plot.title = element_text(size = 20), axis.title.x = element_text(size = 18), axis.title
.y = element_text(size = 20)) + scale_y_continuous()
```



In [ ]: