assignment_2_Ramzi

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2023-01-26

```
#summary(calendar)
summary(listings)
```

```
##        id            listing_url          scrape_id          last_scraped
##  Min.   :5.396e+03   Length:55104      Min.   :2.022e+13   Length:55104
##  1st Qu.:1.487e+07   Class :character   1st Qu.:2.022e+13   Class :character
##  Median :3.493e+07   Mode  :character   Median :2.022e+13   Mode  :character
##  Mean   :1.598e+17                      Mean   :2.022e+13
##  3rd Qu.:5.360e+07                      3rd Qu.:2.022e+13
##  Max.   :7.782e+17                      Max.   :2.022e+13
##
##     source              name            description       neighborhood_overview
##  Length:55104       Length:55104       Length:55104       Length:55104
##  Class :character   Class :character   Class :character   Class :character
##  Mode  :character   Mode  :character   Mode  :character   Mode  :character
##
##
##
##
##  picture_url           host_id            host_url           host_name
##  Length:55104       Min.   :      275   Length:55104       Length:55104
##  Class :character   1st Qu.: 14965994   Class :character   Class :character
##  Mode  :character   Median : 47530710   Mode  :character   Mode  :character
##                     Mean   :123641991
##                     3rd Qu.:197724296
##                     Max.   :490814878
##
##   host_since          host_location       host_about         host_response_time
##  Length:55104       Length:55104       Length:55104       Length:55104
##  Class :character   Class :character   Class :character   Class :character
##  Mode  :character   Mode  :character   Mode  :character   Mode  :character
##
##
##
##
##  host_response_rate host_acceptance_rate host_is_superhost   host_thumbnail_url
##  Length:55104       Length:55104         Length:55104       Length:55104
##  Class :character   Class :character     Class :character   Class :character
##  Mode  :character   Mode  :character     Mode  :character   Mode  :character
##
##
##
##
```

```
##  host_picture_url    host_neighbourhood host_listings_count
##  Length:55104       Length:55104        Min.   :   1.00
##  Class :character    Class :character    1st Qu.:   1.00
##  Mode  :character    Mode  :character    Median :   1.00
##                                          Mean   :  18.26
##                                          3rd Qu.:   3.00
##                                          Max.   :1852.00
##                                          NA's   :21
##  host_total_listings_count host_verifications host_has_profile_pic
##  Min.   :   1.00           Length:55104       Length:55104
##  1st Qu.:   1.00           Class :character   Class :character
##  Median :   2.00           Mode  :character   Mode  :character
##  Mean   :  28.85
##  3rd Qu.:   4.00
##  Max.   :2873.00
##  NA's   :21
##  host_identity_verified neighbourhood      neighbourhood_cleansed
##  Length:55104           Length:55104       Length:55104
##  Class :character       Class :character   Class :character
##  Mode  :character       Mode  :character   Mode  :character
##
##
##
##
##  neighbourhood_group_cleansed    latitude        longitude
##  Mode:logical                 Min.   :48.82   Min.   :2.228
##  NA's:55104                   1st Qu.:48.85   1st Qu.:2.324
##                               Median :48.87   Median :2.348
##                               Mean   :48.86   Mean   :2.345
##                               3rd Qu.:48.88   3rd Qu.:2.369
##                               Max.   :48.90   Max.   :2.467
##
##  property_type       room_type          accommodates    bathrooms
##  Length:55104       Length:55104        Min.   : 0.000  Mode:logical
##  Class :character    Class :character    1st Qu.: 2.000  NA's:55104
##  Mode  :character    Mode  :character    Median : 2.000
##                                          Mean   : 3.045
##                                          3rd Qu.: 4.000
##                                          Max.   :16.000
##
##  bathrooms_text       bedrooms          beds           amenities
##  Length:55104       Min.   : 1.000   Min.   : 1.000   Length:55104
##  Class :character    1st Qu.: 1.000   1st Qu.: 1.000   Class :character
##  Mode  :character    Median : 1.000   Median : 1.000   Mode  :character
##                      Mean   : 1.365   Mean   : 1.713
##                      3rd Qu.: 2.000   3rd Qu.: 2.000
##                      Max.   :50.000   Max.   :90.000
##                      NA's   :9016     NA's   :769
##     price          minimum_nights   maximum_nights    minimum_minimum_nights
##  Length:55104      Min.   :  1.00   Min.   :      1   Min.   :   1.00
##  Class :character   1st Qu.:  2.00   1st Qu.:     90   1st Qu.:   2.00
##  Mode  :character   Median :  3.00   Median :   1125   Median :   3.00
##                     Mean   : 84.83   Mean   :    865   Mean   :  84.08
##                     3rd Qu.: 30.00   3rd Qu.:   1125   3rd Qu.:  30.00
```

```
##                        Max.   :1000.00   Max.   :10000000   Max.   :1000.00
##                                                             NA's   :9
## maximum_minimum_nights minimum_maximum_nights maximum_maximum_nights
## Min.   :   1.00        Min.   :       1       Min.   :1.000e+00
## 1st Qu.:   2.00        1st Qu.:     100       1st Qu.:3.650e+02
## Median :   4.00        Median :    1125       Median :1.125e+03
## Mean   :  86.82        Mean   :     908       Mean   :1.179e+05
## 3rd Qu.:  30.00        3rd Qu.:    1125       3rd Qu.:1.125e+03
## Max.   :1000.00        Max.   :10000000       Max.   :2.147e+09
## NA's   :9              NA's   :9              NA's   :9
## minimum_nights_avg_ntm maximum_nights_avg_ntm calendar_updated
## Min.   :   1.0         Min.   :1.000e+00      Mode:logical
## 1st Qu.:   2.0         1st Qu.:2.710e+02      NA's:55104
## Median :   3.1         Median :1.125e+03
## Mean   :  86.3         Mean   :1.176e+05
## 3rd Qu.:  30.0         3rd Qu.:1.125e+03
## Max.   :1000.0         Max.   :2.143e+09
## NA's   :9              NA's   :9
## has_availability   availability_30  availability_60  availability_90
## Length:55104       Min.   : 0.000   Min.   : 0.00    Min.   : 0.00
## Class :character   1st Qu.: 0.000   1st Qu.: 0.00    1st Qu.: 0.00
## Mode  :character   Median : 0.000   Median : 2.00    Median : 4.00
##                    Mean   : 6.066   Mean   :14.74    Mean   :24.68
##                    3rd Qu.: 9.000   3rd Qu.:28.00    3rd Qu.:52.00
##                    Max.   :30.000   Max.   :60.00    Max.   :90.00
##
## availability_365 calendar_last_scraped number_of_reviews number_of_reviews_ltm
## Min.   :  0.0    Length:55104          Min.   :   0.0    Min.   :  0.000
## 1st Qu.:  0.0    Class :character      1st Qu.:   1.0    1st Qu.:  0.000
## Median : 17.0    Mode  :character      Median :   7.0    Median :  1.000
## Mean   :103.5                          Mean   :  24.4    Mean   :  7.295
## 3rd Qu.:199.0                          3rd Qu.:  24.0    3rd Qu.:  9.000
## Max.   :365.0                          Max.   :2402.0    Max.   :762.000
##
## number_of_reviews_l30d first_review       last_review
## Min.   : 0.0000        Length:55104       Length:55104
## 1st Qu.: 0.0000        Class :character   Class :character
## Median : 0.0000        Mode  :character   Mode  :character
## Mean   : 0.5155
## 3rd Qu.: 0.0000
## Max.   :44.0000
##
## review_scores_rating review_scores_accuracy review_scores_cleanliness
## Min.   :0.000        Min.   :0.00           Min.   :0.000
## 1st Qu.:4.500        1st Qu.:4.67           1st Qu.:4.430
## Median :4.780        Median :4.88           Median :4.740
## Mean   :4.609        Mean   :4.75           Mean   :4.588
## 3rd Qu.:5.000        3rd Qu.:5.00           3rd Qu.:4.950
## Max.   :5.000        Max.   :5.00           Max.   :5.000
## NA's   :10528        NA's   :11061          NA's   :11057
## review_scores_checkin review_scores_communication review_scores_location
## Min.   :0.000         Min.   :0.000               Min.   :0.000
## 1st Qu.:4.750         1st Qu.:4.750               1st Qu.:4.750
## Median :4.920         Median :4.940               Median :4.910
```

```
##   Mean   :4.787          Mean   :4.797              Mean   :4.803
##   3rd Qu.:5.000          3rd Qu.:5.000              3rd Qu.:5.000
##   Max.   :5.000          Max.   :5.000              Max.   :5.000
##   NA's   :11070          NA's   :11060              NA's   :11072
##   review_scores_value   license           instant_bookable
##   Min.   :0.000     Length:55104       Length:55104
##   1st Qu.:4.500     Class :character   Class :character
##   Median :4.710     Mode  :character   Mode  :character
##   Mean   :4.598
##   3rd Qu.:4.880
##   Max.   :5.000
##   NA's   :11074
##   calculated_host_listings_count calculated_host_listings_count_entire_homes
##   Min.   :  1.00                 Min.   :  0.00
##   1st Qu.:  1.00                 1st Qu.:  1.00
##   Median :  1.00                 Median :  1.00
##   Mean   : 12.54                 Mean   : 11.92
##   3rd Qu.:  2.00                 3rd Qu.:  1.00
##   Max.   :358.00                 Max.   :358.00
##
##   calculated_host_listings_count_private_rooms
##   Min.   : 0.0000
##   1st Qu.: 0.0000
##   Median : 0.0000
##   Mean   : 0.4461
##   3rd Qu.: 0.0000
##   Max.   :39.0000
##
##   calculated_host_listings_count_shared_rooms reviews_per_month
##   Min.   : 0.00000                            Min.   : 0.010
##   1st Qu.: 0.00000                            1st Qu.: 0.160
##   Median : 0.00000                            Median : 0.540
##   Mean   : 0.01648                            Mean   : 1.054
##   3rd Qu.: 0.00000                            3rd Qu.: 1.410
##   Max.   :10.00000                            Max.   :50.220
##                                               NA's   :10528
```

```r
summary(reviews)
```

```
##    listing_id            id              date           reviewer_id
##   Min.   :5.396e+03  Min.   :4.824e+03  Length:1344661    Min.   :        81
##   1st Qu.:6.909e+06  1st Qu.:2.508e+08  Class :character  1st Qu.: 24225882
##   Median :1.915e+07  Median :5.571e+08  Mode  :character  Median : 69504881
##   Mean   :3.871e+16  Mean   :2.377e+17                    Mean   :117437538
##   3rd Qu.:3.590e+07  3rd Qu.:5.832e+17                    3rd Qu.:173543262
##   Max.   :7.750e+17  Max.   :7.796e+17                    Max.   :490300043
##   reviewer_name        comments
##   Length:1344661     Length:1344661
##   Class :character   Class :character
##   Mode  :character   Mode  :character
##
##
##
```