**#Setting home directory**

**setwd("~/Data Analytics/workingdirectory/hotel")**

**#Uploading the CSV**

**hotel.df <- read.csv(paste("Cities42.csv",sep = ""))**

**#Viewing the dataframe**

**View(hotel.df)**

**#Finding mean, variance and standard deviation of all features in dataframe**

**summary(hotel.df)**

X CityName Population CityRank IsMetroCity

Min. : 1 Delhi :2048 Min. : 8096 Min. : 0.00 Min. :0.0000

1st Qu.: 3309 Jaipur : 768 1st Qu.: 744983 1st Qu.: 2.00 1st Qu.:0.0000

Median : 6616 Mumbai : 712 Median : 3046163 Median : 9.00 Median :0.0000

Mean : 6616 Bangalore: 656 Mean : 4416837 Mean :14.83 Mean :0.2842

3rd Qu.: 9924 Goa : 624 3rd Qu.: 8443675 3rd Qu.:24.00 3rd Qu.:1.0000

Max. :13232 Kochi : 608 Max. :12442373 Max. :44.00 Max. :1.0000

(Other) :7816

IsTouristDestination IsWeekend IsNewYearEve Date

Min. :0.0000 Min. :0.0000 Min. :0.0000 Dec 21 2016:1611

1st Qu.:0.0000 1st Qu.:0.0000 1st Qu.:0.0000 Dec 24 2016:1611

Median :1.0000 Median :1.0000 Median :0.0000 Dec 25 2016:1611

Mean :0.6972 Mean :0.6228 Mean :0.1244 Dec 28 2016:1611

3rd Qu.:1.0000 3rd Qu.:1.0000 3rd Qu.:0.0000 Dec 31 2016:1611

Max. :1.0000 Max. :1.0000 Max. :1.0000 Dec 18 2016:1608

(Other) :3569

HotelName RoomRent StarRating Airport

Vivanta by Taj : 32 Min. : 299 Min. :0.000 Min. : 0.20

Goldfinch Hotel : 24 1st Qu.: 2436 1st Qu.:3.000 1st Qu.: 8.40

OYO Rooms : 24 Median : 4000 Median :3.000 Median : 15.00

The Gordon House Hotel: 24 Mean : 5474 Mean :3.459 Mean : 21.16

Apnayt Villa : 16 3rd Qu.: 6299 3rd Qu.:4.000 3rd Qu.: 24.00

Bentleys Hotel Colaba : 16 Max. :322500 Max. :5.000 Max. :124.00

(Other) :13096

HotelAddress

The Mall, Shimla : 32

#2-91/14/8, White Fields, Kondapur, Hitech City, Hyderabad, 500084 India: 16

121, City Terrace, Walchand Hirachand Marg, Mumbai, Maharashtra : 16

14-4507/9, Balmatta Road, Near Jyothi Circle, Hampankatta : 16

144/7, Rajiv Gandi Salai (OMR), Kottivakkam, Chennai, Tamil Nadu : 16

17, Oliver Road, Colaba, Mumbai, Maharashtra : 16

(Other) :13120

HotelPincode HotelDescription FreeWifi FreeBreakfast

Min. : 100025 3 : 120 Min. :0.0000 Min. :0.0000

1st Qu.: 221001 Abc : 112 1st Qu.:1.0000 1st Qu.:0.0000

Median : 395003 3-star hotel: 104 Median :1.0000 Median :1.0000

Mean : 397430 3.5 : 88 Mean :0.9259 Mean :0.6491

3rd Qu.: 570001 4 : 72 3rd Qu.:1.0000 3rd Qu.:1.0000

Max. :7000157 (Other) :12728 Max. :1.0000 Max. :1.0000

NA's : 8

HotelCapacity HasSwimmingPool

**library(psych)**

**library(car)**

**#Run regression test RoomRent vs Others**

**fithotel <- lm(hotel.df$RoomRent~hotel.df$X+hotel.df$CityName+hotel.df$Population+hotel.df$CityRank+hotel.df$IsMetroCity+hotel.df$IsTouristDestination+hotel.df$IsWeekend+hotel.df$IsNewYearEve+hotel.df$Date)**

**fithotel2 <- lm(hotel.df$RoomRent~hotel.df$StarRating+hotel.df$Airport+hotel.df$HotelPincode+hotel.df$FreeWifi+hotel.df$FreeBreakfast+hotel.df$HotelCapacity+hotel.df$HasSwimmingPool)**

**fithotel3 <- lm(hotel.df$RoomRent~hotel.df$HotelName)**

**coef(fithotel)**

(Intercept) hotel.df$X

-28238.366444 4.004040

hotel.df$CityNameAhmedabad hotel.df$CityNameAmritsar

11926.388026 1401.041147

hotel.df$CityNameBangalore hotel.df$CityNameBhubaneswar

18486.099030 -12745.167643

hotel.df$CityNameChandigarh hotel.df$CityNameChennai

-8581.650389 16257.790017

hotel.df$CityNameDarjeeling hotel.df$CityNameDelhi

-18099.131326 24626.401314

hotel.df$CityNameGangtok hotel.df$CityNameGoa

-20010.796606 1281.592006

hotel.df$CityNameGuwahati hotel.df$CityNameHaridwar

-9158.523867 -17262.621021

hotel.df$CityNameHyderabad hotel.df$CityNameIndore

13599.558354 8.888725

hotel.df$CityNameJaipur hotel.df$CityNameJaisalmer

8168.302767 -20186.051025

hotel.df$CityNameJodhpur hotel.df$CityNameKanpur

-59.970303 702.099117

hotel.df$CityNameKochi hotel.df$CityNameKolkata

-10519.302827 10640.964640

hotel.df$CityNameLucknow hotel.df$CityNameMadurai

3941.196049 -94.000343

hotel.df$CityNameManali hotel.df$CityNameMangalore

-24713.533526 -15428.757105

hotel.df$CityNameMumbai hotel.df$CityNameMunnar

32279.795872 -20693.905607

hotel.df$CityNameMysore hotel.df$CityNameNainital

-11603.832401 -20781.450506

hotel.df$CityNameOoty hotel.df$CityNamePanchkula

-19125.889310 -20909.995627

hotel.df$CityNamePune hotel.df$CityNamePuri

6923.840264 -15838.206838

hotel.df$CityNameRajkot hotel.df$CityNameRishikesh

-5057.769008 -19100.972890

hotel.df$CityNameShimla hotel.df$CityNameSrinagar

-16485.180432 480.385781

hotel.df$CityNameSurat hotel.df$CityNameThiruvanthipuram

8170.595258 -6823.731454

hotel.df$CityNameThrissur hotel.df$CityNameUdaipur

2648.843070 -9801.372922

hotel.df$CityNameVaranasi hotel.df$Population

-706.815136 NA

hotel.df$CityRank hotel.df$IsMetroCity

101.168353 -77.223718

hotel.df$IsTouristDestination hotel.df$IsWeekend

-668.950503 700.491440

hotel.df$IsNewYearEve hotel.df$Date21-Dec-16

1970.882111 767.237400

hotel.df$Date24-Dec-16 hotel.df$Date25-Dec-16

141.724977 -19.661570

hotel.df$Date28-Dec-16 hotel.df$Date31-Dec-16

771.547318 -1772.091431

hotel.df$Date4-Jan-16 hotel.df$Date4-Jan-17

2045.804206 1164.452381

hotel.df$Date8-Jan-16 hotel.df$Date8-Jan-17

1510.179694 473.418440

hotel.df$DateDec 18 2016 hotel.df$DateDec 21 2016

352.934456 1220.050149

hotel.df$DateDec 24 2016 hotel.df$DateDec 25 2016

1006.987644 926.173589

hotel.df$DateDec 28 2016 hotel.df$DateDec 31 2016

1726.024926 -291.128290

hotel.df$DateJan 04 2017 hotel.df$DateJan 08 2017

1776.051552 776.378587

hotel.df$DateJan 4 2017 hotel.df$DateJan 8 2017

2030.138547 1213.966277

**coef(fithotel2)**

(Intercept) hotel.df$StarRating hotel.df$Airport

-7.309666e+03 3.515124e+03 2.671875e+01

hotel.df$HotelPincode hotel.df$FreeWifi hotel.df$FreeBreakfast

-4.138913e-04 2.313820e+02 -5.490377e+01

hotel.df$HotelCapacity hotel.df$HasSwimmingPool

-1.483226e+01 2.734194e+03

**coef(fithotel3)**

4588.7500

hotel.df$HotelNameHotel Moments

-444.0000

hotel.df$HotelNameHotel Moti Mahal

2566.2500

hotel.df$HotelNameHotel Namaskar Residency

665.0000

hotel.df$HotelNameHotel Nami Residency

1489.2500

hotel.df$HotelNameHotel Naren Palace

681.2500

hotel.df$HotelNameHotel Narula's Aurrum

189.0000

hotel.df$HotelNameHotel New Leaf

1515.0000

hotel.df$HotelNameHotel New Rockbay

985.7500

hotel.df$HotelNameHotel North Avenue

1375.0000

hotel.df$HotelNameHotel O'Delhi

-447.5000

hotel.df$HotelNameHotel Orchard Pune

-256.7500

hotel.df$HotelNameHotel Orritel West

3890.0000

hotel.df$HotelNameHotel Pace

-560.0000

hotel.df$HotelNameHotel Padmini Palace

1870.5000

hotel.df$HotelNameHotel Paradise

-335.0000

hotel.df$HotelNameHotel Platinum Inn

1146.2500

hotel.df$HotelNameHotel Poonam Haveli

1652.5000

hotel.df$HotelNameHotel Pratap Plaza

-172.5000

hotel.df$HotelNameHotel Premier Comforts

612.8750

hotel.df$HotelNameHotel Presidency

215.0000

hotel.df$HotelNameHotel Pushpak

-172.5000

hotel.df$HotelNameHotel Rajshree, Chandigarh

1013.8750

hotel.df$HotelNameHotel Rama Deluxe

-969.8750

hotel.df$HotelNameHotel Rang Mahal

8465.1250

hotel.df$HotelNameHotel Rawal Kot

6247.7500

hotel.df$HotelNameHotel Red Castle

-670.7500

hotel.df$HotelNameHotel Regal Enclave

5387.0000

hotel.df$HotelNameHotel Ritz Inn

1665.0000

hotel.df$HotelNameHotel Rockland

-45.0000

hotel.df$HotelNameHotel Rooms

-1114.7500

hotel.df$HotelNameHotel Royal Executive

-547.7500

hotel.df$HotelNameHotel Royal Haveli

1226.6250

hotel.df$HotelNameHotel Royal Park

41.0000

hotel.df$HotelNameHotel Royal Pratap Niwas

6761.8750

hotel.df$HotelNameHotel Royale Residency

533.1250

hotel.df$HotelNameHotel Sagar Plaza

1264.0000

hotel.df$HotelNameHotel Sai Palace Grand Malad

2956.6875

hotel.df$HotelNameHotel Salute

-298.5000

hotel.df$HotelNameHotel Sapphire

491.0000

hotel.df$HotelNameHotel Sarang Palace

-72.5000

hotel.df$HotelNameHotel Sarovar

2264.0000

hotel.df$HotelNameHotel Satkar

-1303.1250

hotel.df$HotelNameHotel Savi Residency

-648.5000

hotel.df$HotelNameHotel Seven Hills Tower

1695.3750

hotel.df$HotelNameHotel Seven Seas Inn

-773.5000

hotel.df$HotelNameHotel Sewa Grand Faridabad

-261.8750

hotel.df$HotelNameHotel Shimla Inn

-1079.0000

hotel.df$HotelNameHotel Shree Panchratna

1665.0000

hotel.df$HotelNameHotel Shri Vinayak

-897.2500

hotel.df$HotelNameHotel Shubhangan

1761.2500

hotel.df$HotelNameHotel Sifat International

752.5000

hotel.df$HotelNameHotel Silver Cloud Ahmedabad

1515.0000

hotel.df$HotelNameHotel Sita International

-960.2500

hotel.df$HotelNameHotel Sky Plaza

1865.0000

hotel.df$HotelNameHotel Snowcrest Manor

115.3750

hotel.df$HotelNameHotel Sohi Residency

1059.0000

hotel.df$HotelNameHotel Southern

-447.5000

hotel.df$HotelNameHotel Springfields

3902.5000

hotel.df$HotelNameHotel Sri Nanak Continental

-132.5000

hotel.df$HotelNameHotel Star

-49.6250

hotel.df$HotelNameHotel Star Plaza

-571.0000

hotel.df$HotelNameHotel Staywell DX

-876.0000

hotel.df$HotelNameHotel Studio Estique

2990.0000

hotel.df$HotelNameHotel Su Shree Continental

-813.5000

hotel.df$HotelNameHotel Suba Palace

4816.2500

hotel.df$HotelNameHotel Suba Star

1117.3750

hotel.df$HotelNameHotel Sudesh Tower

1540.0000

hotel.df$HotelNameHotel Suhim Portico

2064.7500

hotel.df$HotelNameHotel Summit

715.0000

hotel.df$HotelNameHotel Suncity Apollo

2952.5000

hotel.df$HotelNameHotel Suncity Premiere

1742.2500

hotel.df$HotelNameHotel Sunstar Grand

444.5000

hotel.df$HotelNameHotel Sunstar Residency

-136.5000

hotel.df$HotelNameHotel Supreme

3140.3750

hotel.df$HotelNameHotel Surya

2165.0000

hotel.df$HotelNameHotel Swan Inn

135.0000

hotel.df$HotelNameHotel Swaran Palace

1440.0000

hotel.df$HotelNameHotel T.A.P.Goldcrest

-1464.5000

hotel.df$HotelNameHotel Taj Heights

-163.7500

hotel.df$HotelNameHotel Taj Plaza

-416.0000

hotel.df$HotelNameHotel Taj Prince

-748.0000

hotel.df$HotelNameHotel Taj Resorts

1189.0000

hotel.df$HotelNameHotel Tara Palace, Chandni Chowk

-254.7500

hotel.df$HotelNameHotel The Royal Plaza

3265.0000

hotel.df$HotelNameHotel Thirty Three

1137.3750

hotel.df$HotelNameHotel Tokyo Palace

-435.0000

hotel.df$HotelNameHotel Transit

527.5000

hotel.df$HotelNameHotel Trimoorti

-65.3750

hotel.df$HotelNameHotel Turquoise, Chandigarh

3895.1250

hotel.df$HotelNameHotel Uppal International

-36.5000

hotel.df$HotelNameHotel V Inn Bani Park

-52.5000

hotel.df$HotelNameHotel Vaibhav Harsh

865.0000

hotel.df$HotelNameHotel Vaishnaoi

689.8750

hotel.df$HotelNameHotel Varuna

-95.0000

hotel.df$HotelNameHotel Vedas Heritage

155.5000

hotel.df$HotelNameHotel Vice President

401.7500

hotel.df$HotelNameHotel Victoria

428.3125

hotel.df$HotelNameHotel Vikram

3727.5000

hotel.df$HotelNameHotel Vimal Heritage

352.5000

hotel.df$HotelNameHotel Vishnupriya

1743.5000

hotel.df$HotelNameHotel Vista Inn

-675.7500

hotel.df$HotelNameHotel Volga

-485.0000

hotel.df$HotelNameHotel Willow Banks

5757.5000

hotel.df$HotelNameHotel Yog Vashishth

365.0000

hotel.df$HotelNameHoward Johnson Bengaluru Hebbal

5282.5000

hotel.df$HotelNameHoward Plaza The Fern

2764.0000

hotel.df$HotelNameHyatt Ahmedabad

3016.7500

hotel.df$HotelNameHyatt Amritsar

4258.7500

hotel.df$HotelNameHyatt Place Gurgaon

3715.0000

hotel.df$HotelNameHyatt Place Pune/Hinjawadi

2588.7500

hotel.df$HotelNameHyatt Pune

2665.0000

hotel.df$HotelNameHyatt Regency

4290.0000

hotel.df$HotelNameHyatt Regency Ahmedabad

3390.0000

hotel.df$HotelNameHyatt Regency Delhi

6327.5000

hotel.df$HotelNameHyatt Regency Gurgaon

4065.0000

hotel.df$HotelNameHyatt Regency Kolkata

7733.7500

hotel.df$HotelNameHyatt Regency Pune

3952.5000

hotel.df$HotelNameHyatt Regency, Chandigarh

7202.5000

hotel.df$HotelNameHycinth by Sparsa

3476.5000

hotel.df$HotelNameHyderabad Marriott Hotel & Convention Centre

4288.8750

hotel.df$HotelNameITC Rajputana- Jaipur

3426.5000

hotel.df$HotelNameIbis Jaipur Hotel

1256.0000

hotel.df$HotelNameIdeal Ayurvedic Resort

-335.0000

hotel.df$HotelNameIdeal Beach Resort

8265.0000

hotel.df$HotelNameImperial Regency

948.0000

hotel.df$HotelNameIndana Palace Jodhpur

13058.6250

hotel.df$HotelNameIssacs Residency

2000.2500

hotel.df$HotelNameJP HOTEL & RESORTS

1026.5000

hotel.df$HotelNameJW Mariott Hotel

8077.5000

hotel.df$HotelNameJW Marriott Hotel

4930.2500

hotel.df$HotelNameJW Marriott Hotel Kolkata

8952.5000

hotel.df$HotelNameJW Marriott Hotel New Delhi Aerocity

6540.0000

hotel.df$HotelNameJW Marriott Hotel, Chandigarh

7265.0000

hotel.df$HotelNameJagat Niwas Palace

3246.2500

hotel.df$HotelNameJagrati Lords Inn

1837.5000

hotel.df$HotelNameJai Mahal Palace

19077.5000

hotel.df$HotelNameJaipur Inn

-772.5000

hotel.df$HotelNameJaipur Marriott Hotel

6481.6667

hotel.df$HotelNameJaisalkot

12221.0000

hotel.df$HotelNameJaisalmer Marriott Resort & Spa

13327.5000

hotel.df$HotelNameJames Plaza Limited (Formerly Park Plaza, Chandigarh)

3345.0000

hotel.df$HotelNameJameson Inn Shiraz

3058.7500

hotel.df$HotelNameJaypee Greens Golf & Spa Resort

13140.0000

hotel.df$HotelNameJaypee Palace Hotel

7045.3750

hotel.df$HotelNameJaypee Siddharth

4106.7500

hotel.df$HotelNameJaypee Vasant Continental

2401.6250

hotel.df$HotelNameJewel Of The East

1410.0000

hotel.df$HotelNameJodhana Elite

2776.2500

hotel.df$HotelNameJoecons Beach Resort

6509.3750

hotel.df$HotelNameJusta Greater Kailash

1339.1250

hotel.df$HotelNameJusta Nathdwara

1708.6250

hotel.df$HotelNameJyoti Mahal

417.5000

hotel.df$HotelNameKK Royal Hotel & Convection Center

4015.0000

hotel.df$HotelNameKP Serviced Apartments

-721.6250

hotel.df$HotelNameKTDC Mascot Hotel Thiruvananthapuram

1049.8750

hotel.df$HotelNameKachighati Valley View

1016.0000

hotel.df$HotelNameKaivalayam Retreat

3118.1250

hotel.df$HotelNameKalyan Beacon Hotel Jaisalmer

-647.5000

hotel.df$HotelNameKapithan's Inn

-1001.5000

hotel.df$HotelNameKedareswar Bed and Breakfast

90.0000

hotel.df$HotelNameKeys Hotel

1706.8750

hotel.df$HotelNameKeys Hotel Katti-Ma

782.5000

hotel.df$HotelNameKeys Hotel Kochin

1706.8750

hotel.df$HotelNameKeys Hotel Pimpri

873.2500

hotel.df$HotelNameKeys Hotel, Hosur Road

149.2500

hotel.df$HotelNameKeys Hotel, Thiruvananthapuram

718.7500

hotel.df$HotelNameKeys Prima Hotel Parc Estique

2040.0000

hotel.df$HotelNameKochi Marriott Hotel

7140.0000

hotel.df$HotelNameKoder House

9381.8750

hotel.df$HotelNameKohinoor Asiana Hotel

1815.0000

hotel.df$HotelNameKrios Hotel

708.7500

hotel.df$HotelNameKufri WhiteRidge

4636.5000

hotel.df$HotelNameLAKEZONE HOLIDAY RESORT

277.2500

hotel.df$HotelNameLa Marvella

3045.6250

hotel.df$HotelNameLa Place Sarovar Portico, Lucknow

2877.5000

hotel.df$HotelNameLa Ri Sa Resort

5636.2500

hotel.df$HotelNameLake Palace Hotel Trivandrum

2455.6250

hotel.df$HotelNameLalco Residency

4735.0000

hotel.df$HotelNameLazy Lagoon Sarovar Portico Suites

6108.7500

hotel.df$HotelNameLe ROI Udaipur

1689.6250

hotel.df$HotelNameLe Roi

3290.0000

hotel.df$HotelNameLeisure Stays

2140.0000

hotel.df$HotelNameLemon Tree Amarante Beach Resort, Goa

10985.2500

hotel.df$HotelNameLemon Tree Hotel Candolim Goa

7294.8750

hotel.df$HotelNameLemon Tree Hotel East Delhi Mall Kaushambi

1152.3750

hotel.df$HotelNameLemon Tree Hotel Gachibowli Hyderabad

1386.5714

hotel.df$HotelNameLemon Tree Hotel Tarudhan Valley

5882.8750

hotel.df$HotelNameLemon Tree Hotel, Chandigarh

2463.8750

hotel.df$HotelNameLemon Tree Hotel, Udyog Vihar, Gurgaon

1468.8750

hotel.df$HotelNameLemon Tree Premier

2520.6250

hotel.df$HotelNameLemon Tree Premier City Center Gurgaon

2475.2500

hotel.df$HotelNameLemon Tree Premier The Atrium, Ahmedabad

1598.0000

hotel.df$HotelNameLemon Tree Premier, HITEC City, Hyderabad

2541.0000

hotel.df$HotelNameLemon Tree Premier, Jaipur

3931.7500

hotel.df$HotelNameLemon Tree Premier, Leisure Valley, Gurgaon

1317.2500

hotel.df$HotelNameLeoney Resort

2821.6250

hotel.df$HotelNameLevana

3577.5000

hotel.df$HotelNameLily of Nageen

1426.3750

hotel.df$HotelNameLloyds Guest House - US Consulate

-428.7500

hotel.df$HotelNameLords Plaza

2202.3750

hotel.df$HotelNameLords Plaza, Surat

1915.0000

hotel.df$HotelNameMAYFAIR Darjeeling

8390.0000

hotel.df$HotelNameMS Residence

995.7500

hotel.df$HotelNameMadeleine Inn

-604.7500

hotel.df$HotelNameMadhu Resorts

-240.0000

hotel.df$HotelNameMadhumanthra Resort

4209.7500

hotel.df$HotelNameMahalakshmi Palace hotel

447.8750

hotel.df$HotelNameMaidens Hotel

7390.0000

hotel.df$HotelNameManali Heights

2143.3750

hotel.df$HotelNameManali White Mist A Sterling Holidays RESORT

2629.3750

hotel.df$HotelNameManaltheeram Ayurveda Beach Village

4259.5000

hotel.df$HotelNameManasarovar The Fern

1381.7500

hotel.df$HotelNameMandiram Palace

1089.0000

hotel.df$HotelNameMango Hotels

-301.0000

hotel.df$HotelNameMango Hotels Jasminn

9701.5000

hotel.df$HotelNameMango Hotels Prangan

1014.0000

hotel.df$HotelNameMango Hotels, Agra-Sikandra

451.5000

hotel.df$HotelNameMango Hotels, Bangalore-Koramangala II

-61.0000

hotel.df$HotelNameMansingh Palace

3140.0000

hotel.df$HotelNameMantra Amaltas

1746.2500

hotel.df$HotelNameManuallaya The Resort Spa in the Himalayas

6932.5000

hotel.df$HotelNameMapple Exotica

1765.0000

hotel.df$HotelNameMapple Express

815.0000

hotel.df$HotelNameMapple Hermitage Bhimtal

3632.5000

hotel.df$HotelNameMargao Residency

-435.0000

hotel.df$HotelNameMarigold by Greenpark

2374.6250

hotel.df$HotelNameMarine Palace

46.2500

hotel.df$HotelNameMarriott Suits Pune

4783.7500

hotel.df$HotelNameMaya Hotel & Restaurant

-1312.5000

hotel.df$HotelNameMayank Residency

-835.0000

hotel.df$HotelNameMayfair Hideaway Spa Resort

12891.2500

hotel.df$HotelNameMayfair Lagoon

6850.0000

hotel.df$HotelNameMayur Residency

1215.0000

hotel.df$HotelNameMercure Hyderabad KCP

2151.5000

hotel.df$HotelNameMetropole

741.0000

hotel.df$HotelNameMewargarh Udaipur by Red Lion Hotels

3820.3750

hotel.df$HotelNameMicasa By The Sea

2212.5000

hotel.df$HotelNameMihir Garh

30798.5000

hotel.df$HotelNameMinla Hotel

1872.3750

hotel.df$HotelNameMint Hotel, Chandigarh

199.1250

hotel.df$HotelNameMistletoe Munnar

2261.3750

hotel.df$HotelNameMosaic Hotels

2040.8125

hotel.df$HotelNameMount Milestone Hotel and Banquets

1015.0000

hotel.df$HotelNameMountain Trail Resort

4477.5000

hotel.df$HotelNameMovenpick Hotel & Spa Bangalore

3640.0000

hotel.df$HotelNameMunnar Tea Country Resort

7050.0000

hotel.df$HotelNameMunnar Terrace Greens A Sterling Resort

5491.1250

hotel.df$HotelNameMy Fortune

2885.0000

hotel.df$HotelNameNGH Transit Hotel

189.2500

hotel.df$HotelNameNadesar Palace

65265.0000

hotel.df$HotelNameNainital Bhawanipur Greens A Sterling Holidays Resort

4689.5000

hotel.df$HotelNameNandhana Comforts Marathahalli

-892.0000

hotel.df$HotelNameNandhana Grand

455.5000

hotel.df$HotelNameNapier House

926.5000

hotel.df$HotelNameNarayans Leela Inn

6004.7500

hotel.df$HotelNameNature Zone Jungle Resort

6259.3750

hotel.df$HotelNameNeelakurunji Luxury Plantation

7065.0000

hotel.df$HotelNameNeptune Point Hill Cottages

5021.0000

hotel.df$HotelNameNeptune point beach resort

634.6250

hotel.df$HotelNameNew Ideal Panchakarma Centre

-185.0000

hotel.df$HotelNameNiraamaya Surya Samudra

27564.8750

hotel.df$HotelNameNiraamya Surya Samudra

28090.0000

hotel.df$HotelNameNiralidhani Ethnic Resort

3002.5000

hotel.df$HotelNameNirvana Hermitage

6827.5000

hotel.df$HotelNameNirwana Hometel Jaipur - A Sarovar Hotel

2702.5000

hotel.df$HotelNameNiyati-Boutique Stay

-306.3750

hotel.df$HotelNameNo. 18 Hotel

2992.2500

hotel.df$HotelNameNoorya Hometel

101.5000

hotel.df$HotelNameNorth Center

-557.1250

hotel.df$HotelNameNovotel

4063.7500

hotel.df$HotelNameNovotel Ahmedabad

3715.0000

hotel.df$HotelNameNovotel Bengaluru Techpark

5951.7500

hotel.df$HotelNameNovotel Chennai Sipcot

2339.0000

hotel.df$HotelNameNovotel Goa Shrem

11193.8750

hotel.df$HotelNameNovotel Kolkata Hotel and Residences

3890.0000

hotel.df$HotelNameNovotel Pune Nagar Road

3197.5000

hotel.df$HotelNameO2 Hotel

1464.0000

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2253.1250

hotel.df$HotelNameOYO Apartments Baner Road

148.2500

hotel.df$HotelNameOYO Apartments Banjara Hills Road No 13A

-873.0000

hotel.df$HotelNameOYO Apartments Begumpet Old Airport Extension

-212.2857

hotel.df$HotelNameOYO Apartments DLF Phase 4

983.7500

hotel.df$HotelNameOYO Apartments Kalyani Nagar Gold Adlabs

1239.5000

hotel.df$HotelNameOYO Apartments Kharadi Bypass

2157.3750

hotel.df$HotelNameOYO Apartments Madhapur

-589.0000

hotel.df$HotelNameOYO Apartments New Town Axis Mall

1002.0000

hotel.df$HotelNameOYO Apartments Pune Nagar Road

63.3750

hotel.df$HotelNameOYO Apartments Shyamlal Begumpet

-240.0000

hotel.df$HotelNameOYO Apartments Velachery Railway Station

-508.0000

hotel.df$HotelNameOYO Premium Airforce Board Cantonment

4057.6250

hotel.df$HotelNameOYO Premium Airport City Centre 2

7237.0000

hotel.df$HotelNameOYO Premium Airport City Centre 3

1256.0000

hotel.df$HotelNameOYO Premium Airport City Centre 4

1256.0000

hotel.df$HotelNameOYO Premium Airport City Centre 5

1256.0000

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1256.0000

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2129.0000

hotel.df$HotelNameOYO Premium Airport City Centre 8

7237.0000

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7237.0000

hotel.df$HotelNameOYO Premium Airport Gate No 1

1609.2500

hotel.df$HotelNameOYO Premium Airport VIP Road

1128.3750

hotel.df$HotelNameOYO Premium Ambience Mall 2

660.0000

hotel.df$HotelNameOYO Premium Ambience Mall 3

660.0000

hotel.df$HotelNameOYO Premium Ambience Mall 4

660.0000

hotel.df$HotelNameOYO Premium Ambience Mall 5

660.0000

hotel.df$HotelNameOYO Premium Ambience Mall 6

660.0000

hotel.df$HotelNameOYO Premium Ambience Mall 7

1383.0000

hotel.df$HotelNameOYO Premium Ambience Mall 8

4789.0000

hotel.df$HotelNameOYO Premium Ambience Mall 9

4789.0000

hotel.df$HotelNameOYO Premium Anand Nagar Guwahati

2188.2500

hotel.df$HotelNameOYO Premium Apple Garden

1572.1250

hotel.df$HotelNameOYO Premium Ashram Road II

6630.1250

hotel.df$HotelNameOYO Premium Balewadi

4395.0000

hotel.df$HotelNameOYO Premium Ballygunge Lovelock Street

1385.7500

hotel.df$HotelNameOYO Premium Baner Road

2531.6250

hotel.df$HotelNameOYO Premium Bani Park

9202.0000

hotel.df$HotelNameOYO Premium Banjara Hills Road No 12

878.2500

hotel.df$HotelNameOYO Premium Begumpet

890.7500

hotel.df$HotelNameOYO Premium Behind Ambience Mall

1117.2500

hotel.df$HotelNameOYO Premium CMRI Kolkata

1029.3750

hotel.df$HotelNameOYO Premium Charbagh Lucknow

3363.0000

hotel.df$HotelNameOYO Premium Cyber Hub

220.5000

hotel.df$HotelNameOYO Premium DLF One

491.6250

hotel.df$HotelNameOYO Premium GK2

1782.5000

hotel.df$HotelNameOYO Premium Galleria Market DLF 4

937.6250

hotel.df$HotelNameOYO Premium Ganges Marine Drive

3884.7500

hotel.df$HotelNameOYO Premium Gondal Road NH27

960.1250

hotel.df$HotelNameOYO Premium Hadimba Temple

7615.0000

hotel.df$HotelNameOYO Premium Hampta View

2921.1250

hotel.df$HotelNameOYO Premium Heritage Stays Charing Cross

6788.6250

hotel.df$HotelNameOYO Premium Himalayan View

2261.5000

hotel.df$HotelNameOYO Premium Husadiya Chauraha

4206.7500

hotel.df$HotelNameOYO Premium IISc New BEL Road

873.0000

hotel.df$HotelNameOYO Premium IVY Hospital

2133.8750

hotel.df$HotelNameOYO Premium Jagatsukh Valley

5585.0000

hotel.df$HotelNameOYO Premium Jubilee Garden Jawahar Road

4965.3750

hotel.df$HotelNameOYO Premium Kakkanad Civil Station

3044.0000

hotel.df$HotelNameOYO Premium Law Garden C G Road

3992.3750

hotel.df$HotelNameOYO Premium Limda Chowk

8962.3750

hotel.df$HotelNameOYO Premium Log Huts

1479.3750

hotel.df$HotelNameOYO Premium Lucknow Railway Station

1024.3750

hotel.df$HotelNameOYO Premium Madurai Railway Junction

4264.0000

hotel.df$HotelNameOYO Premium Mall Road Near Raj Bhavan Darjeeling

6492.8750

hotel.df$HotelNameOYO Premium Malviya Nagar JLN Marg

1939.6250

hotel.df$HotelNameOYO Premium Merlin Homeland Mall

2234.7500

hotel.df$HotelNameOYO Premium Mukti Dham Rishikesh

5065.7500

hotel.df$HotelNameOYO Premium Mysore Railway Station

2538.0000

hotel.df$HotelNameOYO Premium Nainital Mall Road 2

1213.2500

hotel.df$HotelNameOYO Premium Nath Mandir South Tukoganj

2215.1250

hotel.df$HotelNameOYO Premium Nayapalli IRC Village

2993.2500

hotel.df$HotelNameOYO Premium Near Aravind Eye Hospital

1998.3750

hotel.df$HotelNameOYO Premium Near Fortis Faridabad

2411.2500

hotel.df$HotelNameOYO Premium Near Golf Course Road

39.1250

hotel.df$HotelNameOYO Premium Near Mega Mall

1861.7500

hotel.df$HotelNameOYO Premium Near Sankat Mochan Mandir

2543.3750

hotel.df$HotelNameOYO Premium Near Zoo Nainital

1918.1250

hotel.df$HotelNameOYO Premium New Friends Colony

3062.3750

hotel.df$HotelNameOYO Premium Old Station Rd Bhubaneswar 4

1290.6875

hotel.df$HotelNameOYO Premium Opposite Panchkula Bus Stand

974.0000

hotel.df$HotelNameOYO Premium Paltan Bazar

4424.2500

hotel.df$HotelNameOYO Premium Pimpri Finolex Chowk

2551.2500

hotel.df$HotelNameOYO Premium RNT Marg

2420.8750

hotel.df$HotelNameOYO Premium Railway Station

1789.2500

hotel.df$HotelNameOYO Premium Rajouri Garden Janta Market

1657.2500

hotel.df$HotelNameOYO Premium Rowland Road

2043.2500

hotel.df$HotelNameOYO Premium Saket Metro Station

6279.5000

hotel.df$HotelNameOYO Premium Salt Lake City Centre 1

256.6667

hotel.df$HotelNameOYO Premium Salt Lake City Centre 2

-285.0000

hotel.df$HotelNameOYO Premium Salt Lake City Centre 3

-285.0000

hotel.df$HotelNameOYO Premium Salt Lake City Centre 4

-285.0000

hotel.df$HotelNameOYO Premium Salt Lake City Centre 5

-285.0000

hotel.df$HotelNameOYO Premium Salt Lake City Centre 6

-285.0000

hotel.df$HotelNameOYO Premium Salt Lake City Centre 7

265.0000

hotel.df$HotelNameOYO Premium Salt Lake City Centre 8

265.0000

hotel.df$HotelNameOYO Premium Sector 22B Chandigarh

3949.0000

hotel.df$HotelNameOYO Premium Shahibaug Airport Road

7636.5000

hotel.df$HotelNameOYO Premium Simsa Resort

1484.2500

hotel.df$HotelNameOYO Premium Somajiguda

2743.3750

hotel.df$HotelNameOYO Premium Star Prini

1787.6250

hotel.df$HotelNameOYO Premium Station Road Jodhpur

3692.7500

hotel.df$HotelNameOYO Premium Tapovan 1

711.6250

hotel.df$HotelNameOYO Premium The Waves

6998.3750

hotel.df$HotelNameOYO Premium VIP Road Near KFC

2426.5000

hotel.df$HotelNameOYO Premium Vani Vihar

3193.1250

hotel.df$HotelNameOYO Premium Vazhuthacaud

4901.5000

hotel.df$HotelNameOYO Premium Vytilla Bypass

3015.6250

hotel.df$HotelNameOYO Premium World Trade Park

2820.5000

hotel.df$HotelNameOYO Room MG Road Rakabganj Agra

936.3750

hotel.df$HotelNameOYO Rooms

53.3750

hotel.df$HotelNameOYO Rooms

-605.5000

hotel.df$HotelNameOYO Rooms 100ft Road Udaipur

1391.3750

hotel.df$HotelNameOYO Rooms 80 Feet Road

835.3750

hotel.df$HotelNameOYO Rooms AM Road CSI Church

7192.2500

hotel.df$HotelNameOYO Rooms AP Sen Road Charbagh

358.7500

hotel.df$HotelNameOYO Rooms Aatish Market

-990.0000

hotel.df$HotelNameOYO Rooms Abids

-341.1250

hotel.df$HotelNameOYO Rooms Ahmedabad Station II

744.7500

hotel.df$HotelNameOYO Rooms Airport Gate No 2

3099.7500

hotel.df$HotelNameOYO Rooms Airport Gate No 2 Bus Stop

2174.7500

hotel.df$HotelNameOYO Rooms Airport Gate No 3

617.0000

hotel.df$HotelNameOYO Rooms Airport Gate No 4

617.0000

hotel.df$HotelNameOYO Rooms Airport Gate No 5

617.0000

hotel.df$HotelNameOYO Rooms Airport Gate No 6

617.0000

hotel.df$HotelNameOYO Rooms Airport Gate No 7

1330.0000

hotel.df$HotelNameOYO Rooms Airport Gate No 8

5428.0000

hotel.df$HotelNameOYO Rooms Airport Gate No 9

5428.0000

hotel.df$HotelNameOYO Rooms Airport Tonk Road

1351.0000

hotel.df$HotelNameOYO Rooms Akurdi Pune

1436.5000

hotel.df$HotelNameOYO Rooms Aleo Manali

2139.1250

hotel.df$HotelNameOYO Rooms Ashram Road II

-490.0000

hotel.df$HotelNameOYO Rooms Bada Chauraha Civil Lines

711.7500

hotel.df$HotelNameOYO Rooms Balgandharva JM Road

920.2500

hotel.df$HotelNameOYO Rooms Bani Park Shri Ram Marg

1553.5000

hotel.df$HotelNameOYO Rooms Bapuji Nagar

-463.5000

hotel.df$HotelNameOYO Rooms Beas Valley

2451.5000

hotel.df$HotelNameOYO Rooms Bendoorwell Junction

1223.5000

hotel.df$HotelNameOYO Rooms Bhuwana Bypass

4046.7500

hotel.df$HotelNameOYO Rooms Bicholi Hapsi Indore

-295.8750

hotel.df$HotelNameOYO Rooms C Road Paota

1183.1250

hotel.df$HotelNameOYO Rooms Celebration Mall

3898.3750

hotel.df$HotelNameOYO Rooms Chakraberia

1149.0000

hotel.df$HotelNameOYO Rooms Chandigarh Sector 34

785.7500

hotel.df$HotelNameOYO Rooms City Centre 1

784.1250

hotel.df$HotelNameOYO Rooms Cooch Behar Road

6860.0000

hotel.df$HotelNameOYO Rooms Cyber City Oakwood

-140.8750

hotel.df$HotelNameOYO Rooms Cyber Hub DLF

-42.5000

hotel.df$HotelNameOYO Rooms Dalhousie Waterloo Street

1270.0000

hotel.df$HotelNameOYO Rooms Darjeeling More

158.7500

hotel.df$HotelNameOYO Rooms Delhi Gate 3

761.6250

hotel.df$HotelNameOYO Rooms Delhi Maharani Bagh

1816.8750

hotel.df$HotelNameOYO Rooms Dhakkan Wala Kuan

352.0000

hotel.df$HotelNameOYO Rooms East Nada

319.0000

hotel.df$HotelNameOYO Rooms Electronic City Phase 1

-320.0000

hotel.df$HotelNameOYO Rooms Electronic City Phase 2

-320.0000

hotel.df$HotelNameOYO Rooms Electronic City Phase 3

-320.0000

hotel.df$HotelNameOYO Rooms Electronic City Phase 4

-320.0000

hotel.df$HotelNameOYO Rooms Electronic City Phase 5

-320.0000

hotel.df$HotelNameOYO Rooms Electronic City Phase 6

1915.0000

hotel.df$HotelNameOYO Rooms Electronic City Phase 7

1915.0000

hotel.df$HotelNameOYO Rooms Electronic City Phase 8

1915.0000

hotel.df$HotelNameOYO Rooms Esplanade

2707.3750

hotel.df$HotelNameOYO Rooms Faridabad

971.7500

hotel.df$HotelNameOYO Rooms Funcity Coonoor Road

796.0000

hotel.df$HotelNameOYO Rooms Gachibowli

-107.0000

hotel.df$HotelNameOYO Rooms Gachibowli-Miyapur Road

-337.8571

hotel.df$HotelNameOYO Rooms Godowlia Shivala Road

1316.8750

hotel.df$HotelNameOYO Rooms Gopalpura Flyover Tonk Road

330.0000

hotel.df$HotelNameOYO Rooms Goregaon East Station

3526.0000

hotel.df$HotelNameOYO Rooms Heritage Charbagh

1037.2500

hotel.df$HotelNameOYO Rooms Huda City Center Market

-144.0000

hotel.df$HotelNameOYO Rooms IP Mall Sigra

2689.3750

hotel.df$HotelNameOYO Rooms Infocity Road

15.2500

hotel.df$HotelNameOYO Rooms Innovative Multiplex

255.7500

hotel.df$HotelNameOYO Rooms Jaipur Bypass Jhalamand

1822.2500

hotel.df$HotelNameOYO Rooms Jayanagar Ashoka Pillar

763.2500

hotel.df$HotelNameOYO Rooms Jodhpur Railway Station

1330.0000

hotel.df$HotelNameOYO Rooms Jyothi Circle

4.7500

hotel.df$HotelNameOYO Rooms Kachiguda Station Plaza

591.3750

hotel.df$HotelNameOYO Rooms Kalkaji

3830.8750

hotel.df$HotelNameOYO Rooms Kanchan Bagh 2

627.5000

hotel.df$HotelNameOYO Rooms Kankaria Lake Maninagar

-22.0000

hotel.df$HotelNameOYO Rooms Katraj

1021.5000

hotel.df$HotelNameOYO Rooms Khole Ke Hanuman Ji

1130.5000

hotel.df$HotelNameOYO Rooms Kirti Nagar

111.0000

hotel.df$HotelNameOYO Rooms Kisan Bhawan Chowk

1638.5000

hotel.df$HotelNameOYO Rooms Koramangala 4th Block

978.5000

hotel.df$HotelNameOYO Rooms Koramangala 5th Block

983.7500

hotel.df$HotelNameOYO Rooms Koramangala Wipro Signal

1016.2500

hotel.df$HotelNameOYO Rooms Koti Imlibun Bus Station

-93.7500

hotel.df$HotelNameOYO Rooms Lakdi Ka Pul Global Hospital

505.0000

hotel.df$HotelNameOYO Rooms Lake Palace II

4613.6250

hotel.df$HotelNameOYO Rooms Lake Palace Road

1291.6250

hotel.df$HotelNameOYO Rooms Limda Chowk

-0.8750

hotel.df$HotelNameOYO Rooms Limda Chowk II

-155.0000

hotel.df$HotelNameOYO Rooms Link Road

105.5000

hotel.df$HotelNameOYO Rooms Lucknow Junction

731.1250

hotel.df$HotelNameOYO Rooms MDI Gurgaon

-676.0000

hotel.df$HotelNameOYO Rooms Madurai Periyar Bus Stand

1821.7500

hotel.df$HotelNameOYO Rooms Mahmoorganj

391.7500

hotel.df$HotelNameOYO Rooms Main Bazar Paharganj 4769

-618.0000

hotel.df$HotelNameOYO Rooms Main Bazar Paharganj 4770

-660.0000

hotel.df$HotelNameOYO Rooms Main Bazar Paharganj 4771

-660.0000

hotel.df$HotelNameOYO Rooms Main Bazar Paharganj 4772

-660.0000

hotel.df$HotelNameOYO Rooms Main Bazar Paharganj 4773

-660.0000

hotel.df$HotelNameOYO Rooms Main Bazar Paharganj 4774

-618.0000

hotel.df$HotelNameOYO Rooms Main Bazar Paharganj 4775

2128.0000

hotel.df$HotelNameOYO Rooms Main Bazar Paharganj 4776

2128.0000

hotel.df$HotelNameOYO Rooms Malad

5102.1250

hotel.df$HotelNameOYO Rooms Mall Road

52.6250

hotel.df$HotelNameOYO Rooms Mangalore Railway Station

932.6875

hotel.df$HotelNameOYO Rooms Manglore Jyothi Circle

1793.0000

hotel.df$HotelNameOYO Rooms Marathahalli Junction

631.6250

hotel.df$HotelNameOYO Rooms Marathahalli Samsung R&D

630.3750

hotel.df$HotelNameOYO Rooms Medanta II

232.2500

hotel.df$HotelNameOYO Rooms Meenakshi Amman Temple

2599.6875

hotel.df$HotelNameOYO Rooms Model Town

1207.7500

hotel.df$HotelNameOYO Rooms Moulsari Avenue

-691.1250

hotel.df$HotelNameOYO Rooms Moulsari Avenue Flagship

-691.1250

hotel.df$HotelNameOYO Rooms Mysore MG Road

1000.0000

hotel.df$HotelNameOYO Rooms National Highway 6 Near Alampur Crossing

212.3750

[ reached getOption("max.print") -- omitted 670 entries ]

**#Plotting graph for continous independent variables**

**boxplot(hotel.df$RoomRent~hotel.df$Population,data=hotel.df, main="RoomRent vs Population",**

**xlab="Population", ylab="Room Rent")**

**Box Plot added in folder**

**#Drawing table for discontinous independent variables**

**tableDate <- xtabs(hotel.df$RoomRent~hotel.df$Date)**

**View(tableDate)**

|  |  |
| --- | --- |
| **hotel.df.Date** | **Freq** |

|  |  |  |
| --- | --- | --- |
|  |  |  |
| **1** | 18-Dec-16 | 148139 |
| **2** | 21-Dec-16 | 151252 |
| **3** | 24-Dec-16 | 154475 |
| **4** | 25-Dec-16 | 147382 |
| **5** | 28-Dec-16 | 151802 |
| **6** | 31-Dec-16 | 157094 |
| **7** | 4-Jan-16 | 146895 |
| **8** | 4-Jan-17 | 49785 |
| **9** | 8-Jan-16 | 152130 |
| **10** | 8-Jan-17 | 49960 |
| **11** | Dec 18 2016 | 7940717 |
| **12** | Dec 21 2016 | 8264945 |
| **13** | Dec 24 2016 | 9019580 |
| **14** | Dec 25 2016 | 8895775 |
| **15** | Dec 28 2016 | 9106142 |
| **16** | Dec 31 2016 | 10090295 |
| **17** | Jan 04 2017 | 8907986 |
| **18** | Jan 08 2017 | 8337318 |
| **19** | Jan 4 2017 | 268884 |
| **20** | Jan 8 2017 | 291304 |

**tableCity <- xtabs(hotel.df$RoomRent~hotel.df$CityName)**

**View(tableCity)**

|  |  |
| --- | --- |
| **hotel.df.CityName** | **Freq** |

|  |  |  |
| --- | --- | --- |
|  |  |  |
| **1** | **Agra** | **1781692** |
| **2** | **Ahmedabad** | **1770219** |
| **3** | **Amritsar** | **468388** |
| **4** | **Bangalore** | **2697999** |
| **5** | **Bhubaneswar** | **430493** |
| **6** | **Chandigarh** | **1354396** |
| **7** | **Chennai** | **1798637** |
| **8** | **Darjeeling** | **742300** |
| **9** | **Delhi** | **8844505** |
| **10** | **Gangtok** | **592595** |
| **11** | **Goa** | **5098580** |
| **12** | **Guwahati** | **255639** |
| **13** | **Haridwar** | **188157** |
| **14** | **Hyderabad** | **2064766** |
| **15** | **Indore** | **546335** |
| **16** | **Jaipur** | **5600273** |
| **17** | **Jaisalmer** | **1580323** |
| **18** | **Jodhpur** | **2388147** |
| **19** | **Kanpur** | **48137** |
| **20** | **Kochi** | **3672082** |
| **21** | **Kolkata** | **2318841** |
| **22** | **Lucknow** | **752521** |
| **23** | **Madurai** | **534041** |
| **24** | **Manali** | **1399186** |
| **25** | **Mangalore** | **427475** |
| **26** | **Mumbai** | **4516736** |
| **27** | **Munnar** | **2474268** |
| **28** | **Mysore** | **531339** |
| **29** | **Nainital** | **923016** |
| **30** | **Ooty** | **835619** |
| **31** | **Panchkula** | **180064** |
| **32** | **Pune** | **2338591** |
| **33** | **Puri** | **319672** |
| **34** | **Rajkot** | **525706** |
| **35** | **Rishikesh** | **435043** |
| **36** | **Shimla** | **1618569** |
| **37** | **Srinagar** | **422881** |
| **38** | **Surat** | **292868** |
| **39** | **Thiruvanthipuram** | **2636904** |
| **40** | **Thrissur** | **108411** |
| **41** | **Udaipur** | **4626235** |
| **42** | **Varanasi** | **2290211** |

**#Scatter Plots for RoomRent Vs Independent Variables**

**plot(hotel.df$RoomRent, hotel.df$Population, main="Room Rent Vs Population",**

**xlab="Room Rent ", ylab="Population")**

**plot(hotel.df$RoomRent, hotel.df$CityName, main="Room Rent vs City Name ",**

**xlab="Room Rent ", ylab="City Name")**

**plot(hotel.df$RoomRent, hotel.df$Date, main="Room Rent vs Date",**

**xlab="Room Rent ", ylab="Date")**

**All Scatter Plot Added in Folder**

**#Creating new dataframe with only RoomRent and independent variable**

**hotelnew.df <- data.frame(hotel.df$RoomRent ,hotel.df$CityName, hotel.df$Population, hotel.df$Date)**

**View(hotelnew.df)**

|  |  |  |  |
| --- | --- | --- | --- |
| **hotel.df.RoomRent** | **hotel.df.CityName** | **hotel.df.Population** | **hotel.df.Date** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| **649** | **9999** | **Mumbai** | **12442373** | **Dec 18 2016** |
| **650** | **9999** | **Mumbai** | **12442373** | **Dec 21 2016** |
| **651** | **10000** | **Mumbai** | **12442373** | **Dec 24 2016** |
| **652** | **10000** | **Mumbai** | **12442373** | **Dec 25 2016** |
| **653** | **10000** | **Mumbai** | **12442373** | **Dec 28 2016** |
| **654** | **10499** | **Mumbai** | **12442373** | **Dec 31 2016** |
| **655** | **9999** | **Mumbai** | **12442373** | **Jan 04 2017** |
| **656** | **9999** | **Mumbai** | **12442373** | **Jan 08 2017** |
| **657** | **2879** | **Mumbai** | **12442373** | **Dec 18 2016** |
| **658** | **2879** | **Mumbai** | **12442373** | **Dec 21 2016** |
| **659** | **3149** | **Mumbai** | **12442373** | **Dec 24 2016** |
| **660** | **2879** | **Mumbai** | **12442373** | **Dec 25 2016** |
| **661** | **2879** | **Mumbai** | **12442373** | **Dec 28 2016** |
| **662** | **2879** | **Mumbai** | **12442373** | **Dec 31 2016** |
| **663** | **2879** | **Mumbai** | **12442373** | **Jan 04 2017** |
| **664** | **2879** | **Mumbai** | **12442373** | **Jan 08 2017** |
| **665** | **13725** | **Mumbai** | **12442373** | **Dec 18 2016** |
| **666** | **13000** | **Mumbai** | **12442373** | **Dec 21 2016** |
| **667** | **13725** | **Mumbai** | **12442373** | **Dec 24 2016** |
| **668** | **13725** | **Mumbai** | **12442373** | **Dec 25 2016** |
| **669** | **15500** | **Mumbai** | **12442373** | **Dec 28 2016** |
| **670** | **15500** | **Mumbai** | **12442373** | **Dec 31 2016** |
| **671** | **11440** | **Mumbai** | **12442373** | **Jan 04 2017** |
| **672** | **11440** | **Mumbai** | **12442373** | **Jan 08 2017** |
| **673** | **5400** | **Mumbai** | **12442373** | **Dec 18 2016** |
| **674** | **5400** | **Mumbai** | **12442373** | **Dec 21 2016** |
| **675** | **5400** | **Mumbai** | **12442373** | **Dec 24 2016** |
| **676** | **5400** | **Mumbai** | **12442373** | **Dec 25 2016** |
| **677** | **5400** | **Mumbai** | **12442373** | **Dec 28 2016** |
| **678** | **5400** | **Mumbai** | **12442373** | **Dec 31 2016** |
| **679** | **6300** | **Mumbai** | **12442373** | **Jan 04 2017** |
| **680** | **6300** | **Mumbai** | **12442373** | **Jan 08 2017** |
| **681** | **6800** | **Mumbai** | **12442373** | **Dec 18 2016** |
| **682** | **9350** | **Mumbai** | **12442373** | **Dec 21 2016** |
| **683** | **9350** | **Mumbai** | **12442373** | **Dec 24 2016** |
| **684** | **9350** | **Mumbai** | **12442373** | **Dec 25 2016** |
| **685** | **11000** | **Mumbai** | **12442373** | **Dec 28 2016** |
| **686** | **11000** | **Mumbai** | **12442373** | **Dec 31 2016** |
| **687** | **9999** | **Mumbai** | **12442373** | **Jan 04 2017** |
| **688** | **9999** | **Mumbai** | **12442373** | **Jan 08 2017** |
| **689** | **5760** | **Mumbai** | **12442373** | **Dec 18 2016** |
| **690** | **7110** | **Mumbai** | **12442373** | **Dec 21 2016** |
| **691** | **7110** | **Mumbai** | **12442373** | **Dec 24 2016** |
| **692** | **7110** | **Mumbai** | **12442373** | **Dec 25 2016** |
| **693** | **7110** | **Mumbai** | **12442373** | **Dec 28 2016** |
| **694** | **7110** | **Mumbai** | **12442373** | **Dec 31 2016** |
| **695** | **7110** | **Mumbai** | **12442373** | **Jan 04 2017** |
| **696** | **7110** | **Mumbai** | **12442373** | **Jan 08 2017** |
| **697** | **5025** | **Mumbai** | **12442373** | **Dec 18 2016** |
| **698** | **5650** | **Mumbai** | **12442373** | **Dec 21 2016** |
| **699** | **5225** | **Mumbai** | **12442373** | **Dec 24 2016** |
| **700** | **5225** | **Mumbai** | **12442373** | **Dec 25 2016** |
| **701** | **5225** | **Mumbai** | **12442373** | **Dec 28 2016** |
| **702** | **6150** | **Mumbai** | **12442373** | **Dec 31 2016** |
| **703** | **6150** | **Mumbai** | **12442373** | **Jan 04 2017** |
| **704** | **5225** | **Mumbai** | **12442373** | **Jan 08 2017** |
| **705** | **6428** | **Mumbai** | **12442373** | **Dec 18 2016** |
| **706** | **6428** | **Mumbai** | **12442373** | **Dec 21 2016** |
| **707** | **6428** | **Mumbai** | **12442373** | **Dec 24 2016** |
| **708** | **6428** | **Mumbai** | **12442373** | **Dec 25 2016** |
| **709** | **6428** | **Mumbai** | **12442373** | **Dec 28 2016** |
| **710** | **6428** | **Mumbai** | **12442373** | **Dec 31 2016** |
| **711** | **5356** | **Mumbai** | **12442373** | **Jan 04 2017** |
| **712** | **5356** | **Mumbai** | **12442373** | **Jan 08 2017** |
| **713** | **4150** | **Delhi** | **11034555** | **Dec 18 2016** |
| **714** | **4150** | **Delhi** | **11034555** | **Dec 21 2016** |
| **715** | **4150** | **Delhi** | **11034555** | **Dec 24 2016** |
| **716** | **4150** | **Delhi** | **11034555** | **Dec 25 2016** |
| **717** | **4150** | **Delhi** | **11034555** | **Dec 28 2016** |
| **718** | **4150** | **Delhi** | **11034555** | **Dec 31 2016** |
| **719** | **3937** | **Delhi** | **11034555** | **Jan 04 2017** |
| **720** | **3937** | **Delhi** | **11034555** | **Jan 08 2017** |
| **721** | **3500** | **Delhi** | **11034555** | **Dec 18 2016** |

**#Converting All new features into numeric**

**RoomRent = as.numeric(hotelnew.df$hotel.df.RoomRent)**

**Population = as.numeric(hotelnew.df$hotel.df.Population)**

**Date = as.numeric(hotelnew.df$hotel.df.Date)**

**CityName = as.numeric(hotelnew.df$hotel.df.CityName)**

**#Binding them to a table**

**M <- cbind(RoomRent,Population,Date,CityName)**

**#Drawing corrgram for all the new features of Dataset**

**library(corrgram)**

**corrgram(M, order=TRUE, lower.panel=panel.shade,**

**upper.panel=panel.pie, text.panel=panel.txt,**

**main="Hotel Pricing")**

**Corrgram Added in Folder**

#Drawing the Variance - Covariance Matrix for Y, X1, X2, X3

cor(M)

RoomRent Population Date CityName

RoomRent 1.00000000 -0.08872806 0.04592847 0.1149482

Population -0.08872806 1.00000000 -0.08501849 -0.4003161

Date 0.04592847 -0.08501849 1.00000000 0.1074896

CityName 0.11494819 -0.40031610 0.10748965 1.0000000

**#Hypothesis Testing Between RoomRent and Population**

**t.test(RoomRent,Population)**

Welch Two Sample t-test

data: RoomRent and Population

t = -119.16, df = 13231, p-value < 2.2e-16

alternative hypothesis: true difference in means is not equal to 0

95 percent confidence interval:

-4483927 -4338799

sample estimates:

mean of x mean of y

5473.992 4416836.872

**#Hypothesis Testing Between RoomRent and Date**

**t.test(RoomRent,Date)**

Welch Two Sample t-test

data: RoomRent and Date

t = 85.644, df = 13231, p-value < 2.2e-16

alternative hypothesis: true difference in means is not equal to 0

95 percent confidence interval:

5334.776 5584.692

sample estimates:

mean of x mean of y

5473.99184 14.25816

**#Hypothesis Testing Between RoomRent and CityName**

**t.test(RoomRent,CityName)**

Welch Two Sample t-test

data: RoomRent and CityName

t = 85.584, df = 13231, p-value < 2.2e-16

alternative hypothesis: true difference in means is not equal to 0

95 percent confidence interval:

5330.967 5580.883

sample estimates:

mean of x mean of y

5473.99184 18.06651

**#Fitting Of Linear Regeression Model**

**fitFinal <- lm(RoomRent~CityName+Date+Population)**

**coef(fitFinal)**

(Intercept) CityName Date Population

3.628207e+03 5.745056e+01 8.294190e+01 -8.484466e-05