#1. Defining the Question

##a)   Objective   To create a model that will consistently and accurately identify which individuals are most likely to click on ads. ##b) Defining the metric of success The model will be considered a success when it is able to consistently and accurately predict the target variable with an accuracy of 85% - 95%. The range ensures we have a well performing model while also avoiding overfitting.   ##c) Understanding the context A Kenyan entrepreneur has created an online cryptography course and would want to advertise it on her blog. She currently targets audiences originating from various countries. In the past, she ran ads to advertise a related course on the same blog and collected data in the process. She would now like to employ my services as a Data Science Consultant to help her identify which individuals are most likely to click on her ads. ##d) Recording the experimental design The process will entail: * Defining the question, the metric for success, the context, experimental design taken. * Reading and explore the given dataset. * Defining the appropriateness of the available data to answer the given question.   * Finding and deal with outliers, anomalies, and missing data within the dataset. * Performing univariate and bivariate analysis recording my observations. * Implementing the solution. * Challenging the solution. * Follow up questions.   ##e) Data Relevance The appropriate dataset for this project is one that contains data on the characteristics of the individuals who read the client's blogs.Its appropriateness will be measured against the metrics of success. The following are the descriptions of the columns contained in the dataset: * Daily Time Spent on Site: Time (in minutes) that the individual spent on the site * Age: Individuals's age in years * Area Income: Average income of geographical area of the individual * Daily Internet Usage: Time (in minutes) that the individual spent on the internet * Ad Topic Line: Headline of the advertisement * City: The individuals's city * Male: Whether or not the individual was male (1=yes, 0=no) * Country: The individuals's country * Timestamp: Date and time the individual visited the site * Clicked on Ad: Whether or not the individual clicked on an ad (1=yes, 0=no) [Advertising dataset](http://bit.ly/IPAdvertisingData) # 2. Reading the Data

```
## -- Attaching packages --------------------------------------- tidyverse 1.3.1 --
```

```
## v ggplot2 3.3.6     v purrr   0.3.4
## v tibble  3.1.7     v dplyr   1.0.9
## v tidyr   1.2.0     v stringr 1.4.0
## v readr   2.1.2     v forcats 0.5.1
```

```
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```
## Loading required package: xts
```

```
## Loading required package: zoo
```

```
##
## Attaching package: 'zoo'
```

```
## The following objects are masked from 'package:base':
##
##     as.Date, as.Date.numeric
```

```
##
## Attaching package: 'xts'
```

```
## The following objects are masked from 'package:dplyr':
##
##     first, last


##
## Attaching package: 'PerformanceAnalytics'

## The following object is masked from 'package:graphics':
##
##     legend


##
## Attaching package: 'e1071'

## The following objects are masked from 'package:PerformanceAnalytics':
##
##     kurtosis, skewness


## Loading required package: lattice

##
## Attaching package: 'caret'

## The following object is masked from 'package:purrr':
##
##     lift


## Loaded gbm 2.1.8

## corrplot 0.92 loaded

##
## Attaching package: 'MASS'

## The following object is masked from 'package:dplyr':
##
##     select


## naivebayes 0.9.7 loaded

## Loading required package: Matrix

##
## Attaching package: 'Matrix'

## The following objects are masked from 'package:tidyr':
##
##     expand, pack, unpack


## Loaded glmnet 4.1-4
```

```
## Loading required package: survival


##
## Attaching package: 'survival'


## The following object is masked from 'package:caret':
##
##     cluster


## Loading required package: Formula


##
## Attaching package: 'Hmisc'


## The following object is masked from 'package:e1071':
##
##     impute


## The following objects are masked from 'package:dplyr':
##
##     src, summarize


## The following objects are masked from 'package:base':
##
##     format.pval, units


## funModeling v.1.9.4 :)
## Examples and tutorials at livebook.datascienceheroes.com
##  / Now in Spanish: librovivodecienciadedatos.ai


## Type 'citation("pROC")' for a citation.


##
## Attaching package: 'pROC'


## The following objects are masked from 'package:stats':
##
##     cov, smooth, var


## randomForest 4.7-1.1


## Type rfNews() to see new features/changes/bug fixes.


##
## Attaching package: 'randomForest'


## The following object is masked from 'package:dplyr':
##
##     combine
```

```
## The following object is masked from 'package:ggplot2':
##
##     margin


##
## Attaching package: 'scales'

## The following object is masked from 'package:purrr':
##
##     discard


## The following object is masked from 'package:readr':
##
##     col_factor


## Welcome! Want to learn more? See two factoextra-related books at https://goo.gl/ve3WBa


## Registered S3 method overwritten by 'GGally':
##   method from
##   +.gg   ggplot2


##
## Attaching package: 'GGally'


## The following object is masked from 'package:funModeling':
##
##     range01
```

```r
advertising <- read.csv(file = 'advertising.csv')
```

#3. Checking the data

```r
# Viewing the top 6 entries
head(advertising)
```

```
##   Daily.Time.Spent.on.Site Age Area.Income Daily.Internet.Usage
## 1                    68.95  35    61833.90               256.09
## 2                    80.23  31    68441.85               193.77
## 3                    69.47  26    59785.94               236.50
## 4                    74.15  29    54806.18               245.89
## 5                    68.37  35    73889.99               225.58
## 6                    59.99  23    59761.56               226.74
##                           Ad.Topic.Line           City Male    Country
## 1    Cloned 5thgeneration orchestration     Wrightburgh    0    Tunisia
## 2    Monitored national standardization       West Jodi    1      Nauru
## 3       Organic bottom-line service-desk        Davidton    0 San Marino
## 4 Triple-buffered reciprocal time-frame West Terrifurt    1      Italy
## 5         Robust logistical utilization    South Manuel    0    Iceland
## 6        Sharable client-driven software       Jamieberg    1     Norway
##             Timestamp Clicked.on.Ad
## 1 2016-03-27 00:53:11             0
```

```
## 2 2016-04-04 01:39:02               0
## 3 2016-03-13 20:35:42               0
## 4 2016-01-10 02:31:19               0
## 5 2016-06-03 03:36:18               0
## 6 2016-05-19 14:30:17               0
```

```r
#viewing the whole data set
#View(advertising)
#Data types of the columns
str(advertising)
```

```
## 'data.frame':    1000 obs. of  10 variables:
##  $ Daily.Time.Spent.on.Site: num  69 80.2 69.5 74.2 68.4 ...
##  $ Age                     : int  35 31 26 29 35 23 33 48 30 20 ...
##  $ Area.Income             : num  61834 68442 59786 54806 73890 ...
##  $ Daily.Internet.Usage    : num  256 194 236 246 226 ...
##  $ Ad.Topic.Line           : chr  "Cloned 5thgeneration orchestration" "Monitored national standardiz
##  $ City                    : chr  "Wrightburgh" "West Jodi" "Davidton" "West Terrifurt" ...
##  $ Male                    : int  0 1 0 1 0 1 0 1 1 1 ...
##  $ Country                 : chr  "Tunisia" "Nauru" "San Marino" "Italy" ...
##  $ Timestamp               : chr  "2016-03-27 00:53:11" "2016-04-04 01:39:02" "2016-03-13 20:35:42" 
##  $ Clicked.on.Ad           : int  0 0 0 0 0 0 0 1 0 0 ...
```

```r
#Statistical summary of the data set
summary(advertising)
```

```
##  Daily.Time.Spent.on.Site      Age          Area.Income     Daily.Internet.Usage
##  Min.   :32.60            Min.   :19.00   Min.   :13996   Min.   :104.8
##  1st Qu.:51.36            1st Qu.:29.00   1st Qu.:47032   1st Qu.:138.8
##  Median :68.22            Median :35.00   Median :57012   Median :183.1
##  Mean   :65.00            Mean   :36.01   Mean   :55000   Mean   :180.0
##  3rd Qu.:78.55            3rd Qu.:42.00   3rd Qu.:65471   3rd Qu.:218.8
##  Max.   :91.43            Max.   :61.00   Max.   :79485   Max.   :270.0
##  Ad.Topic.Line          City               Male          Country
##  Length:1000        Length:1000        Min.   :0.000   Length:1000
##  Class :character   Class :character   1st Qu.:0.000   Class :character
##  Mode  :character   Mode  :character   Median :0.000   Mode  :character
##                                        Mean   :0.481
##                                        3rd Qu.:1.000
##                                        Max.   :1.000
##    Timestamp         Clicked.on.Ad
##  Length:1000        Min.   :0.0
##  Class :character   1st Qu.:0.0
##  Mode  :character   Median :0.5
##                     Mean   :0.5
##                     3rd Qu.:1.0
##                     Max.   :1.0
```

```r
#checking the number of entries and attributes
dim(advertising)
```

```
## [1] 1000   10
```

```
#checking the class of our object
class(advertising)
```

```
## [1] "data.frame"
```

#4. Tidying the data/ Data Cleaning

Checking for missing data

```
#Data completeness
#Checking for missing data
colSums(is.na(advertising))
```

```
## Daily.Time.Spent.on.Site                     Age              Area.Income
##                        0                       0                        0
##     Daily.Internet.Usage           Ad.Topic.Line                     City
##                        0                       0                        0
##                     Male                 Country                Timestamp
##                        0                       0                        0
##            Clicked.on.Ad
##                        0
```

There are no missing values in our data set. *Checking for duplicates*

```
#Data consistency
duplicated.rows <- advertising[duplicated(advertising),]
duplicated.rows
```

```
##  [1] Daily.Time.Spent.on.Site Age                      Area.Income
##  [4] Daily.Internet.Usage     Ad.Topic.Line            City
##  [7] Male                     Country                  Timestamp
## [10] Clicked.on.Ad
## <0 rows> (or 0-length row.names)
```

```
anyDuplicated(advertising)
```

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

There is no duplicated data in our dataset

```
#Changing the male dt
advertising$Male <- as.factor(advertising$Male)
head(advertising)
```

```
##   Daily.Time.Spent.on.Site Age Area.Income Daily.Internet.Usage
## 1                    68.95  35    61833.90               256.09
## 2                    80.23  31    68441.85               193.77
## 3                    69.47  26    59785.94               236.50
## 4                    74.15  29    54806.18               245.89
## 5                    68.37  35    73889.99               225.58
```

```
## 6                          59.99  23    59761.56                 226.74
##                             Ad.Topic.Line          City Male    Country
## 1     Cloned 5thgeneration orchestration    Wrightburgh    0    Tunisia
## 2      Monitored national standardization      West Jodi    1      Nauru
## 3        Organic bottom-line service-desk        Davidton    0 San Marino
## 4 Triple-buffered reciprocal time-frame West Terrifurt    1      Italy
## 5          Robust logistical utilization    South Manuel    0    Iceland
## 6         Sharable client-driven software      Jamieberg    1     Norway
##               Timestamp Clicked.on.Ad
## 1 2016-03-27 00:53:11              0
## 2 2016-04-04 01:39:02              0
## 3 2016-03-13 20:35:42              0
## 4 2016-01-10 02:31:19              0
## 5 2016-06-03 03:36:18              0
## 6 2016-05-19 14:30:17              0
```

```r
#coverting clicked on ad column to factor
advertising$Clicked.on.Ad <- as.factor(advertising$Clicked.on.Ad)
str(advertising)
```

```
## 'data.frame':    1000 obs. of  10 variables:
##  $ Daily.Time.Spent.on.Site: num  69 80.2 69.5 74.2 68.4 ...
##  $ Age                     : int  35 31 26 29 35 23 33 48 30 20 ...
##  $ Area.Income             : num  61834 68442 59786 54806 73890 ...
##  $ Daily.Internet.Usage    : num  256 194 236 246 226 ...
##  $ Ad.Topic.Line           : chr  "Cloned 5thgeneration orchestration" "Monitored national standardi:
##  $ City                    : chr  "Wrightburgh" "West Jodi" "Davidton" "West Terrifurt" ...
##  $ Male                    : Factor w/ 2 levels "0","1": 1 2 1 2 1 2 1 2 2 2 ...
##  $ Country                 : chr  "Tunisia" "Nauru" "San Marino" "Italy" ...
##  $ Timestamp               : chr  "2016-03-27 00:53:11" "2016-04-04 01:39:02" "2016-03-13 20:35:42" "
##  $ Clicked.on.Ad           : Factor w/ 2 levels "0","1": 1 1 1 1 1 1 1 2 1 1 ...
```

```r
#converting timestamp column to datetime
library('lubridate')
```

```
##
## Attaching package: 'lubridate'
```

```
## The following objects are masked from 'package:base':
##
##     date, intersect, setdiff, union
```

```r
library('dplyr')
advertising %>%
  mutate_all(type.convert)%>%
  mutate_if(is.factor, as.character)%>%
  mutate(Timestamp= as_datetime(Timestamp, tz=Sys.timezone()))
```

```
## Warning in type.convert.default(Daily.Time.Spent.on.Site): 'as.is' should be
## specified by the caller; using TRUE
```

```
## Warning in type.convert.default(Age): 'as.is' should be specified by the caller;
## using TRUE
```

```
## Warning in type.convert.default(Area.Income): 'as.is' should be specified by the
## caller; using TRUE

## Warning in type.convert.default(Daily.Internet.Usage): 'as.is' should be
## specified by the caller; using TRUE

## Warning in type.convert.default(Ad.Topic.Line): 'as.is' should be specified by
## the caller; using TRUE

## Warning in type.convert.default(City): 'as.is' should be specified by the
## caller; using TRUE

## Warning in type.convert.default(Male): 'as.is' should be specified by the
## caller; using TRUE

## Warning in type.convert.default(Country): 'as.is' should be specified by the
## caller; using TRUE

## Warning in type.convert.default(Timestamp): 'as.is' should be specified by the
## caller; using TRUE

## Warning in type.convert.default(Clicked.on.Ad): 'as.is' should be specified by
## the caller; using TRUE

##       Daily.Time.Spent.on.Site Age Area.Income Daily.Internet.Usage
## 1                        68.95  35    61833.90               256.09
## 2                        80.23  31    68441.85               193.77
## 3                        69.47  26    59785.94               236.50
## 4                        74.15  29    54806.18               245.89
## 5                        68.37  35    73889.99               225.58
## 6                        59.99  23    59761.56               226.74
## 7                        88.91  33    53852.85               208.36
## 8                        66.00  48    24593.33               131.76
## 9                        74.53  30    68862.00               221.51
## 10                       69.88  20    55642.32               183.82
## 11                       47.64  49    45632.51               122.02
## 12                       83.07  37    62491.01               230.87
## 13                       69.57  48    51636.92               113.12
## 14                       79.52  24    51739.63               214.23
## 15                       42.95  33    30976.00               143.56
## 16                       63.45  23    52182.23               140.64
## 17                       55.39  37    23936.86               129.41
## 18                       82.03  41    71511.08               187.53
## 19                       54.70  36    31087.54               118.39
## 20                       74.58  40    23821.72               135.51
## 21                       77.22  30    64802.33               224.44
## 22                       84.59  35    60015.57               226.54
## 23                       41.49  52    32635.70               164.83
## 24                       87.29  36    61628.72               209.93
## 25                       41.39  41    68962.32               167.22
## 26                       78.74  28    64828.00               204.79
## 27                       48.53  28    38067.08               134.14
```

```
## 28                    51.95  52    58295.82            129.23
## 29                    70.20  34    32708.94            119.20
## 30                    76.02  22    46179.97            209.82
## 31                    67.64  35    51473.28            267.01
## 32                    86.41  28    45593.93            207.48
## 33                    59.05  57    25583.29            169.23
## 34                    55.60  23    30227.98            212.58
## 35                    57.64  57    45580.92            133.81
## 36                    84.37  30    61389.50            201.58
## 37                    62.26  53    56770.79            125.45
## 38                    65.82  39    76435.30            221.94
## 39                    50.43  46    57425.87            119.32
## 40                    38.93  39    27508.41            162.08
## 41                    84.98  29    57691.95            202.61
## 42                    64.24  30    59784.18            252.36
## 43                    82.52  32    66572.39            198.11
## 44                    81.38  31    64929.61            212.30
## 45                    80.47  25    57519.64            204.86
## 46                    37.68  52    53575.48            172.83
## 47                    69.62  20    50983.75            202.25
## 48                    85.40  43    67058.72            198.72
## 49                    44.33  37    52723.34            123.72
## 50                    48.01  46    54286.10            119.93
## 51                    73.18  23    61526.25            196.71
## 52                    79.94  28    58526.04            225.29
## 53                    33.33  45    53350.11            193.58
## 54                    50.33  50    62657.53            133.20
## 55                    62.31  47    62722.57            119.30
## 56                    80.60  31    67479.62            177.55
## 57                    65.19  36    75254.88            150.61
## 58                    44.98  49    52336.64            129.31
## 59                    77.63  29    56113.37            239.22
## 60                    41.82  41    24852.90            156.36
## 61                    85.61  27    47708.42            183.43
## 62                    85.84  34    64654.66            192.93
## 63                    72.08  29    71228.44            169.50
## 64                    86.06  32    61601.05            178.92
## 65                    45.96  45    66281.46            141.22
## 66                    62.42  29    73910.90            198.50
## 67                    63.89  40    51317.33            105.22
## 68                    35.33  32    51510.18            200.22
## 69                    75.74  25    61005.87            215.25
## 70                    78.53  34    32536.98            131.72
## 71                    46.13  31    60248.97            139.01
## 72                    69.01  46    74543.81            222.63
## 73                    55.35  39    75509.61            153.17
## 74                    33.21  43    42650.32            167.07
## 75                    38.46  42    58183.04            145.98
## 76                    64.10  22    60465.72            215.93
## 77                    49.81  35    57009.76            120.06
## 78                    82.73  33    54541.56            238.99
## 79                    56.14  38    32689.04            113.53
## 80                    55.13  45    55605.92            111.71
## 81                    78.11  27    63296.87            209.25
```

```
## 82          73.46  28  65653.47       222.75
## 83          56.64  38  61652.53       115.91
## 84          68.94  54  30726.26       138.71
## 85          70.79  31  74535.94       184.10
## 86          57.76  41  47861.93       105.15
## 87          77.51  36  73600.28       200.55
## 88          52.70  34  58543.94       118.60
## 89          57.70  34  42696.67       109.07
## 90          56.89  37  37334.78       109.29
## 91          69.90  43  71392.53       138.35
## 92          55.79  24  59550.05       149.67
## 93          70.03  26  64264.25       227.72
## 94          50.08  40  64147.86       125.85
## 95          43.67  31  25686.34       166.29
## 96          72.84  26  52968.22       238.63
## 97          45.72  36  22473.08       154.02
## 98          39.94  41  64927.19       156.30
## 99          35.61  46  51868.85       158.22
## 100         79.71  34  69456.83       211.65
## 101         41.49  53  31947.65       169.18
## 102         63.60  23  51864.77       235.28
## 103         89.91  40  59593.56       194.23
## 104         68.18  21  48376.14       218.17
## 105         66.49  20  56884.74       202.16
## 106         80.49  40  67186.54       229.12
## 107         72.23  25  46557.92       241.03
## 108         42.39  42  66541.05       150.99
## 109         47.53  30  33258.09       135.18
## 110         74.02  32  72272.90       210.54
## 111         66.63  60  60333.38       176.98
## 112         63.24  53  65229.13       235.78
## 113         71.00  22  56067.38       211.87
## 114         46.13  46  37838.72       123.64
## 115         69.00  32  72683.35       221.21
## 116         76.99  31  56729.78       244.34
## 117         72.60  55  66815.54       162.95
## 118         61.88  42  60223.52       112.19
## 119         84.45  50  29727.79       207.18
## 120         88.97  45  49269.98       152.49
## 121         86.19  31  57669.41       210.26
## 122         49.58  26  56791.75       231.94
## 123         77.65  27  63274.88       212.79
## 124         37.75  36  35466.80       225.24
## 125         62.33  43  68787.09       127.11
## 126         79.57  31  61227.59       230.93
## 127         80.31  44  56366.88       127.07
## 128         89.05  45  57868.44       206.98
## 129         70.41  27  66618.21       223.03
## 130         67.36  37  73104.47       233.56
## 131         46.98  50  21644.91       175.37
## 132         41.67  36  53817.02       132.55
## 133         51.24  36  76368.31       176.73
## 134         75.70  29  67633.44       215.44
## 135         43.49  47  50335.46       127.83
```

```
## 136                 49.89  39   17709.98              160.03
## 137                 38.37  36   41229.16              140.46
## 138                 38.52  38   42581.23              137.28
## 139                 71.89  23   61617.98              172.81
## 140                 75.80  38   70575.60              146.19
## 141                 83.86  31   64122.36              190.25
## 142                 37.51  30   52097.32              163.00
## 143                 55.60  44   65953.76              124.38
## 144                 83.67  44   60192.72              234.26
## 145                 69.08  41   77460.07              210.60
## 146                 37.47  44   45716.48              141.89
## 147                 56.04  49   65120.86              128.95
## 148                 70.92  41   49995.63              108.16
## 149                 49.78  46   71718.51              152.24
## 150                 68.61  57   61770.34              150.29
## 151                 58.18  25   69112.84              176.28
## 152                 78.54  35   72524.86              172.10
## 153                 37.00  48   36782.38              158.22
## 154                 65.40  33   66699.12              247.31
## 155                 79.52  27   64287.78              183.48
## 156                 87.98  38   56637.59              222.11
## 157                 44.64  36   55787.58              127.01
## 158                 41.73  28   61142.33              202.18
## 159                 80.46  27   61625.87              207.96
## 160                 75.55  36   73234.87              159.24
## 161                 76.32  35   74166.24              195.31
## 162                 82.68  33   62669.59              222.77
## 163                 72.01  31   57756.89              251.00
## 164                 75.83  24   58019.64              162.44
## 165                 41.28  50   50960.08              140.39
## 166                 34.66  32   48246.60              194.83
## 167                 66.18  55   28271.84              143.42
## 168                 86.06  31   53767.12              219.72
## 169                 59.59  42   43662.10              104.78
## 170                 86.69  34   62238.58              198.56
## 171                 43.77  52   49030.03              138.55
## 172                 71.84  47   76003.47              199.79
## 173                 80.23  31   68094.85              196.23
## 174                 74.41  26   64395.85              163.05
## 175                 63.36  48   70053.27              137.43
## 176                 71.74  35   72423.97              227.56
## 177                 60.72  44   42995.80              105.69
## 178                 72.04  22   60309.58              199.43
## 179                 44.57  31   38349.78              133.17
## 180                 85.86  34   63115.34              208.23
## 181                 39.85  38   31343.39              145.96
## 182                 84.53  27   40763.13              168.34
## 183                 62.95  60   36752.24              157.04
## 184                 67.58  41   65044.59              255.61
## 185                 85.56  29   53673.08              210.46
## 186                 46.88  54   43444.86              136.64
## 187                 46.31  57   44248.52              153.98
## 188                 77.95  31   62572.88              233.65
## 189                 84.73  30   39840.55              153.76
```

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## 190                  39.86  36    32593.59              145.85
## 191                  50.08  30    41629.86              123.91
## 192                  60.23  35    43313.73              106.86
## 193                  60.70  49    42993.48              110.57
## 194                  43.67  53    46004.31              143.79
## 195                  77.20  33    49325.48              254.05
## 196                  71.86  32    51633.34              116.53
## 197                  44.78  45    63363.04              137.24
## 198                  78.57  36    64045.93              239.32
## 199                  73.41  31    73049.30              201.26
## 200                  77.05  27    66624.60              191.14
## 201                  66.40  40    77567.85              214.42
## 202                  69.35  29    53431.35              252.77
## 203                  35.65  40    31265.75              172.58
## 204                  70.04  31    74780.74              183.85
## 205                  69.78  29    70410.11              218.79
## 206                  58.22  29    37345.24              120.90
## 207                  76.90  28    66107.84              212.67
## 208                  84.08  30    62336.39              187.36
## 209                  59.51  58    39132.64              140.83
## 210                  40.15  38    38745.29              134.88
## 211                  76.81  28    65172.22              217.85
## 212                  41.89  38    68519.96              163.38
## 213                  76.87  27    54774.77              235.35
## 214                  67.28  43    76246.96              155.80
## 215                  81.98  40    65461.92              229.22
## 216                  66.01  23    34127.21              151.95
## 217                  61.57  53    35253.98              125.94
## 218                  53.30  34    44893.71              111.94
## 219                  34.87  40    59621.02              200.23
## 220                  43.60  38    20856.54              170.49
## 221                  77.88  37    55353.41              254.57
## 222                  75.83  27    67516.07              200.59
## 223                  49.95  39    68737.75              136.59
## 224                  60.94  41    76893.84              154.97
## 225                  89.15  42    59886.58              171.07
## 226                  78.70  30    53441.69              133.99
## 227                  57.35  29    41356.31              119.84
## 228                  34.86  38    49942.66              154.75
## 229                  70.68  31    74430.08              199.08
## 230                  76.06  23    58633.63              201.04
## 231                  66.67  33    72707.87              228.03
## 232                  46.77  32    31092.93              136.40
## 233                  62.42  38    74445.18              143.94
## 234                  78.32  28    49309.14              239.52
## 235                  37.32  50    56735.14              199.25
## 236                  40.42  45    40183.75              133.90
## 237                  76.77  36    58348.41              123.51
## 238                  65.65  30    72209.99              158.05
## 239                  74.32  33    62060.11              128.17
## 240                  73.27  32    67113.46              234.75
## 241                  80.03  44    24030.06              150.84
## 242                  53.68  47    56180.93              115.26
## 243                  85.84  32    62204.93              192.85
```

```
## 244                       85.03  30    60372.64                204.52
## 245                       70.44  24    65280.16                178.75
## 246                       81.22  53    34309.24                223.09
## 247                       39.96  45    59610.81                146.13
## 248                       57.05  41    50278.89                269.96
## 249                       42.44  56    43450.11                168.27
## 250                       62.20  25    25408.21                161.16
## 251                       76.70  36    71136.49                222.25
## 252                       61.22  45    63883.81                119.03
## 253                       84.54  33    64902.47                204.02
## 254                       46.08  30    66784.81                164.63
## 255                       56.70  48    62784.85                123.13
## 256                       81.03  28    63727.50                201.15
## 257                       80.91  32    61608.23                231.42
## 258                       40.06  38    56782.18                138.68
## 259                       83.47  39    64447.77                226.11
## 260                       73.84  31    42042.95                121.05
## 261                       74.65  28    67669.06                212.56
## 262                       60.25  35    54875.95                109.77
## 263                       59.21  35    73347.67                144.62
## 264                       43.02  44    50199.77                125.22
## 265                       84.04  38    50723.67                244.55
## 266                       70.66  43    63450.96                120.95
## 267                       70.58  26    56694.12                136.94
## 268                       72.44  34    70547.16                230.14
## 269                       40.17  26    47391.95                171.31
## 270                       79.15  26    62312.23                203.23
## 271                       44.49  53    63100.13                168.00
## 272                       73.04  37    73687.50                221.79
## 273                       76.28  33    52686.47                254.34
## 274                       68.88  37    78119.50                179.58
## 275                       73.10  28    57014.84                242.37
## 276                       47.66  29    27086.40                156.54
## 277                       87.30  35    58337.18                216.87
## 278                       89.34  32    50216.01                177.78
## 279                       81.37  26    53049.44                156.48
## 280                       81.67  28    62927.96                196.76
## 281                       46.37  52    32847.53                144.27
## 282                       54.88  24    32006.82                148.61
## 283                       40.67  35    48913.07                133.18
## 284                       71.76  35    69285.69                237.39
## 285                       47.51  51    53700.57                130.41
## 286                       75.15  22    52011.00                212.87
## 287                       56.01  26    46339.25                127.26
## 288                       82.87  37    67938.77                213.36
## 289                       45.05  42    66348.95                141.36
## 290                       60.53  24    66873.90                167.22
## 291                       50.52  31    72270.88                171.62
## 292                       84.71  32    61610.05                210.23
## 293                       55.20  39    76560.59                159.46
## 294                       81.61  33    62667.51                228.76
## 295                       71.55  36    75687.46                163.99
## 296                       82.40  36    66744.65                218.97
## 297                       73.95  35    67714.82                238.58
```

```
## 298            72.07  31   69710.51           226.45
## 299            80.39  31   66269.49           214.74
## 300            65.80  25   60843.32           231.49
## 301            69.97  28   55041.60           250.00
## 302            52.62  50   73863.25           176.52
## 303            39.25  39   62378.05           152.36
## 304            77.56  38   63336.85           130.83
## 305            33.52  43   42191.61           165.56
## 306            79.81  24   56194.56           178.85
## 307            84.79  33   61771.90           214.53
## 308            82.70  35   61383.79           231.07
## 309            84.88  32   63924.82           186.48
## 310            54.92  54   23975.35           161.16
## 311            76.56  34   70179.11           221.53
## 312            69.74  49   66524.80           243.37
## 313            75.55  22   41851.38           169.40
## 314            72.19  33   61275.18           250.35
## 315            84.29  41   60638.38           232.54
## 316            73.89  39   47160.53           110.68
## 317            75.84  21   48537.18           186.98
## 318            73.38  25   53058.91           236.19
## 319            80.72  31   68614.98           186.37
## 320            62.06  44   44174.25           105.00
## 321            51.50  34   67050.16           135.31
## 322            90.97  37   54520.14           180.77
## 323            86.78  30   54952.42           170.13
## 324            66.18  35   69476.42           243.61
## 325            84.33  41   54989.93           240.95
## 326            36.87  36   29398.61           195.91
## 327            34.78  48   42861.42           208.21
## 328            76.84  32   65883.39           231.59
## 329            67.05  25   65421.39           220.92
## 330            41.47  31   60953.93           219.79
## 331            80.71  26   58476.57           200.58
## 332            80.09  31   66636.84           214.08
## 333            56.30  49   67430.96           135.24
## 334            79.36  34   57260.41           245.78
## 335            86.38  40   66359.32           188.27
## 336            38.94  41   57587.00           142.67
## 337            87.26  35   63060.55           184.03
## 338            75.32  28   59998.50           233.60
## 339            74.38  40   74024.61           220.05
## 340            65.90  22   60550.66           211.39
## 341            36.31  47   57983.30           168.92
## 342            72.23  48   52736.33           115.35
## 343            88.12  38   46653.75           230.91
## 344            83.97  28   56986.73           205.50
## 345            61.09  26   55336.18           131.68
## 346            65.77  21   42162.90           218.61
## 347            81.58  25   39699.13           199.39
## 348            37.87  52   56394.82           188.56
## 349            76.20  37   75044.35           178.51
## 350            60.91  19   53309.61           184.94
## 351            74.49  28   58996.12           237.34
```

```
## 352                   73.71  23    56605.12           211.38
## 353                   78.19  30    62475.99           228.81
## 354                   79.54  44    70492.60           217.68
## 355                   74.87  52    43698.53           126.97
## 356                   87.09  36    57737.51           221.98
## 357                   37.45  47    31281.01           167.86
## 358                   49.84  39    45800.48           111.59
## 359                   51.38  59    42362.49           158.56
## 360                   83.40  34    66691.23           207.87
## 361                   38.91  33    56369.74           150.80
## 362                   62.14  41    59397.89           110.93
## 363                   79.72  28    66025.11           193.80
## 364                   73.30  36    68211.35           135.72
## 365                   69.11  42    73608.99           231.48
## 366                   71.90  54    61228.96           140.15
## 367                   72.45  29    72325.91           195.36
## 368                   77.07  40    44559.43           261.02
## 369                   74.62  36    73207.15           217.79
## 370                   82.07  25    46722.07           205.38
## 371                   58.60  50    45400.50           113.70
## 372                   36.08  45    41417.27           151.47
## 373                   79.44  26    60845.55           206.79
## 374                   41.73  47    60812.77           144.71
## 375                   73.19  25    64267.88           203.74
## 376                   77.60  24    58151.87           197.33
## 377                   89.00  37    52079.18           222.26
## 378                   69.20  42    26023.99           123.80
## 379                   67.56  31    62318.38           125.45
## 380                   81.11  39    56216.57           248.19
## 381                   80.22  30    61806.31           224.58
## 382                   43.63  41    51662.24           123.25
## 383                   77.66  29    67080.94           168.15
## 384                   74.63  26    51975.41           235.99
## 385                   49.67  27    28019.09           153.69
## 386                   80.59  37    67744.56           224.23
## 387                   83.49  33    66574.00           190.75
## 388                   44.46  42    30487.48           132.66
## 389                   68.10  40    74903.41           227.73
## 390                   63.88  38    19991.72           136.85
## 391                   78.83  36    66050.63           234.64
## 392                   79.97  44    70449.04           216.00
## 393                   80.51  28    64008.55           200.28
## 394                   62.26  26    70203.74           202.77
## 395                   66.99  47    27262.51           124.44
## 396                   71.05  20    49544.41           204.22
## 397                   42.05  51    28357.27           174.55
## 398                   50.52  28    66929.03           219.69
## 399                   76.24  40    75524.78           198.32
## 400                   77.29  27    66265.34           201.24
## 401                   35.98  47    55993.68           165.52
## 402                   84.95  34    56379.30           230.36
## 403                   39.34  43    31215.88           148.93
## 404                   87.23  29    51015.11           202.12
## 405                   57.24  52    46473.14           117.35
```

```
## 406                   81.58  41    55479.62          248.16
## 407                   56.34  50    68713.70          139.02
## 408                   48.73  27    34191.23          142.04
## 409                   51.68  49    51067.54          258.62
## 410                   35.34  45    46693.76          152.86
## 411                   48.09  33    19345.36          180.42
## 412                   78.68  29    66225.72          208.05
## 413                   68.82  20    38609.20          205.64
## 414                   56.99  40    37713.23          108.15
## 415                   86.63  39    63764.28          209.64
## 416                   41.18  43    41866.55          129.25
## 417                   71.03  32    57846.68          120.85
## 418                   72.92  29    69428.73          217.10
## 419                   77.14  24    60283.98          184.88
## 420                   60.70  43    79332.33          192.60
## 421                   34.30  41    53167.68          160.74
## 422                   83.71  45    64564.07          220.48
## 423                   53.38  35    60803.37          120.06
## 424                   58.03  31    28387.42          129.33
## 425                   43.59  36    58849.77          132.31
## 426                   60.07  42    65963.37          120.75
## 427                   54.43  37    75180.20          154.74
## 428                   81.99  33    61270.14          230.90
## 429                   60.53  29    56759.48          123.28
## 430                   84.69  31    46160.63          231.85
## 431                   88.72  32    43870.51          211.87
## 432                   88.89  35    50439.49          218.80
## 433                   69.58  43    28028.74          255.07
## 434                   85.23  36    64238.71          212.92
## 435                   83.55  39    65816.38          221.18
## 436                   56.66  42    72684.44          139.42
## 437                   56.39  27    38817.40          248.12
## 438                   76.24  27    63976.44          214.42
## 439                   57.64  36    37212.54          110.25
## 440                   78.18  23    52691.79          167.67
## 441                   46.04  32    65499.93          147.92
## 442                   79.40  35    63966.72          236.87
## 443                   36.44  39    52400.88          147.64
## 444                   53.14  38    49111.47          109.00
## 445                   32.84  40    41232.89          171.72
## 446                   73.72  32    52140.04          256.40
## 447                   38.10  34    60641.09          214.38
## 448                   73.93  44    74180.05          218.22
## 449                   51.87  50    51869.87          119.65
## 450                   77.69  22    48852.58          169.88
## 451                   43.41  28    59144.02          160.73
## 452                   55.92  24    33951.63          145.08
## 453                   80.67  34    58909.36          239.76
## 454                   83.42  25    49850.52          183.42
## 455                   82.12  52    28679.93          201.15
## 456                   66.17  33    69869.66          238.45
## 457                   43.01  35    48347.64          127.37
## 458                   80.05  25    45959.86          219.94
## 459                   64.88  42    70005.51          129.80
```

```
## 460                    79.82  26   51512.66            223.28
## 461                    48.03  40   25598.75            134.60
## 462                    32.99  45   49282.87            177.46
## 463                    74.88  27   67240.25            175.17
## 464                    36.49  52   42136.33            196.61
## 465                    88.04  45   62589.84            191.17
## 466                    45.70  33   67384.31            151.12
## 467                    82.38  35   25603.93            159.60
## 468                    52.68  23   39616.00            149.20
## 469                    65.59  47   28265.81            121.81
## 470                    65.65  25   63879.72            224.92
## 471                    43.84  36   70592.81            167.42
## 472                    67.69  37   76408.19            216.57
## 473                    78.37  24   55015.08            207.27
## 474                    81.46  29   51636.12            231.54
## 475                    47.48  31   29359.20            141.34
## 476                    75.15  33   71296.67            219.49
## 477                    78.76  24   46422.76            219.98
## 478                    44.96  50   52802.00            132.71
## 479                    39.56  41   59243.46            143.13
## 480                    39.76  28   35350.55            196.83
## 481                    57.11  22   59677.64            207.17
## 482                    83.26  40   70225.60            187.76
## 483                    69.42  25   65791.17            213.38
## 484                    50.60  30   34191.13            129.88
## 485                    46.20  37   51315.38            119.30
## 486                    66.88  35   62790.96            119.47
## 487                    83.97  40   66291.67            158.42
## 488                    76.56  30   68030.18            213.75
## 489                    35.49  48   43974.49            159.77
## 490                    80.29  31   49457.48            244.87
## 491                    50.19  40   33987.27            117.30
## 492                    59.12  33   28210.03            124.54
## 493                    59.88  30   75535.14            193.63
## 494                    59.70  28   49158.50            120.25
## 495                    67.80  30   39809.69            117.75
## 496                    81.59  35   65826.53            223.16
## 497                    81.10  29   61172.07            216.49
## 498                    41.70  39   42898.21            126.95
## 499                    73.94  27   68333.01            173.49
## 500                    58.35  37   70232.95            132.63
## 501                    51.56  46   63102.19            124.85
## 502                    79.81  37   51847.26            253.17
## 503                    66.17  26   63580.22            228.70
## 504                    58.21  37   47575.44            105.94
## 505                    66.12  49   39031.89            113.80
## 506                    80.47  42   70505.06            215.18
## 507                    77.05  31   62161.26            236.64
## 508                    49.99  41   61068.26            121.07
## 509                    80.30  58   49090.51            173.43
## 510                    79.36  33   62330.75            234.72
## 511                    57.86  30   18819.34            166.86
## 512                    70.29  26   62053.37            231.37
## 513                    84.53  33   61922.06            215.18
```

```
## 514                     59.13  44    49525.37             106.04
## 515                     81.51  41    53412.32             250.03
## 516                     42.94  37    56681.65             130.40
## 517                     84.81  32    43299.63             233.93
## 518                     82.79  34    47997.75             132.08
## 519                     59.22  55    39131.53             126.39
## 520                     35.00  40    46033.73             151.25
## 521                     46.61  42    65856.74             136.18
## 522                     63.26  29    54787.37             120.46
## 523                     79.16  32    69562.46             202.90
## 524                     67.94  43    68447.17             128.16
## 525                     79.91  32    62772.42             230.18
## 526                     66.14  41    78092.95             165.27
## 527                     43.65  39    63649.04             138.87
## 528                     59.61  21    60637.62             198.45
## 529                     46.61  52    27241.11             156.99
## 530                     89.37  34    42760.22             162.03
## 531                     65.10  49    59457.52             118.10
## 532                     53.44  42    42907.89             108.17
## 533                     79.53  51    46132.18             244.91
## 534                     91.43  39    46964.11             209.91
## 535                     73.57  30    70377.23             212.38
## 536                     78.76  32    70012.83             208.02
## 537                     76.49  23    56457.01             181.11
## 538                     61.72  26    67279.06             218.49
## 539                     84.53  35    54773.99             236.29
## 540                     72.03  34    70783.94             230.95
## 541                     77.47  36    70510.59             222.91
## 542                     75.65  39    64021.55             247.90
## 543                     78.15  33    72042.85             194.37
## 544                     63.80  38    36037.33             108.70
## 545                     76.59  29    67526.92             211.64
## 546                     42.60  55    55121.65             168.29
## 547                     78.77  28    63497.62             211.83
## 548                     83.40  39    60879.48             235.01
## 549                     79.53  33    61467.33             236.72
## 550                     73.89  35    70495.64             229.99
## 551                     75.80  36    71222.40             224.90
## 552                     81.95  31    64698.58             208.76
## 553                     56.39  58    32252.38             154.23
## 554                     44.73  35    55316.97             127.56
## 555                     38.35  33    47447.89             145.48
## 556                     72.53  37    73474.82             223.93
## 557                     56.20  49    53549.94             114.85
## 558                     79.67  28    58576.12             226.79
## 559                     75.42  26    63373.70             164.25
## 560                     78.64  31    60283.47             235.28
## 561                     67.69  44    37345.34             109.22
## 562                     38.35  41    34886.01             144.69
## 563                     59.52  44    67511.86             251.08
## 564                     62.26  37    77988.71             166.19
## 565                     64.75  36    63001.03             117.66
## 566                     79.97  26    61747.98             185.45
## 567                     47.90  42    48467.68             114.53
```

```
## 568            80.38   30      55130.96          238.06
## 569            64.51   42      79484.80          190.71
## 570            71.28   37      67307.43          246.72
## 571            50.32   40      27964.60          125.65
## 572            72.76   33      66431.87          240.63
## 573            72.80   35      63551.67          249.54
## 574            74.59   23      40135.06          158.35
## 575            46.66   45      49101.67          118.16
## 576            48.86   54      53188.69          134.46
## 577            37.05   39      49742.83          142.81
## 578            81.21   36      63394.41          233.04
## 579            66.89   23      64433.99          208.24
## 580            68.11   38      73884.48          231.21
## 581            69.15   46      36424.94          112.72
## 582            65.72   36      28275.48          120.12
## 583            40.04   27      48098.86          161.58
## 584            68.60   33      68448.94          135.08
## 585            56.16   25      66429.84          164.25
## 586            78.60   46      41768.13          254.59
## 587            78.29   38      57844.96          252.07
## 588            43.83   45      35684.82          129.01
## 589            77.31   32      62792.43          238.10
## 590            39.86   28      51171.23          161.24
## 591            66.77   25      58847.07          141.13
## 592            57.20   42      57739.03          110.66
## 593            73.15   25      64631.22          211.12
## 594            82.07   24      50337.93          193.97
## 595            49.84   38      67781.31          135.24
## 596            43.97   36      68863.95          156.97
## 597            77.25   27      55901.12          231.38
## 598            74.84   37      64775.10          246.44
## 599            83.53   36      67686.16          204.56
## 600            38.63   48      57777.11          222.11
## 601            84.00   48      46868.53          136.21
## 602            52.13   50      40926.93          118.27
## 603            71.83   40      22205.74          135.48
## 604            78.36   24      58920.44          196.77
## 605            50.18   35      63006.14          127.82
## 606            64.67   51      24316.61          138.35
## 607            69.50   26      68348.99          203.84
## 608            65.22   30      66263.37          240.09
## 609            62.06   40      63493.60          116.27
## 610            84.29   30      56984.09          160.33
## 611            32.91   37      51691.55          181.02
## 612            39.50   31      49911.25          148.19
## 613            75.19   31      33502.57          245.76
## 614            76.21   31      65834.97          228.94
## 615            67.76   31      66176.97          242.59
## 616            40.01   53      51463.17          161.77
## 617            52.70   41      41059.64          109.34
## 618            68.41   38      61428.18          259.76
## 619            35.55   39      51593.46          151.18
## 620            74.54   24      57518.73          219.75
## 621            81.75   24      52656.13          190.08
```

```
## 622                    87.85  31   52178.98              210.27
## 623                    60.23  60   46239.14              151.54
## 624                    87.97  35   48918.55              149.25
## 625                    78.17  27   65227.79              192.27
## 626                    67.91  23   55002.05              146.80
## 627                    85.77  27   52261.73              191.78
## 628                    41.16  49   59448.44              150.83
## 629                    53.54  39   47314.45              108.03
## 630                    73.94  26   55411.06              236.15
## 631                    63.43  29   66504.16              236.75
## 632                    84.59  36   47169.14              241.80
## 633                    70.13  31   70889.68              224.98
## 634                    40.19  37   55358.88              136.99
## 635                    58.95  55   56242.70              131.29
## 636                    35.76  51   45522.44              195.07
## 637                    59.36  49   46931.03              110.84
## 638                    91.10  40   55499.69              198.13
## 639                    61.04  41   75805.12              149.21
## 640                    74.06  23   40345.49              225.99
## 641                    64.63  45   15598.29              158.80
## 642                    81.29  28   33239.20              219.72
## 643                    76.07  36   68033.54              235.56
## 644                    75.92  22   38427.66              182.65
## 645                    78.35  46   53185.34              253.48
## 646                    46.14  28   39723.97              137.97
## 647                    44.33  41   43386.07              120.63
## 648                    46.43  28   53922.43              137.20
## 649                    66.04  27   71881.84              199.76
## 650                    84.31  29   47139.21              225.87
## 651                    83.66  38   68877.02              175.14
## 652                    81.25  33   65186.58              222.35
## 653                    85.26  32   55424.24              224.07
## 654                    86.53  46   46500.11              233.36
## 655                    76.44  26   58820.16              224.20
## 656                    52.84  43   28495.21              122.31
## 657                    85.24  31   61840.26              182.84
## 658                    74.71  46   37908.29              258.06
## 659                    82.95  39   69805.70              201.29
## 660                    76.42  26   60315.19              223.16
## 661                    42.04  49   67323.00              182.11
## 662                    46.28  26   50055.33              228.78
## 663                    48.26  50   43573.66              122.45
## 664                    71.03  55   28186.65              150.77
## 665                    81.37  33   66412.04              215.04
## 666                    58.05  32   15879.10              195.54
## 667                    75.00  29   63965.16              230.36
## 668                    79.61  31   58342.63              235.97
## 669                    52.56  31   33147.19              250.36
## 670                    62.18  33   65899.68              126.44
## 671                    77.89  26   64188.50              201.54
## 672                    66.08  61   58966.22              184.23
## 673                    89.21  33   44078.24              210.53
## 674                    49.96  55   60968.62              151.94
## 675                    77.44  28   65620.25              210.39
```

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## 676                    82.58  38    65496.78              225.23
## 677                    39.36  29    52462.04              161.79
## 678                    47.23  38    70582.55              149.80
## 679                    87.85  34    51816.27              153.01
## 680                    65.57  46    23410.75              130.86
## 681                    78.01  26    62729.40              200.71
## 682                    44.15  28    48867.67              141.96
## 683                    43.57  36    50971.73              125.20
## 684                    76.83  28    67990.84              192.81
## 685                    42.06  34    43241.19              131.55
## 686                    76.27  27    60082.66              226.69
## 687                    74.27  37    65180.97              247.05
## 688                    73.27  28    67301.39              216.24
## 689                    74.58  36    70701.31              230.52
## 690                    77.50  28    60997.84              225.34
## 691                    87.16  33    60805.93              197.15
## 692                    87.16  37    50711.68              231.95
## 693                    66.26  47    14548.06              179.04
## 694                    65.15  29    41335.84              117.30
## 695                    68.25  33    76480.16              198.86
## 696                    73.49  38    67132.46              244.23
## 697                    39.19  54    52581.16              173.05
## 698                    80.15  25    55195.61              214.49
## 699                    86.76  28    48679.54              189.91
## 700                    73.88  29    63109.74              233.61
## 701                    58.60  19    44490.09              197.93
## 702                    69.77  54    57667.99              132.27
## 703                    87.27  30    51824.01              204.27
## 704                    77.65  28    66198.66              208.01
## 705                    76.02  40    73174.19              219.55
## 706                    78.84  26    56593.80              217.66
## 707                    71.33  23    31072.44              169.40
## 708                    81.90  41    66773.83              225.47
## 709                    46.89  48    72553.94              176.78
## 710                    77.80  57    43708.88              152.94
## 711                    45.44  43    48453.55              119.27
## 712                    69.96  31    73413.87              214.06
## 713                    87.35  35    58114.30              158.29
## 714                    49.42  53    45465.25              128.00
## 715                    71.27  21    50147.72              216.03
## 716                    49.19  38    61004.51              123.08
## 717                    39.96  35    53898.89              138.52
## 718                    85.01  29    59797.64              192.50
## 719                    68.95  51    74623.27              185.85
## 720                    67.59  45    58677.69              113.69
## 721                    75.71  34    62109.80              246.06
## 722                    43.07  36    60583.02              137.63
## 723                    39.47  43    65576.05              163.48
## 724                    48.22  40    73882.91              214.33
## 725                    76.76  25    50468.36              230.77
## 726                    78.74  27    51409.45              234.75
## 727                    67.47  24    60514.05              225.05
## 728                    81.17  30    57195.96              231.91
## 729                    89.66  34    52802.58              171.23
```

```
## 730            79.60  28   56570.06          227.37
## 731            65.53  19   51049.47          190.17
## 732            61.87  35   66629.61          250.20
## 733            83.16  41   70185.06          194.95
## 734            44.11  41   43111.41          121.24
## 735            56.57  26   56435.60          131.98
## 736            83.91  29   53223.58          222.87
## 737            79.80  28   57179.91          229.88
## 738            71.23  52   41521.28          122.59
## 739            47.23  43   73538.09          210.87
## 740            82.37  30   63664.32          207.44
## 741            43.63  38   61757.12          135.25
## 742            70.90  28   71727.51          190.95
## 743            71.90  29   72203.96          193.29
## 744            62.12  37   50671.60          105.86
## 745            67.35  29   47510.42          118.69
## 746            57.99  50   62466.10          124.58
## 747            66.80  29   59683.16          248.51
## 748            49.13  32   41097.17          120.49
## 749            45.11  58   39799.73          195.69
## 750            54.35  42   76984.21          164.02
## 751            61.82  59   57877.15          151.93
## 752            77.75  31   59047.91          240.64
## 753            70.61  28   72154.68          190.12
## 754            82.72  31   65704.79          179.82
## 755            76.87  36   72948.76          212.59
## 756            65.07  34   73941.91          227.53
## 757            56.93  37   57887.64          111.80
## 758            48.86  35   62463.70          128.37
## 759            36.56  29   42838.29          195.89
## 760            85.73  32   43778.88          147.75
## 761            75.81  40   71157.05          229.19
## 762            72.94  31   74159.69          190.84
## 763            53.63  54   50333.72          126.29
## 764            52.35  25   33293.78          147.61
## 765            52.84  51   38641.20          121.57
## 766            51.58  33   49822.78          115.91
## 767            42.32  29   63891.29          187.09
## 768            55.04  42   43881.73          106.96
## 769            68.58  41   13996.50          171.54
## 770            85.54  27   48761.14          175.43
## 771            71.14  30   69758.31          224.82
## 772            64.38  19   52530.10          180.47
## 773            88.85  40   58363.12          213.96
## 774            66.79  60   60575.99          198.30
## 775            32.60  45   48206.04          185.47
## 776            43.88  54   31523.09          166.85
## 777            56.46  26   66187.58          151.63
## 778            72.18  30   69438.04          225.02
## 779            52.67  44   14775.50          191.26
## 780            80.55  35   68016.90          219.91
## 781            67.85  41   78520.99          202.70
## 782            75.55  36   31998.72          123.71
## 783            80.46  29   56909.30          230.78
```

```
## 784                    82.69  29   61161.29           167.41
## 785                    35.21  39   52340.10           154.00
## 786                    36.37  40   47338.94           144.53
## 787                    74.07  22   50950.24           165.43
## 788                    59.96  33   77143.61           197.66
## 789                    85.62  29   57032.36           195.68
## 790                    40.88  33   48554.45           136.18
## 791                    36.98  31   39552.49           167.87
## 792                    35.49  47   36884.23           170.04
## 793                    56.56  26   68783.45           204.47
## 794                    36.62  32   51119.93           162.44
## 795                    49.35  49   44304.13           119.86
## 796                    75.64  29   69718.19           204.82
## 797                    79.22  27   63429.18           198.79
## 798                    77.05  34   65756.36           236.08
## 799                    66.83  46   77871.75           196.17
## 800                    76.20  24   47258.59           228.81
## 801                    56.64  29   55984.89           123.24
## 802                    53.33  34   44275.13           111.63
## 803                    50.63  50   25767.16           142.23
## 804                    41.84  49   37605.11           139.32
## 805                    53.92  41   25739.09           125.46
## 806                    83.89  28   60188.38           180.88
## 807                    55.32  43   67682.32           127.65
## 808                    53.22  44   44307.18           108.85
## 809                    43.16  35   25371.52           156.11
## 810                    67.51  43   23942.61           127.20
## 811                    43.16  29   50666.50           143.04
## 812                    79.89  30   50356.06           241.38
## 813                    84.25  32   63936.50           170.90
## 814                    74.18  28   69874.18           203.87
## 815                    85.78  34   50038.65           232.78
## 816                    80.96  39   67866.95           225.00
## 817                    36.91  48   54645.20           159.69
## 818                    54.47  23   46780.09           141.52
## 819                    81.98  34   67432.49           212.88
## 820                    79.60  39   73392.28           194.23
## 821                    57.51  38   47682.28           105.71
## 822                    82.30  31   56735.83           232.21
## 823                    73.21  30   51013.37           252.60
## 824                    79.09  32   69481.85           209.72
## 825                    68.47  28   67033.34           226.64
## 826                    83.69  36   68717.00           192.57
## 827                    83.48  31   59340.99           222.72
## 828                    43.49  45   47968.32           124.67
## 829                    66.69  35   48758.92           108.27
## 830                    48.46  49   61230.03           132.38
## 831                    42.51  30   54755.71           144.77
## 832                    42.83  34   54324.73           132.38
## 833                    41.46  42   52177.40           128.98
## 834                    45.99  33   51163.14           124.61
## 835                    68.72  27   66861.67           225.97
## 836                    63.11  34   63107.88           254.94
## 837                    49.21  46   49206.40           115.60
```

```
## 838                     55.77  49    55942.04              117.33
## 839                     44.13  40    33601.84              128.48
## 840                     57.82  46    48867.36              107.56
## 841                     72.46  40    56683.32              113.53
## 842                     61.88  45    38260.89              108.18
## 843                     78.24  23    54106.21              199.29
## 844                     74.61  38    71055.22              231.28
## 845                     89.18  37    46403.18              224.01
## 846                     44.16  42    61690.93              133.42
## 847                     55.74  37    26130.93              124.34
## 848                     88.82  36    58638.75              169.10
## 849                     70.39  32    47357.39              261.52
## 850                     59.05  52    50086.17              118.45
## 851                     78.58  33    51772.58              250.11
## 852                     35.11  35    47638.30              158.03
## 853                     60.39  45    38987.42              108.25
## 854                     81.56  26    51363.16              213.70
## 855                     75.03  34    35764.49              255.57
## 856                     50.87  24    62939.50              190.41
## 857                     82.80  30    58776.67              223.20
## 858                     78.51  25    59106.12              205.71
## 859                     37.65  51    50457.01              161.29
## 860                     83.17  43    54251.78              244.40
## 861                     91.37  45    51920.49              182.65
## 862                     68.25  29    70324.80              220.08
## 863                     81.32  25    52416.18              165.65
## 864                     76.64  39    66217.31              241.50
## 865                     74.06  50    60938.73              246.29
## 866                     39.53  33    40243.82              142.21
## 867                     86.58  32    60151.77              195.93
## 868                     90.75  40    45945.88              216.50
## 869                     67.71  25    63430.33              225.76
## 870                     82.41  36    65882.81              222.08
## 871                     45.82  27    64410.80              171.24
## 872                     76.79  27    55677.12              235.94
## 873                     70.05  33    75560.65              203.44
## 874                     72.19  32    61067.58              250.32
## 875                     77.35  34    72330.57              167.26
## 876                     40.34  29    32549.95              173.75
## 877                     67.39  44    51257.26              107.19
## 878                     68.68  34    77220.42              187.03
## 879                     81.75  43    52520.75              249.45
## 880                     66.03  22    59422.47              217.37
## 881                     47.74  33    22456.04              154.93
## 882                     79.18  31    58443.99              236.96
## 883                     86.81  29    50820.74              199.62
## 884                     41.53  42    67575.12              158.81
## 885                     70.92  39    66522.79              249.81
## 886                     46.84  45    34903.67              123.22
## 887                     44.40  53    43073.78              140.95
## 888                     52.17  44    57594.70              115.37
## 889                     81.45  31    66027.31              205.84
## 890                     54.08  36    53012.94              111.02
## 891                     76.65  31    61117.50              238.43
```

```
## 892                     54.39  20   52563.22          171.90
## 893                     37.74  40   65773.49          190.95
## 894                     69.86  25   50506.44          241.36
## 895                     85.37  36   66262.59          194.56
## 896                     80.99  26   35521.88          207.53
## 897                     78.84  32   62430.55          235.29
## 898                     77.36  41   49597.08          115.79
## 899                     55.46  37   42078.89          108.10
## 900                     35.66  45   46197.59          151.72
## 901                     50.78  51   49957.00          122.04
## 902                     40.47  38   24078.93          203.90
## 903                     45.62  43   53647.81          121.28
## 904                     84.76  30   61039.13          178.69
## 905                     80.64  26   46974.15          221.59
## 906                     75.94  27   53042.51          236.96
## 907                     37.01  50   48826.14          216.01
## 908                     87.18  31   58287.86          193.60
## 909                     56.91  50   21773.22          146.44
## 910                     75.24  24   52252.91          226.49
## 911                     42.84  52   27073.27          182.20
## 912                     67.56  47   50628.31          109.98
## 913                     34.96  42   36913.51          160.49
## 914                     87.46  37   61009.10          211.56
## 915                     41.86  39   53041.77          128.62
## 916                     34.04  34   40182.84          174.88
## 917                     54.96  42   59419.78          113.75
## 918                     87.14  31   58235.21          199.40
## 919                     78.79  32   68324.48          215.29
## 920                     65.56  25   69646.35          181.25
## 921                     81.05  34   54045.39          245.50
## 922                     55.71  37   57806.03          112.52
## 923                     45.48  49   53336.76          129.16
## 924                     47.00  56   50491.45          149.53
## 925                     59.64  51   71455.62          153.12
## 926                     35.98  45   43241.88          150.79
## 927                     72.55  22   58953.01          202.34
## 928                     91.15  38   36834.04          184.98
## 929                     80.53  29   66345.10          187.64
## 930                     82.49  45   38645.40          130.84
## 931                     80.94  36   60803.00          239.94
## 932                     61.76  34   33553.90          114.69
## 933                     63.30  38   63071.34          116.19
## 934                     36.73  34   46737.34          149.79
## 935                     78.41  33   55368.67          248.23
## 936                     83.98  36   68305.91          194.62
## 937                     63.18  45   39211.49          107.92
## 938                     50.60  48   65956.71          135.67
## 939                     32.60  38   40159.20          190.05
## 940                     60.83  19   40478.83          185.46
## 941                     44.72  46   40468.53          123.86
## 942                     78.76  51   66980.27          162.05
## 943                     79.51  39   34942.26          125.11
## 944                     39.30  32   48335.20          145.73
## 945                     64.79  30   42251.59          116.07
```

```
## 946                  89.80  36    57330.43              198.24
## 947                  72.82  34    75769.82              191.82
## 948                  38.65  31    51812.71              154.77
## 949                  59.01  30    75265.96              178.75
## 950                  78.96  50    69868.48              193.15
## 951                  63.99  43    72802.42              138.46
## 952                  41.35  27    39193.45              162.46
## 953                  62.79  36    18368.57              231.87
## 954                  45.53  29    56129.89              141.58
## 955                  51.65  31    58996.56              249.99
## 956                  54.55  44    41547.62              109.04
## 957                  35.66  36    59240.24              172.57
## 958                  69.95  28    56725.47              247.01
## 959                  79.83  29    55764.43              234.23
## 960                  85.35  37    64235.51              161.42
## 961                  56.78  28    39939.39              124.32
## 962                  78.67  26    63319.99              195.56
## 963                  70.09  21    54725.87              211.17
## 964                  60.75  42    69775.75              247.05
## 965                  65.07  24    57545.56              233.85
## 966                  35.25  50    47051.02              194.44
## 967                  37.58  52    51600.47              176.70
## 968                  68.01  25    68357.96              188.32
## 969                  45.08  38    35349.26              125.27
## 970                  63.04  27    69784.85              159.05
## 971                  40.18  29    50760.23              151.96
## 972                  45.17  48    34418.09              132.07
## 973                  50.48  50    20592.99              162.43
## 974                  80.87  28    63528.80              203.30
## 975                  41.88  40    44217.68              126.11
## 976                  39.87  48    47929.83              139.34
## 977                  61.84  45    46024.29              105.63
## 978                  54.97  31    51900.03              116.38
## 979                  71.40  30    72188.90              166.31
## 980                  70.29  31    56974.51              254.65
## 981                  67.26  57    25682.65              168.41
## 982                  76.58  46    41884.64              258.26
## 983                  54.37  38    72196.29              140.77
## 984                  82.79  32    54429.17              234.81
## 985                  66.47  31    58037.66              256.39
## 986                  72.88  44    64011.26              125.12
## 987                  76.44  28    59967.19              232.68
## 988                  63.37  43    43155.19              105.04
## 989                  89.71  48    51501.38              204.40
## 990                  70.96  31    55187.85              256.40
## 991                  35.79  44    33813.08              165.62
## 992                  38.96  38    36497.22              140.67
## 993                  69.17  40    66193.81              123.62
## 994                  64.20  27    66200.96              227.63
## 995                  43.70  28    63126.96              173.01
## 996                  72.97  30    71384.57              208.58
## 997                  51.30  45    67782.17              134.42
## 998                  51.63  51    42415.72              120.37
## 999                  55.55  19    41920.79              187.95
```

```
## 1000                        45.01  26    29875.80              178.35
##                                                 Ad.Topic.Line
## 1               Cloned 5thgeneration orchestration
## 2                Monitored national standardization
## 3                    Organic bottom-line service-desk
## 4                Triple-buffered reciprocal time-frame
## 5                      Robust logistical utilization
## 6                     Sharable client-driven software
## 7                        Enhanced dedicated support
## 8                          Reactive local challenge
## 9                     Configurable coherent function
## 10                Mandatory homogeneous architecture
## 11                    Centralized neutral neural-net
## 12          Team-oriented grid-enabled Local Area Network
## 13                Centralized content-based focus group
## 14                  Synergistic fresh-thinking array
## 15                    Grass-roots coherent extranet
## 16                 Persistent demand-driven interface
## 17                 Customizable multi-tasking website
## 18                        Intuitive dynamic attitude
## 19          Grass-roots solution-oriented conglomeration
## 20                       Advanced 24/7 productivity
## 21                Object-based reciprocal knowledgebase
## 22                  Streamlined non-volatile analyzer
## 23                Mandatory disintermediate utilization
## 24                   Future-proofed methodical protocol
## 25                     Exclusive neutral parallelism
## 26                   Public-key foreground groupware
## 27                  Ameliorated client-driven forecast
## 28                    Monitored systematic hierarchy
## 29                Open-architected impactful productivity
## 30                Business-focused value-added definition
## 31                Programmable asymmetric data-warehouse
## 32                      Digitized static capability
## 33                      Digitized global capability
## 34          Multi-layered 4thgeneration knowledge user
## 35                Synchronized dedicated service-desk
## 36                  Synchronized systemic hierarchy
## 37                        Profound stable product
## 38                   Reactive demand-driven capacity
## 39          Persevering needs-based open architecture
## 40                    Intuitive exuding service-desk
## 41                   Innovative user-facing extranet
## 42                  Front-line intermediate database
## 43                   Persevering exuding system engine
## 44                    Balanced dynamic application
## 45                        Reduced global support
## 46                  Organic leadingedge secured line
## 47                Business-focused encompassing neural-net
## 48                Triple-buffered demand-driven alliance
## 49                Visionary maximized process improvement
## 50                     Centralized 24/7 installation
## 51                      Organized static focus group
## 52                     Visionary reciprocal circuit
```

```
## 53                       Pre-emptive value-added workforce
## 54                             Sharable analyzing alliance
## 55                       Team-oriented encompassing portal
## 56                          Sharable bottom-line solution
## 57                           Cross-group regional website
## 58                                 Organized global model
## 59                         Upgradable asynchronous circuit
## 60                       Phased transitional instruction set
## 61                       Customer-focused empowering ability
## 62                       Front-line heuristic data-warehouse
## 63                            Stand-alone national attitude
## 64                             Focused upward-trending core
## 65                       Streamlined cohesive conglomeration
## 66                             Upgradable optimizing toolset
## 67                             Synchronized user-facing core
## 68                         Organized client-driven alliance
## 69                          Ergonomic multi-state structure
## 70                          Synergized multimedia emulation
## 71                       Customer-focused optimizing moderator
## 72                            Advanced full-range migration
## 73                       De-engineered object-oriented protocol
## 74                       Polarized clear-thinking budgetary management
## 75                       Customizable 6thgeneration knowledge user
## 76                          Seamless object-oriented structure
## 77                                   Seamless real-time array
## 78                       Grass-roots impactful system engine
## 79                               Devolved tangible approach
## 80                            Customizable executive software
## 81                              Progressive analyzing attitude
## 82                              Innovative executive encoding
## 83                          Down-sized uniform info-mediaries
## 84                       Streamlined next generation implementation
## 85                          Distributed tertiary system engine
## 86                          Triple-buffered scalable groupware
## 87                                  Total 5thgeneration encoding
## 88                            Integrated human-resource encoding
## 89                             Phased dynamic customer loyalty
## 90                                 Open-source coherent policy
## 91                                 Down-sized modular intranet
## 92                       Pre-emptive content-based focus group
## 93                       Versatile 4thgeneration system engine
## 94                              Ergonomic full-range time-frame
## 95                               Automated directional function
## 96                              Progressive empowering alliance
## 97                               Versatile homogeneous capacity
## 98                          Function-based optimizing protocol
## 99                                 Up-sized secondary software
## 100                              Seamless holistic time-frame
## 101                             Persevering reciprocal firmware
## 102                          Centralized logistical secured line
## 103                          Innovative background conglomeration
## 104                               Switchable 3rdgeneration hub
## 105                          Polarized 6thgeneration info-mediaries
## 106                               Balanced heuristic approach
```

```
## 107                           Focused 24hour implementation
## 108                         De-engineered mobile infrastructure
## 109                   Customer-focused upward-trending contingency
## 110                          Operative system-worthy protocol
## 111                        User-friendly upward-trending intranet
## 112                       Future-proofed holistic superstructure
## 113                               Extended systemic policy
## 114                            Horizontal hybrid challenge
## 115                              Virtual composite model
## 116                           Switchable mobile framework
## 117                          Focused intangible moderator
## 118                           Balanced actuating moderator
## 119                     Customer-focused transitional strategy
## 120                       Advanced web-enabled standardization
## 121                       Pre-emptive executive knowledgebase
## 122                   Self-enabling holistic process improvement
## 123                       Horizontal client-driven hierarchy
## 124                          Polarized dynamic throughput
## 125                      Devolved zero administration intranet
## 126                     User-friendly asymmetric info-mediaries
## 127                        Cross-platform regional task-force
## 128                     Polarized bandwidth-monitored moratorium
## 129                       Centralized systematic knowledgebase
## 130                    Future-proofed grid-enabled implementation
## 131                        Down-sized well-modulated archive
## 132                        Realigned zero tolerance emulation
## 133                          Versatile transitional monitoring
## 134                   Profound zero administration instruction set
## 135                         User-centric intangible task-force
## 136                         Enhanced system-worthy application
## 137                          Multi-layered user-facing paradigm
## 138                           Customer-focused 24/7 concept
## 139                       Function-based transitional complexity
## 140                   Progressive clear-thinking open architecture
## 141                            Up-sized executive moderator
## 142                     Re-contextualized optimal service-desk
## 143                       Fully-configurable neutral open system
## 144                          Upgradable system-worthy array
## 145                       Ergonomic client-driven application
## 146                         Realigned content-based leverage
## 147                         Decentralized real-time circuit
## 148                           Polarized modular function
## 149                     Enterprise-wide client-driven contingency
## 150                              Diverse modular interface
## 151                            Polarized analyzing concept
## 152                      Multi-channeled asynchronous open system
## 153                  Function-based context-sensitive secured line
## 154                          Adaptive 24hour Graphic Interface
## 155                          Automated coherent flexibility
## 156                            Focused scalable complexity
## 157                          Up-sized incremental encryption
## 158                        Sharable dedicated Graphic Interface
## 159                       Digitized zero administration paradigm
## 160                         Managed grid-enabled standardization
```

```
## 161                       Networked foreground definition
## 162                          Re-engineered exuding frame
## 163                     Horizontal multi-state interface
## 164                                Diverse stable circuit
## 165                          Universal 24/7 implementation
## 166       Customer-focused multi-tasking Internet solution
## 167             Vision-oriented contextually-based extranet
## 168                             Extended local methodology
## 169                     Re-engineered demand-driven capacity
## 170       Customer-focused attitude-oriented instruction set
## 171                           Synergized hybrid time-frame
## 172                        Advanced exuding conglomeration
## 173                      Secured clear-thinking middleware
## 174                      Right-sized value-added initiative
## 175                     Centralized tertiary pricing structure
## 176       Multi-channeled reciprocal artificial intelligence
## 177                  Synergized context-sensitive database
## 178                          Realigned systematic function
## 179                 Adaptive context-sensitive application
## 180                         Networked high-level structure
## 181                     Profit-focused dedicated utilization
## 182                        Stand-alone tangible moderator
## 183                        Polarized tangible collaboration
## 184                     Focused high-level conglomeration
## 185                     Advanced modular Local Area Network
## 186                          Virtual scalable secured line
## 187                     Front-line fault-tolerant intranet
## 188                     Inverse asymmetric instruction set
## 189                     Synchronized leadingedge help-desk
## 190                     Total 5thgeneration standardization
## 191                          Sharable grid-enabled matrix
## 192                        Balanced asynchronous hierarchy
## 193             Monitored object-oriented Graphic Interface
## 194             Cloned analyzing artificial intelligence
## 195                     Persistent homogeneous framework
## 196                     Face-to-face even-keeled website
## 197                     Extended context-sensitive monitoring
## 198                         Exclusive client-driven model
## 199                       Profound executive flexibility
## 200                       Reduced bi-directional strategy
## 201                          Digitized heuristic solution
## 202                     Seamless 4thgeneration contingency
## 203                     Seamless intangible secured line
## 204                             Intuitive radical forecast
## 205       Multi-layered non-volatile Graphical User Interface
## 206             User-friendly client-server instruction set
## 207                          Synchronized multimedia model
## 208                     Face-to-face intermediate approach
## 209                     Assimilated fault-tolerant hub
## 210                     Exclusive disintermediate task-force
## 211                       Managed zero tolerance concept
## 212                          Compatible systemic function
## 213                     Configurable fault-tolerant monitoring
## 214                       Future-proofed coherent hardware
```

```
## 215                     Ameliorated upward-trending definition
## 216                           Front-line tangible alliance
## 217                           Progressive 24hour forecast
## 218                           Self-enabling optimal initiative
## 219       Configurable logistical Graphical User Interface
## 220                     Virtual bandwidth-monitored initiative
## 221                     Multi-tiered human-resource structure
## 222                     Managed upward-trending instruction set
## 223                           Cloned object-oriented benchmark
## 224                     Fundamental fault-tolerant neural-net
## 225                           Phased zero administration success
## 226                     Compatible intangible customer loyalty
## 227                           Distributed 3rdgeneration definition
## 228                     Pre-emptive cohesive budgetary management
## 229                     Configurable multi-state utilization
## 230                           Diverse multi-tasking parallelism
## 231                           Horizontal content-based synergy
## 232                           Multi-tiered maximized archive
## 233                           Diverse executive groupware
## 234                           Synergized cohesive array
## 235                           Versatile dedicated software
## 236                           Stand-alone reciprocal synergy
## 237                           Universal even-keeled analyzer
## 238                           Up-sized tertiary contingency
## 239                           Monitored real-time superstructure
## 240                           Streamlined analyzing initiative
## 241                           Automated static concept
## 242                           Operative stable moderator
## 243                           Up-sized 6thgeneration moratorium
## 244                           Expanded clear-thinking core
## 245                     Polarized attitude-oriented superstructure
## 246                           Networked coherent interface
## 247                           Enhanced homogeneous moderator
## 248                           Seamless full-range website
## 249       Profit-focused attitude-oriented task-force
## 250                           Cross-platform multimedia algorithm
## 251                           Open-source coherent monitoring
## 252                           Streamlined logistical secured line
## 253                           Synchronized stable complexity
## 254                           Synergistic value-added extranet
## 255                           Progressive non-volatile neural-net
## 256                           Persevering tertiary capability
## 257       Enterprise-wide bi-directional secured line
## 258       Organized contextually-based customer loyalty
## 259                           Total directional approach
## 260                           Programmable uniform productivity
## 261                           Robust transitional ability
## 262                           De-engineered fault-tolerant database
## 263                           Managed disintermediate matrices
## 264                           Configurable bottom-line application
## 265                           Self-enabling didactic pricing structure
## 266                           Versatile scalable encryption
## 267       Proactive next generation knowledge user
## 268                           Customizable tangible hierarchy
```

```
## 269                          Visionary asymmetric encryption
## 270                         Intuitive explicit conglomeration
## 271                        Business-focused real-time toolset
## 272                     Organic contextually-based focus group
## 273                          Right-sized asynchronous website
## 274                          Advanced 5thgeneration capability
## 275                             Universal asymmetric archive
## 276                            Devolved responsive structure
## 277                           Triple-buffered regional toolset
## 278                        Object-based executive productivity
## 279                        Business-focused responsive website
## 280                             Visionary analyzing structure
## 281            De-engineered solution-oriented open architecture
## 282                        Customizable modular Internet solution
## 283                         Stand-alone encompassing throughput
## 284                          Customizable zero-defect matrix
## 285                        Managed well-modulated collaboration
## 286                             Universal global intranet
## 287                          Re-engineered real-time success
## 288                       Front-line fresh-thinking open system
## 289                        Digitized contextually-based product
## 290                             Organic interactive support
## 291                           Function-based stable alliance
## 292                           Reactive responsive emulation
## 293                         Exclusive zero tolerance alliance
## 294                           Enterprise-wide local matrices
## 295                         Inverse next generation moratorium
## 296                          Implemented bifurcated workforce
## 297                         Persevering even-keeled help-desk
## 298                       Grass-roots eco-centric instruction set
## 299   Fully-configurable incremental Graphical User Interface
## 300                             Expanded radical software
## 301                         Mandatory 3rdgeneration moderator
## 302                        Enterprise-wide foreground emulation
## 303                       Customer-focused incremental system engine
## 304                          Right-sized multi-tasking solution
## 305                         Vision-oriented optimizing middleware
## 306                         Proactive context-sensitive project
## 307                           Managed eco-centric encoding
## 308                          Visionary multi-tasking alliance
## 309                           Ameliorated tangible hierarchy
## 310                             Extended interactive model
## 311                          Universal bi-directional extranet
## 312                             Enhanced maximized access
## 313                          Upgradable even-keeled challenge
## 314                         Synchronized national infrastructure
## 315                        Re-contextualized systemic time-frame
## 316                          Horizontal national architecture
## 317                          Reactive bi-directional workforce
## 318                          Horizontal transitional challenge
## 319                           Re-engineered neutral success
## 320                       Adaptive contextually-based methodology
## 321                          Configurable dynamic adapter
## 322                        Multi-lateral empowering throughput
```

```
## 323                    Fundamental zero tolerance solution
## 324                       Proactive asymmetric definition
## 325          Pre-emptive zero tolerance Local Area Network
## 326              Self-enabling incremental collaboration
## 327                    Exclusive even-keeled moratorium
## 328                    Reduced incremental productivity
## 329                   Realigned scalable standardization
## 330             Secured scalable Graphical User Interface
## 331            Team-oriented context-sensitive installation
## 332            Pre-emptive systematic budgetary management
## 333            Fully-configurable high-level implementation
## 334                        Profound maximized workforce
## 335             Cross-platform 4thgeneration focus group
## 336             Optional mission-critical functionalities
## 337                        Multi-layered tangible portal
## 338                          Reduced mobile structure
## 339             Enhanced zero tolerance Graphic Interface
## 340                  De-engineered tertiary secured line
## 341           Reverse-engineered well-modulated capability
## 342               Integrated coherent pricing structure
## 343                 Realigned next generation projection
## 344                 Reactive needs-based instruction set
## 345                 User-friendly well-modulated leverage
## 346                 Function-based fault-tolerant model
## 347                 Decentralized needs-based analyzer
## 348                      Phased analyzing emulation
## 349          Multi-layered fresh-thinking process improvement
## 350                 Upgradable directional system engine
## 351                 Persevering eco-centric flexibility
## 352                              Inverse local hub
## 353         Triple-buffered needs-based Local Area Network
## 354                   Centralized multi-state hierarchy
## 355            Public-key non-volatile implementation
## 356                    Synergized coherent interface
## 357                   Horizontal high-level concept
## 358                    Reduced multimedia project
## 359             Object-based modular functionalities
## 360             Polarized multimedia system engine
## 361                  Versatile reciprocal structure
## 362                  Upgradable multi-tasking initiative
## 363         Configurable tertiary budgetary management
## 364                   Adaptive asynchronous attitude
## 365            Face-to-face mission-critical definition
## 366            Inverse zero tolerance customer loyalty
## 367                      Centralized 24hour synergy
## 368             Face-to-face analyzing encryption
## 369             Self-enabling even-keeled methodology
## 370             Function-based optimizing extranet
## 371                 Organic asynchronous hierarchy
## 372             Automated client-driven orchestration
## 373                 Public-key zero-defect analyzer
## 374             Proactive client-server productivity
## 375                   Cloned incremental matrices
## 376         Open-architected system-worthy task-force
```

```
## 377                         Devolved regional moderator
## 378                        Balanced value-added database
## 379              Seamless composite budgetary management
## 380                            Total cohesive moratorium
## 381                       Integrated motivating neural-net
## 382                          Exclusive zero tolerance frame
## 383                            Operative scalable emulation
## 384                        Enhanced asymmetric installation
## 385                     Face-to-face reciprocal methodology
## 386                         Robust responsive collaboration
## 387                               Polarized logistical hub
## 388                        Intuitive zero-defect framework
## 389                             Reactive composite project
## 390                       Upgradable even-keeled hardware
## 391                        Future-proofed responsive matrix
## 392                      Programmable empowering middleware
## 393                         Robust dedicated system engine
## 394                        Public-key mission-critical core
## 395                          Operative actuating installation
## 396              Self-enabling asynchronous knowledge user
## 397                                  Configurable 24/7 hub
## 398                     Versatile responsive knowledge user
## 399                            Managed impactful definition
## 400                       Grass-roots 4thgeneration forecast
## 401                  Focused 3rdgeneration pricing structure
## 402                       Mandatory dedicated data-warehouse
## 403                                Proactive radical support
## 404                      Re-engineered responsive definition
## 405                         Profound optimizing utilization
## 406                              Cloned explicit middleware
## 407                 Multi-channeled mission-critical success
## 408                        Versatile content-based protocol
## 409                       Seamless cohesive conglomeration
## 410                      De-engineered actuating hierarchy
## 411                           Balanced motivating help-desk
## 412                           Inverse high-level capability
## 413                  Cross-platform client-server hierarchy
## 414                              Sharable optimal capacity
## 415                        Face-to-face multimedia success
## 416              Enterprise-wide incremental Internet solution
## 417                         Advanced systemic productivity
## 418                  Customizable mission-critical adapter
## 419                            Horizontal heuristic synergy
## 420                      Multi-tiered multi-state moderator
## 421                   Re-contextualized reciprocal interface
## 422                    Organized demand-driven knowledgebase
## 423                                    Total local synergy
## 424                 User-friendly bandwidth-monitored attitude
## 425          Re-engineered context-sensitive knowledge user
## 426                             Total user-facing hierarchy
## 427            Balanced contextually-based pricing structure
## 428                 Inverse bi-directional knowledge user
## 429                         Networked even-keeled workforce
## 430                      Right-sized transitional parallelism
```

```
## 431              Customer-focused system-worthy superstructure
## 432                      Balanced 4thgeneration success
## 433                      Cross-group value-added success
## 434                      Visionary client-driven installation
## 435              Switchable well-modulated infrastructure
## 436                      Upgradable asymmetric emulation
## 437                      Configurable tertiary capability
## 438                      Monitored dynamic instruction set
## 439                             Robust web-enabled attitude
## 440                      Customer-focused full-range neural-net
## 441        Universal transitional Graphical User Interface
## 442                      User-centric intangible contingency
## 443              Configurable disintermediate throughput
## 444                      Automated web-enabled migration
## 445              Triple-buffered 3rdgeneration migration
## 446              Universal contextually-based system engine
## 447                             Optional secondary access
## 448                      Quality-focused scalable utilization
## 449                      Team-oriented dynamic forecast
## 450                             Horizontal heuristic support
## 451        Customer-focused zero-defect process improvement
## 452                             Focused systemic benchmark
## 453                      Seamless impactful info-mediaries
## 454                             Advanced heuristic firmware
## 455        Fully-configurable client-driven customer loyalty
## 456                             Cross-group neutral synergy
## 457                             Organized 24/7 middleware
## 458                      Networked stable open architecture
## 459                      Customizable systematic service-desk
## 460                      Function-based directional productivity
## 461                                    Networked stable array
## 462                             Phased full-range hardware
## 463                             Organized empowering policy
## 464              Object-based system-worthy superstructure
## 465                             Profound explicit hardware
## 466                      Self-enabling multimedia system engine
## 467                             Polarized analyzing intranet
## 468        Vision-oriented attitude-oriented Internet solution
## 469                      Digitized disintermediate ability
## 470                             Intuitive explicit firmware
## 471                      Public-key real-time definition
## 472                      Monitored content-based implementation
## 473        Quality-focused zero-defect budgetary management
## 474                      Intuitive fresh-thinking moderator
## 475                      Reverse-engineered 24hour hardware
## 476                      Synchronized zero tolerance product
## 477                             Reactive interactive protocol
## 478              Focused fresh-thinking Graphic Interface
## 479                             Ameliorated exuding solution
## 480                      Integrated maximized service-desk
## 481                             Self-enabling tertiary challenge
## 482              Decentralized foreground infrastructure
## 483                             Quality-focused hybrid frame
## 484                             Realigned reciprocal framework
```

```
## 485                      Distributed maximized ability
## 486                         Polarized bifurcated array
## 487                    Progressive asynchronous adapter
## 488                 Business-focused high-level hardware
## 489                 Fully-configurable holistic throughput
## 490             Ameliorated contextually-based collaboration
## 491               Progressive uniform budgetary management
## 492                    Synergistic stable infrastructure
## 493               Reverse-engineered content-based intranet
## 494                  Expanded zero administration attitude
## 495                  Team-oriented 6thgeneration extranet
## 496                 Managed disintermediate capability
## 497                        Front-line dynamic model
## 498                     Innovative regional structure
## 499             Function-based incremental standardization
## 500                    Universal asymmetric workforce
## 501             Business-focused client-driven forecast
## 502                       Realigned global initiative
## 503             Business-focused maximized complexity
## 504                    Open-source global strategy
## 505                 Stand-alone motivating moratorium
## 506                   Grass-roots multimedia policy
## 507                     Upgradable local migration
## 508             Profound bottom-line standardization
## 509                 Managed client-server access
## 510             Cross-platform directional intranet
## 511                    Horizontal modular success
## 512             Vision-oriented multi-tasking success
## 513                 Optional multi-state hardware
## 514             Upgradable heuristic system engine
## 515             Future-proofed modular utilization
## 516             Synergistic dynamic orchestration
## 517                 Multi-layered stable encoding
## 518             Team-oriented zero-defect initiative
## 519                 Polarized 5thgeneration matrix
## 520     Fully-configurable context-sensitive Graphic Interface
## 521             Progressive intermediate throughput
## 522                 Customizable holistic archive
## 523             Compatible intermediate concept
## 524             Assimilated next generation firmware
## 525             Total zero administration software
## 526                 Re-engineered impactful software
## 527             Business-focused background synergy
## 528         Future-proofed coherent budgetary management
## 529                 Ergonomic methodical encoding
## 530             Compatible dedicated productivity
## 531                 Up-sized real-time methodology
## 532             Up-sized next generation architecture
## 533                 Managed 6thgeneration hierarchy
## 534                     Organic motivating model
## 535             Pre-emptive transitional protocol
## 536         Managed attitude-oriented Internet solution
## 537                 Public-key asynchronous matrix
## 538                 Grass-roots systematic hardware
```

```
## 539                     User-centric composite contingency
## 540                  Up-sized bi-directional infrastructure
## 541                          Assimilated actuating policy
## 542                 Organized upward-trending contingency
## 543                             Ergonomic neutral portal
## 544                  Adaptive demand-driven knowledgebase
## 545              Reverse-engineered maximized focus group
## 546                       Switchable analyzing encryption
## 547     Public-key intangible Graphical User Interface
## 548                          Advanced local task-force
## 549                        Profound well-modulated array
## 550              Multi-channeled asymmetric installation
## 551            Multi-layered fresh-thinking neural-net
## 552                       Distributed cohesive migration
## 553                      Programmable uniform website
## 554                         Object-based neutral policy
## 555                            Horizontal global leverage
## 556              Synchronized grid-enabled moratorium
## 557                        Adaptive uniform capability
## 558                      Total grid-enabled application
## 559                         Optional regional throughput
## 560                  Integrated client-server definition
## 561                      Fundamental methodical support
## 562                    Synergistic reciprocal attitude
## 563                    Managed 5thgeneration time-frame
## 564              Vision-oriented uniform knowledgebase
## 565                      Multi-tiered stable leverage
## 566            Down-sized explicit budgetary management
## 567              Cross-group human-resource time-frame
## 568                Business-focused holistic benchmark
## 569                      Virtual 5thgeneration neural-net
## 570                   Distributed scalable orchestration
## 571                        Realigned intangible benchmark
## 572                         Virtual impactful algorithm
## 573            Public-key solution-oriented focus group
## 574                        Phased clear-thinking encoding
## 575            Grass-roots mission-critical emulation
## 576                      Proactive encompassing paradigm
## 577                    Automated object-oriented firmware
## 578          User-friendly content-based customer loyalty
## 579                        Universal incremental array
## 580                            Reactive national success
## 581                        Automated multi-state toolset
## 582                        Managed didactic flexibility
## 583                Cross-platform neutral system engine
## 584                          Focused high-level frame
## 585                        Seamless motivating approach
## 586                        Enhanced systematic adapter
## 587                Networked regional Local Area Network
## 588                      Total human-resource flexibility
## 589                Assimilated homogeneous service-desk
## 590                      Ergonomic zero tolerance encoding
## 591                Cross-platform zero-defect structure
## 592                        Innovative maximized groupware
```

```
## 593                          Face-to-face executive encryption
## 594                          Monitored local Internet solution
## 595                            Phased hybrid superstructure
## 596                         User-friendly grid-enabled analyzer
## 597                          Pre-emptive neutral contingency
## 598                         User-friendly impactful time-frame
## 599                 Customizable methodical Graphical User Interface
## 600                   Cross-platform logistical pricing structure
## 601                            Inverse discrete extranet
## 602                        Open-source even-keeled database
## 603                          Diverse background ability
## 604                  Multi-tiered foreground Graphic Interface
## 605                         Customizable hybrid system engine
## 606                         Horizontal incremental website
## 607                         Front-line systemic capability
## 608                   Fully-configurable foreground solution
## 609                            Digitized radical array
## 610                   Team-oriented transitional methodology
## 611                 Future-proofed fresh-thinking conglomeration
## 612                  Operative multi-tasking Graphic Interface
## 613                           Implemented discrete frame
## 614                          Ameliorated exuding encryption
## 615                         Programmable high-level benchmark
## 616                        Sharable multimedia conglomeration
## 617                       Team-oriented high-level orchestration
## 618                          Grass-roots empowering paradigm
## 619                   Robust object-oriented Graphic Interface
## 620                          Switchable secondary ability
## 621                     Open-architected web-enabled benchmark
## 622                         Compatible scalable emulation
## 623                          Seamless optimal contingency
## 624                       Secured secondary superstructure
## 625                            Automated mobile model
## 626                     Re-engineered non-volatile neural-net
## 627                     Implemented disintermediate attitude
## 628                      Configurable interactive contingency
## 629                          Optimized systemic capability
## 630                    Front-line non-volatile implementation
## 631                            Ergonomic 24/7 solution
## 632                  Integrated grid-enabled budgetary management
## 633                        Profit-focused systemic support
## 634                       Right-sized system-worthy project
## 635                  Proactive actuating Graphical User Interface
## 636                         Versatile optimizing projection
## 637                       Universal multi-state system engine
## 638                         Secured intermediate approach
## 639                     Operative didactic Local Area Network
## 640                        Phased content-based middleware
## 641                 Triple-buffered high-level Internet solution
## 642             Synergized well-modulated Graphical User Interface
## 643                   Implemented bottom-line implementation
## 644                      Monitored context-sensitive initiative
## 645                       Pre-emptive client-server open system
## 646                  Seamless bandwidth-monitored knowledge user
```

```
## 647                          Ergonomic empowering frame
## 648         Reverse-engineered background Graphic Interface
## 649                    Synergistic non-volatile analyzer
## 650                         Object-based optimal solution
## 651                            Profound dynamic attitude
## 652                       Enhanced system-worthy toolset
## 653                  Reverse-engineered dynamic function
## 654                      Networked responsive application
## 655                       Distributed intangible database
## 656                         Multi-tiered mobile encoding
## 657               Optional contextually-based flexibility
## 658                          Proactive local focus group
## 659                    Customer-focused impactful success
## 660                   Open-source optimizing parallelism
## 661                          Organic logistical adapter
## 662                 Stand-alone eco-centric system engine
## 663              User-centric intermediate knowledge user
## 664                      Programmable didactic capacity
## 665                   Enhanced regional conglomeration
## 666                    Total asynchronous architecture
## 667                 Secured upward-trending benchmark
## 668                  Customizable value-added project
## 669                   Integrated interactive support
## 670                      Reactive impactful challenge
## 671                      Switchable multi-state success
## 672                   Synchronized multi-tasking ability
## 673              Fundamental clear-thinking knowledgebase
## 674                 Multi-layered user-facing parallelism
## 675                      Front-line incremental access
## 676         Open-architected zero administration secured line
## 677               Mandatory disintermediate info-mediaries
## 678           Implemented context-sensitive Local Area Network
## 679                    Digitized interactive initiative
## 680                 Implemented asynchronous application
## 681                     Focused multi-state workforce
## 682                     Proactive secondary monitoring
## 683                 Front-line upward-trending groupware
## 684            Quality-focused 5thgeneration orchestration
## 685                    Multi-layered secondary software
## 686                    Total coherent superstructure
## 687                  Monitored executive architecture
## 688                        Front-line multi-state hub
## 689            Configurable mission-critical algorithm
## 690                 Face-to-face responsive alliance
## 691                       Reduced holistic help-desk
## 692                   Pre-emptive content-based frame
## 693                     Optional full-range projection
## 694                    Expanded value-added emulation
## 695                  Organic well-modulated database
## 696                    Organic 3rdgeneration encryption
## 697                 Stand-alone empowering benchmark
## 698                  Monitored intermediate circuit
## 699                 Object-based leadingedge complexity
## 700                 Digitized zero-defect implementation
```

```
## 701                         Configurable impactful firmware
## 702                        Face-to-face dedicated flexibility
## 703                     Fully-configurable 5thgeneration circuit
## 704                         Configurable impactful capacity
## 705                       Distributed leadingedge orchestration
## 706                         Persistent even-keeled application
## 707                        Optimized attitude-oriented initiative
## 708                         Multi-channeled 3rdgeneration model
## 709                         Polarized mission-critical structure
## 710                         Virtual executive implementation
## 711                       Enhanced intermediate standardization
## 712                         Realigned tangible collaboration
## 713                             Cloned dedicated analyzer
## 714                       Ameliorated well-modulated complexity
## 715                      Quality-focused bi-directional throughput
## 716                      Versatile solution-oriented secured line
## 717                      Phased leadingedge budgetary management
## 718                         Devolved exuding Local Area Network
## 719                      Front-line bandwidth-monitored capacity
## 720                      User-centric solution-oriented emulation
## 721                             Phased hybrid intranet
## 722                    Monitored zero administration collaboration
## 723                       Team-oriented systematic installation
## 724                              Inverse national core
## 725                         Secured uniform instruction set
## 726                       Quality-focused zero tolerance matrices
## 727                         Multi-tiered heuristic strategy
## 728                             Optimized static archive
## 729                        Advanced didactic conglomeration
## 730                        Synergistic discrete middleware
## 731                       Pre-emptive client-server installation
## 732                      Multi-channeled attitude-oriented toolset
## 733                         Decentralized 24hour approach
## 734                         Organic next generation matrix
## 735                       Multi-channeled non-volatile website
## 736                          Distributed bifurcated challenge
## 737                     Customizable zero-defect Internet solution
## 738                    Self-enabling zero administration neural-net
## 739                       Optimized upward-trending productivity
## 740                        Open-architected system-worthy ability
## 741                       Quality-focused maximized extranet
## 742                         Centralized client-driven workforce
## 743                        De-engineered intangible flexibility
## 744                         Re-engineered intangible software
## 745                     Sharable secondary Graphical User Interface
## 746                        Innovative homogeneous alliance
## 747                           Diverse leadingedge website
## 748                        Optimized intermediate help-desk
## 749                           Sharable reciprocal project
## 750                         Proactive interactive service-desk
## 751                    Open-architected needs-based customer loyalty
## 752                         Multi-lateral motivating circuit
## 753                         Assimilated encompassing portal
## 754                         Cross-group global orchestration
```

```
## 755                         Down-sized bandwidth-monitored core
## 756                               Monitored explicit hierarchy
## 757                             Reactive demand-driven strategy
## 758                                Universal empowering adapter
## 759                       Team-oriented bi-directional secured line
## 760                                Stand-alone radical throughput
## 761                                Inverse zero-defect capability
## 762                           Multi-tiered real-time implementation
## 763                                 Front-line zero-defect array
## 764                              Mandatory 4thgeneration structure
## 765                         Synergistic asynchronous superstructure
## 766                          Vision-oriented system-worthy forecast
## 767                                Digitized radical architecture
## 768                          Quality-focused optimizing parallelism
## 769                                  Exclusive discrete firmware
## 770                          Right-sized solution-oriented benchmark
## 771                                 Assimilated stable encryption
## 772                              Configurable dynamic secured line
## 773                                    Cloned optimal leverage
## 774                      Decentralized client-driven data-warehouse
## 775                            Multi-tiered interactive neural-net
## 776                               Enhanced methodical database
## 777                             Ameliorated leadingedge help-desk
## 778                         De-engineered attitude-oriented projection
## 779                         Persevering 5thgeneration knowledge user
## 780                               Extended grid-enabled hierarchy
## 781                               Reactive tangible contingency
## 782                        Decentralized attitude-oriented interface
## 783                               Mandatory coherent groupware
## 784                            Fully-configurable eco-centric frame
## 785                         Advanced disintermediate data-warehouse
## 786                        Quality-focused zero-defect data-warehouse
## 787                           Cross-group non-volatile secured line
## 788                                Expanded modular application
## 789                         Triple-buffered systematic info-mediaries
## 790                               Networked non-volatile synergy
## 791                        Fully-configurable clear-thinking throughput
## 792                            Front-line actuating functionalities
## 793                                Compatible composite project
## 794                       Customer-focused solution-oriented software
## 795                                    Inverse stable synergy
## 796                            Pre-emptive well-modulated moderator
## 797                               Intuitive modular system engine
## 798                              Centralized value-added hierarchy
## 799                                 Assimilated hybrid initiative
## 800                            Optimized coherent Internet solution
## 801                             Versatile 6thgeneration parallelism
## 802                            Configurable impactful productivity
## 803                                Operative full-range forecast
## 804                             Operative secondary functionalities
## 805                           Business-focused transitional solution
## 806                    Ameliorated intermediate Graphical User Interface
## 807                                  Managed 24hour analyzer
## 808                             Horizontal client-server database
```

```
## 809                          Implemented didactic support
## 810                            Digitized homogeneous core
## 811                             Robust holistic application
## 812                          Synergized uniform hierarchy
## 813                 Pre-emptive client-driven secured line
## 814                       Front-line even-keeled website
## 815                 Persistent fault-tolerant service-desk
## 816                          Integrated leadingedge frame
## 817               Ameliorated coherent open architecture
## 818                 Vision-oriented bifurcated contingency
## 819                            Up-sized maximized model
## 820                          Organized global flexibility
## 821            Re-engineered zero-defect open architecture
## 822                          Balanced executive definition
## 823                 Networked logistical info-mediaries
## 824                          Optimized multimedia website
## 825                            Focused coherent success
## 826                 Robust context-sensitive neural-net
## 827               Intuitive zero administration adapter
## 828                          Synchronized full-range portal
## 829                          Integrated encompassing support
## 830                          Devolved human-resource circuit
## 831                 Grass-roots transitional flexibility
## 832                 Vision-oriented methodical support
## 833                          Integrated impactful groupware
## 834                 Face-to-face methodical intranet
## 835                          Fundamental tangible moratorium
## 836                 Balanced mobile Local Area Network
## 837                             Realigned 24/7 core
## 838                 Fully-configurable high-level groupware
## 839                          Ameliorated discrete extranet
## 840                          Centralized asynchronous portal
## 841                          Enhanced tertiary utilization
## 842                 Balanced disintermediate conglomeration
## 843                          Sharable value-added solution
## 844                          Networked impactful framework
## 845                          Public-key impactful neural-net
## 846                          Innovative interactive portal
## 847                 Networked asymmetric infrastructure
## 848                          Assimilated discrete strategy
## 849                          Phased 5thgeneration open system
## 850                          Upgradable logistical flexibility
## 851                 Centralized user-facing service-desk
## 852                          Extended analyzing emulation
## 853                          Front-line methodical utilization
## 854                          Open-source scalable protocol
## 855                          Networked local secured line
## 856                 Programmable empowering orchestration
## 857                          Enhanced systemic benchmark
## 858            Focused web-enabled Graphical User Interface
## 859                          Automated stable help-desk
## 860                          Managed national hardware
## 861                 Re-engineered composite moratorium
## 862                          Phased fault-tolerant definition
```

```
## 863                      Pre-emptive next generation Internet solution
## 864                          Reverse-engineered web-enabled support
## 865                               Horizontal intermediate monitoring
## 866                      Intuitive transitional artificial intelligence
## 867           Business-focused asynchronous budgetary management
## 868                             Decentralized methodical capability
## 869                              Synergized intangible open system
## 870                              Stand-alone logistical service-desk
## 871                                  Expanded full-range synergy
## 872                             Open-architected intangible strategy
## 873                                 Diverse directional hardware
## 874                                   Balanced discrete approach
## 875                                  Total bi-directional success
## 876                           Object-based motivating instruction set
## 877                             Realigned intermediate application
## 878                              Sharable encompassing database
## 879                                 Progressive 24/7 definition
## 880                             Pre-emptive next generation strategy
## 881                              Open-source 5thgeneration leverage
## 882                             Open-source holistic productivity
## 883                             Multi-channeled scalable moratorium
## 884                                Optional tangible productivity
## 885                                  Up-sized intangible circuit
## 886                        Virtual homogeneous budgetary management
## 887                                  Phased zero-defect portal
## 888                                 Optional modular throughput
## 889                        Triple-buffered human-resource complexity
## 890                            Innovative cohesive pricing structure
## 891                             Function-based executive moderator
## 892                              Digitized content-based circuit
## 893                                 Balanced uniform algorithm
## 894                            Triple-buffered foreground encryption
## 895                            Front-line system-worthy flexibility
## 896                      Centralized clear-thinking Graphic Interface
## 897                             Optimized 5thgeneration moratorium
## 898                          Fully-configurable asynchronous firmware
## 899                              Exclusive systematic algorithm
## 900                               Exclusive cohesive intranet
## 901                  Vision-oriented asynchronous Internet solution
## 902                                 Sharable 5thgeneration access
## 903                      Monitored homogeneous artificial intelligence
## 904                                 Monitored 24/7 moratorium
## 905                             Vision-oriented real-time framework
## 906                                Future-proofed stable function
## 907                      Secured encompassing Graphical User Interface
## 908                              Right-sized logistical middleware
## 909                                Team-oriented executive core
## 910                      Vision-oriented next generation solution
## 911                                Enhanced optimizing website
## 912                            Reduced background data-warehouse
## 913                                Right-sized mobile initiative
## 914                             Synergized grid-enabled framework
## 915                                 Open-source stable paradigm
## 916                      Reverse-engineered context-sensitive emulation
```

```
## 917                        Public-key disintermediate emulation
## 918                          Up-sized bifurcated capability
## 919                        Stand-alone background open system
## 920                         Stand-alone explicit orchestration
## 921                        Configurable asynchronous application
## 922                         Upgradable 4thgeneration portal
## 923                         Networked client-server solution
## 924       Public-key bi-directional Graphical User Interface
## 925               Re-contextualized human-resource success
## 926                 Front-line fresh-thinking installation
## 927                         Balanced empowering success
## 928                              Robust uniform framework
## 929                      Sharable upward-trending support
## 930                          Assimilated multi-state paradigm
## 931                          Self-enabling local strategy
## 932                            Open-source local approach
## 933                         Polarized intangible encoding
## 934                 Multi-lateral attitude-oriented adapter
## 935                      Multi-lateral 24/7 Internet solution
## 936                         Profit-focused secondary portal
## 937                      Reactive upward-trending migration
## 938          Customer-focused fault-tolerant implementation
## 939                      Customizable homogeneous contingency
## 940            Versatile next generation pricing structure
## 941                    Cross-group systemic customer loyalty
## 942             Face-to-face modular budgetary management
## 943                         Proactive non-volatile encryption
## 944                      Decentralized bottom-line help-desk
## 945                     Visionary mission-critical application
## 946                 User-centric attitude-oriented adapter
## 947                          User-centric discrete success
## 948                         Total even-keeled architecture
## 949                      Focused multimedia implementation
## 950                      Stand-alone well-modulated product
## 951               Ameliorated bandwidth-monitored contingency
## 952                         Streamlined homogeneous analyzer
## 953                              Total coherent archive
## 954                         Front-line neutral alliance
## 955                     Virtual context-sensitive support
## 956                         Re-engineered optimal policy
## 957                         Implemented uniform synergy
## 958                      Horizontal even-keeled challenge
## 959                          Innovative regional groupware
## 960               Exclusive multi-state Internet solution
## 961                        Mandatory empowering focus group
## 962                          Proactive 5thgeneration frame
## 963                    Automated full-range Internet solution
## 964             Fully-configurable systemic productivity
## 965                      Multi-lateral multi-state encryption
## 966                              Intuitive global website
## 967       Exclusive disintermediate Internet solution
## 968                         Ameliorated actuating workforce
## 969                      Synergized clear-thinking protocol
## 970                      Triple-buffered multi-state complexity
```

```
## 971                             Enhanced intangible portal
## 972                       Down-sized background groupware
## 973                         Switchable real-time product
## 974                           Ameliorated local workforce
## 975                            Streamlined exuding adapter
## 976                  Business-focused user-facing benchmark
## 977                  Reactive bi-directional standardization
## 978                              Virtual bifurcated portal
## 979                       Integrated 3rdgeneration monitoring
## 980                          Balanced responsive open system
## 981                     Focused incremental Graphic Interface
## 982                                  Secured 24hour policy
## 983                            Up-sized asymmetric firmware
## 984                  Distributed fault-tolerant service-desk
## 985                  Vision-oriented human-resource synergy
## 986                     Customer-focused explicit challenge
## 987                  Synchronized human-resource moderator
## 988                  Open-architected full-range projection
## 989                              Versatile local forecast
## 990                       Ameliorated user-facing help-desk
## 991                          Enterprise-wide tangible model
## 992                  Versatile mission-critical application
## 993                         Extended leadingedge solution
## 994                          Phased zero tolerance extranet
## 995                          Front-line bifurcated ability
## 996                          Fundamental modular algorithm
## 997                          Grass-roots cohesive monitoring
## 998                            Expanded intangible solution
## 999                     Proactive bandwidth-monitored policy
## 1000                           Virtual 5thgeneration emulation
##                               City Male
## 1            Wrightburgh    0
## 2              West Jodi    1
## 3               Davidton    0
## 4         West Terrifurt    1
## 5           South Manuel    0
## 6              Jamieberg    1
## 7            Brandonstad    0
## 8       Port Jefferybury    1
## 9             West Colin    1
## 10            Ramirezton    1
## 11       West Brandonton    0
## 12      East Theresashire    1
## 13         West Katiefurt    1
## 14             North Tara    0
## 15           West William    0
## 16          New Travistown    1
## 17          West Dylanberg    0
## 18            Pruittmouth    0
## 19            Jessicastad    1
## 20             Millertown    1
## 21        Port Jacqueline    1
## 22             Lake Nicole    1
## 23              South John    0
```

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```
## 24            Pamelamouth    1
## 25           Harperborough    0
## 26       Port Danielleberg    1
## 27         West Jeremyside    1
## 28          South Cathyfurt    0
## 29              Palmerside    0
## 30            West Guybury    0
## 31           Phelpschester    1
## 32        Lake Melindamouth    1
## 33      North Richardburgh    1
## 34             Port Cassie    0
## 35              New Thomas    1
## 36               Johnstad    0
## 37          West Aprilport    1
## 38              Kellytown    0
## 39            Charlesport    1
## 40           Millerchester    0
## 41         Mackenziemouth    0
## 42            Zacharystad    0
## 43            North Joshua    1
## 44               Bowenview    0
## 45              Jamesberg    0
## 46      Lake Cassandraport    1
## 47              New Sharon    1
## 48               Johnport    0
## 49           Hamiltonfort    1
## 50        West Christopher    0
## 51            Hollandberg    1
## 52               Odomville    0
## 53     East Samanthashire    1
## 54          South Lauraton    1
## 55           Amandahaven    0
## 56             Thomasview    0
## 57              Garciaside    0
## 58        Port Sarahshire    0
## 59            Port Gregory    0
## 60          Brendachester    0
## 61                Lake Amy    0
## 62         Lake Annashire    1
## 63              Smithburgh    0
## 64         North Leonmouth    1
## 65              Robertfurt    0
## 66            Jasminefort    1
## 67         Jensenborough    0
## 68           Bradleyburgh    0
## 69              New Sheila    1
## 70            North Regina    0
## 71             Davidmouth    0
## 72         New Michaeltown    0
## 73             East Tammie    1
## 74             Wilcoxport    1
## 75       East Michaelmouth    1
## 76        East Tiffanyport    0
## 77            Ramirezhaven    1
```

```
## 78              Cranemouth    1
## 79             Lake Edward    1
## 80         Lake Conniefurt    0
## 81        East Shawnchester  1
## 82             West Joseph    1
## 83      Lake Christopherfurt  0
## 84         East Tylershire    0
## 85               Sharpberg    0
## 86             Lake Dustin    0
## 87           North Kristine    0
## 88              Grahamberg    1
## 89                New Tina    0
## 90               Nelsonfurt    1
## 91          Christopherport   0
## 92          Port Sarahhaven   0
## 93          Bradleyborough    1
## 94               Whiteport    1
## 95             New Theresa    1
## 96                Wongland    0
## 97             Williammouth    1
## 98         Williamsborough    0
## 99           North Michael    0
## 100        Benjaminchester    1
## 101        Hernandezville    0
## 102            Youngburgh    1
## 103        Wallacechester    0
## 104          Sanchezmouth    1
## 105        Bradshawborough    0
## 106              Amyhaven    1
## 107            Marcushaven    1
## 108               Erinton    0
## 109             Hughesport    0
## 110               Johnstad    0
## 111          New Lucasburgh   0
## 112           Michelleside    1
## 113             Andersonton    0
## 114              New Rachel    1
## 115              Port Susan    1
## 116         West Angelabury    1
## 117  Port Christopherborough  0
## 118           Phillipsbury    1
## 119              Millerside    0
## 120            Lake Jessica    0
## 121             Lopezmouth    1
## 122               Johnsport    0
## 123           South Ronald    0
## 124            South Daniel    0
## 125            Suzannetown    0
## 126                Lisaberg    0
## 127              Brianfurt    0
## 128             Stewartbury    0
## 129         Benjaminchester    0
## 130      North Wesleychester  0
## 131        East Michelleberg  0
```

```
## 132             Port Eric   0
## 133           Timothyfurt   0
## 134          Port Jeffrey   0
## 135            Guzmanland   0
## 136          East Michele   1
## 137             East John   0
## 138            Lesliebury   1
## 139          Patriciahaven 1
## 140          Ashleychester 1
## 141          Lake Josetown 0
## 142            Debraburgh   1
## 143         New Debbiestad  1
## 144            West Shaun   1
## 145         Kimberlyhaven   0
## 146         Port Lawrence   1
## 147          West Ricardo   1
## 148             Lake Jose   1
## 149           Heatherberg   0
## 150          South George   0
## 151           Tinachester   1
## 152             Port Jodi   0
## 153          Jonathantown   1
## 154            Sylviaview   0
## 155       East Timothyport  1
## 156          West Roytown   1
## 157             Codyburgh   0
## 158         Port Erikhaven  1
## 159        Port Chasemouth  1
## 160           Ramirezside   0
## 161        East Michaeltown 1
## 162          West Courtney  1
## 163       West Michaelhaven 0
## 164            Walshhaven   0
## 165        East Rachelview  0
## 166            Curtisport   0
## 167             Frankbury   0
## 168           Timothytown   1
## 169          Samanthaland   1
## 170        South Jennifer   0
## 171          Kyleborough   1
## 172           North Randy   1
## 173       South Daniellefort 0
## 174            Dianashire   0
## 175             East Eric   0
## 176           Hammondport   0
## 177             Jacobstad   0
## 178         Hernandezfort   0
## 179             Joneston    1
## 180       New Jeffreychester 0
## 181          East Stephen   0
## 182         Turnerchester   0
## 183            Youngfort    0
## 184            Ingramberg   1
## 185        South Denisefurt  0
```

```
## 186          Port Melissaberg   0
## 187              Bernardton   1
## 188             Port Mathew   1
## 189              Aliciatown   0
## 190              Josephstad   0
## 191            West Ericfurt   0
## 192            New Brendafurt   0
## 193               Port Julie   1
## 194          South Tiffanyton   1
## 195          North Elizabeth   1
## 196               Kentmouth   0
## 197              West Casey   1
## 198               East Henry   1
## 199                Hollyfurt   1
## 200               North Anna   0
## 201             Port Destiny   0
## 202                 Ianmouth   1
## 203          North Johntown   1
## 204              Hannahside   1
## 205              Wilsonburgh   0
## 206     North Russellborough   0
## 207             Murphymouth   0
## 208             Carterburgh   1
## 209                 Penatown   0
## 210               Joechester   1
## 211                East Paul   1
## 212          Hartmanchester   0
## 213             Mcdonaldfort   1
## 214           North Mercedes   1
## 215               Taylorberg   0
## 216              Hansenmouth   0
## 217                Bradyfurt   1
## 218       West Jessicahaven   0
## 219            Davilachester   0
## 220          North Ricardotown   0
## 221              Melissafurt   0
## 222            East Brianberg   0
## 223              Millerbury   0
## 224              Garciaview   0
## 225             Townsendfurt   0
## 226              Williamstad   0
## 227              West Connor   0
## 228              West Justin   0
## 229              Robertbury   0
## 230            New Tinamouth   0
## 231               Turnerview   1
## 232             Reneechester   1
## 233           West Tinashire   0
## 234                Jamesfurt   0
## 235               New Nancy   1
## 236                Lisamouth   1
## 237              Harveyport   0
## 238               Ramosstad   0
## 239          North Kevinside   0
```

```
## 240                Haleview   1
## 241           Christinetown   0
## 242              New Michael   1
## 243                Jonesland   1
## 244             North Shannon  0
## 245             New Sonialand  1
## 246               Port Jason   1
## 247             East Barbara   1
## 248             Port Erinberg  1
## 249              Petersonfurt  0
## 250             New Lindaberg  0
## 251             West Russell   0
## 252               South Adam   1
## 253           North Tracyport  1
## 254               Brownport    1
## 255             Port Crystal   0
## 256               Masonhaven   0
## 257             Derrickhaven   0
## 258                Olsonstad   1
## 259               New Brandy   0
## 260         South Jasminebury  0
## 261             East Timothy   0
## 262             Charlottefort  0
## 263           Lake Beckyburgh  1
## 264         West Lindseybury   0
## 265              West Alyssa   0
## 266           Lake Craigview   1
## 267               Lake David   0
## 268               Bruceburgh   0
## 269           South Lauratown  1
## 270               Port Robin   0
## 271             Jacksonburgh   1
## 272                Erinmouth   1
## 273           Port Aliciabury  0
## 274         Port Whitneyhaven  0
## 275              Jeffreyshire  0
## 276                  Tinaton   0
## 277           North Loriburgh  0
## 278                 Wendyton   1
## 279           Lake Jacqueline  1
## 280         North Christopher  1
## 281             Alexanderfurt  0
## 282              West Pamela   0
## 283              West Amanda   0
## 284             South Tomside  0
## 285                Bethburgh   1
## 286                Jamiefort   1
## 287              Garciamouth   0
## 288              West Brenda   0
## 289               South Kyle   0
## 290                Combsstad   0
## 291           Lake Allenville  0
## 292             Greenechester  0
## 293                Jordantown  1
```

```
## 294          Gravesport   0
## 295          South Troy   1
## 296        Lake Patrick   1
## 297           Millerland   0
## 298    Port Jessicamouth   0
## 299            Paulport   0
## 300           Clineshire   1
## 301          Cynthiaside   0
## 302            Port Juan   0
## 303         Michellefort   0
## 304    Port Angelamouth   1
## 305         Jessicahaven   0
## 306         North Daniel   1
## 307             New Juan   0
## 308              Amyfurt   0
## 309         Harrishaven   0
## 310          Roberttown   0
## 311         Jeremyshire   1
## 312            Birdshire   0
## 313          New Amanda   0
## 314          Curtisview   1
## 315        Jacksonmouth   0
## 316         North April   0
## 317          Hayesmouth   0
## 318         South Corey   1
## 319           Juliaport   0
## 320       Port Paultown   0
## 321    East Vincentstad   0
## 322        Kimberlytown   0
## 323           New Steve   1
## 324         New Johnberg   0
## 325            Shawstad   0
## 326         New Rebecca   0
## 327        Jeffreyburgh   1
## 328            Faithview   0
## 329       Richardsontown   0
## 330       Port Brookeland   0
## 331   East Christopherbury   0
## 332   Port Christinemouth   0
## 333         South Meghan   1
## 334             Hessstad   1
## 335        Rhondaborough   1
## 336          Lewismouth   1
## 337             New Paul   0
## 338          Lake Angela   1
## 339        East Graceland   1
## 340             Hartport   0
## 341    East Yvonnechester   0
## 342          Burgessside   0
## 343        Hurleyborough   0
## 344          Garychester   1
## 345        East Kevinbury   1
## 346        Contrerasshire   1
## 347            Erikville   0
```

```
## 348           Robertsonburgh    1
## 349              Karenton       0
## 350       Port Kathleenfort     0
## 351            Lake Adrian       0
## 352             New Sheila       1
## 353             Mollyport        0
## 354             Sandraland       1
## 355            Charlenetown      0
## 356            Luischester       1
## 357        South Johnnymouth     0
## 358            Hannaport         0
## 359            East Anthony      0
## 360         West Daleborough     0
## 361            Morrismouth       1
## 362        North Andrewstad      1
## 363            Wrightburgh       1
## 364             West Tanya       1
## 365             Novaktown        1
## 366            Timothymouth      1
## 367            Robertmouth       1
## 368           Stephenborough     0
## 369           Lake Kurtmouth     0
## 370            Lauraburgh        1
## 371            Rogerburgh        0
## 372             Davidside        1
## 373            West Thomas       0
## 374          Andersonchester    0
## 375         North Ronaldshire   1
## 376             Greghaven        1
## 377            Jordanmouth       1
## 378            Meyersstad        0
## 379            Michelleside      0
## 380           South Robert       1
## 381             New Tyler        0
## 382            Jordanshire       1
## 383             Reyesland        0
## 384          New Traceystad      1
## 385             Port Brian       0
## 386           Lake Courtney      0
## 387          Samuelborough       1
## 388          Christinehaven      1
## 389            Thomasstad        1
## 390            Kristintown       0
## 391             New Wanda        1
## 392             Mariebury        0
## 393         Christopherville     1
## 394            New Jasmine       0
## 395             Lopezberg        1
## 396            Jenniferstad      1
## 397         West Eduardotown     1
## 398             Davisfurt        0
## 399            Bakerhaven        1
## 400             Paulshire        1
## 401             West Jane        1
```

```
## 402              Lake Brian    0
## 403            Alvaradoport    0
## 404              Lake Kevin    0
## 405           Richardsonland   1
## 406           East Sheriville   0
## 407          Port Michealburgh  1
## 408              Monicaview    0
## 409               Katieport    0
## 410          East Brittanyville  0
## 411           West Travismouth   0
## 412              Leonchester    0
## 413              Ramirezland    1
## 414                Brownton    0
## 415           New Jessicaport   1
## 416            New Denisebury    1
## 417               Keithtown    0
## 418           Port Melissastad   1
## 419              Janiceview    1
## 420                Mataberg    1
## 421           West Melaniefurt   1
## 422              Millerfort    1
## 423             Alexanderview   1
## 424               South Jade    0
## 425               Lake Susan    1
## 426       South Vincentchester   1
## 427            Williamsmouth    1
## 428              Taylorport    0
## 429             Williamsport    0
## 430               Emilyfurt    1
## 431               East John    1
## 432          East Deborahhaven   1
## 433           Port Katelynview   0
## 434               Paulhaven    1
## 435            Elizabethmouth    1
## 436               Lake Jesus    0
## 437           North Tylerland    1
## 438               Munozberg    0
## 439            North Maryland    1
## 440              West Barbara    0
## 441            Andrewborough    0
## 442              New Gabriel    0
## 443            Port Patrickton   1
## 444               West Julia    1
## 445            New Keithburgh    0
## 446             Richardsland    1
## 447         North Aaronchester   1
## 448          Lake Matthewland    0
## 449               Kevinberg    0
## 450               Morganfort    1
## 451               Lovemouth    0
## 452             Taylorhaven    0
## 453              Jamesville    0
## 454             East Toddfort    1
## 455               East Dana    1
```

```
## 456              West Lucas   0
## 457              Butlerfort   0
## 458               Lindaside   1
## 459       West Chloeborough   1
## 460                Jayville   1
## 461             East Lindsey   1
## 462             Masseyshire   0
## 463                Sarahton   1
## 464               Ryanhaven   1
## 465        Lake Deborahburgh   1
## 466        New Williammouth   1
## 467               Port Blake   0
## 468             West Richard   1
## 469             Brandymouth   0
## 470             Sandraville   1
## 471            Port Jessica   0
## 472        Lake Jasonchester   0
## 473             Pearsonfort   0
## 474              Sellerstown   0
## 475                   Yuton   0
## 476               Smithtown   1
## 477               Joanntown   1
## 478              South Peter   1
## 479           Port Mitchell   1
## 480             Pottermouth   1
## 481        Lake Jonathanview   1
## 482                Alanview   1
## 483               Carterport   0
## 484        New Daniellefort   1
## 485               Welchshire   0
## 486             Russellville   1
## 487               West Lisa   1
## 488               Greentown   0
## 489             Timothyport   0
## 490              Teresahaven   1
## 491       Lake Stephenborough   0
## 492                 Silvaton   0
## 493         West Michaelstad   1
## 494              Florestown   0
## 495                  New Jay   1
## 496         North Lisachester   0
## 497               Port Stacy   1
## 498               Jensenton   0
## 499          North Alexandra   0
## 500               Rivasland   0
## 501             Helenborough   0
## 502               Garnerberg   0
## 503            North Anaport   0
## 504               Pattymouth   0
## 505       South Alexisborough   0
## 506            East Jennifer   1
## 507                 Hallfort   0
## 508       New Charleschester   0
## 509          East Breannafurt   0
```

```
## 510            East Susanland   1
## 511               Estesfurt     0
## 512              Shirleyfort     1
## 513              Douglasview     1
## 514               South Lisa     1
## 515                Kingshire     0
## 516             Rebeccamouth     1
## 517                Brownbury     1
## 518               South Aaron    0
## 519              North Andrew     1
## 520              South Walter     1
## 521             Catherinefort    0
## 522                East Donna     1
## 523               East Timothy    1
## 524             North Kimberly    0
## 525        South Stephanieport  1
## 526        North Isabellaville  0
## 527           North Aaronburgh  0
## 528                Port James     1
## 529               Danielview     0
## 530               Port Stacey     1
## 531            West Kevinfurt    1
## 532             Lake Jennifer    1
## 533                Reyesfurt     0
## 534           West Carmenfurt    1
## 535        North Stephanieberg  0
## 536              East Valerie    1
## 537               Sherrishire    0
## 538               Port Daniel     0
## 539                Brownview     0
## 540                 Greerton     1
## 541             Hatfieldshire    1
## 542                Brianabury     1
## 543                New Maria     0
## 544                 Colebury     1
## 545                Calebberg     0
## 546                 Lake Ian     0
## 547                Gomezport     0
## 548                Shaneland     0
## 549               East Aaron     0
## 550             Dustinborough    1
## 551          East Michaelland    0
## 552               East Connie     1
## 553              West Shannon     0
## 554            North Lauraland    1
## 555          Port Christopher    1
## 556         South Patrickfort    0
## 557            East Georgeside    1
## 558              Charlesbury     0
## 559               Millertown     1
## 560               South Renee     1
## 561          South Jackieberg    0
## 562                Loriville     1
## 563               Amandaland     1
```

```
## 564          West Robertside    0
## 565          North Sarashire    0
## 566               Port Maria    1
## 567           East Jessefort    0
## 568             Port Anthony    0
## 569              Edwardmouth    1
## 570           Dustinchester    1
## 571               Rochabury    0
## 572             Williamsport    1
## 573               Austinland    0
## 574              Lake Gerald    1
## 575               Wrightview    0
## 576               Perryburgh    0
## 577               Tracyhaven    1
## 578          South Jaimeview    0
## 579             Sandersland    1
## 580    South Meredithmouth    0
## 581        Richardsonshire    0
## 582           Kimberlymouth    0
## 583            Meghanchester    0
## 584               Tammyshire    0
## 585              Millerbury    1
## 586      Lake Elizabethside    1
## 587            Villanuevaton    0
## 588                Greerport    0
## 589          North Garyhaven    0
## 590               East Sharon    0
## 591            Johnstonmouth    0
## 592        East Heatherside    0
## 593              Lake Patrick    1
## 594          Richardsonmouth    0
## 595            Jenniferhaven    1
## 596                Boyerberg    1
## 597              Port Elijah    1
## 598              Knappburgh    1
## 599             New Dawnland    0
## 600            Chapmanmouth    0
## 601               Robertside    1
## 602     West Raymondmouth    1
## 603               Costaburgh    1
## 604             Kristineberg    1
## 605             Sandrashire    1
## 606             Andersonfurt    1
## 607                Tranland    0
## 608             Michaelland    1
## 609        East Rachaelfurt    1
## 610            Lake Johnbury    1
## 611            Elizabethstad    0
## 612                West Brad    1
## 613            Johnstonshire    1
## 614             Lake Timothy    1
## 615              Anthonyfurt    0
## 616            East Brettton    0
## 617              New Matthew    1
```

```
## 618       Christopherchester   0
## 619              Westshire     0
## 620             Alexisland     0
## 621           Kevinchester     1
## 622      New Patriciashire     1
## 623             Port Brenda    1
## 624          Port Brianfort    1
## 625            Portermouth     1
## 626           Hubbardmouth     1
## 627             South Brian    1
## 628          Hendrixmouth     1
## 629             Julietown     0
## 630              Lukeport     1
## 631             New Shane     1
## 632          Lake Jillville    1
## 633            Johnsonfort    0
## 634            Adamsbury      0
## 635            East Maureen    1
## 636       North Angelastad    0
## 637            Amandafort     0
## 638           Michaelmouth    1
## 639            Ronaldport     0
## 640          Port Davidland   0
## 641           Isaacborough    1
## 642            Lake Michael    0
## 643      West Michaelshire    0
## 644         Port Calvintown   0
## 645            Parkerhaven    0
## 646             Markhaven     1
## 647           Estradashire    0
## 648             Brianland     1
## 649          Cassandratown    0
## 650         West Dannyberg     0
## 651      East Debraborough    0
## 652           Frankchester    1
## 653              Lisafort     1
## 654           Colemanshire    0
## 655             Troyville     1
## 656             Hobbsbury     0
## 657         Harrisonmouth     1
## 658        Port Eugeneport    1
## 659            Karenmouth     0
## 660           Brendaburgh     1
## 661       New Christinatown    0
## 662           Jacksonstad     1
## 663         South Margaret     1
## 664         Port Georgebury   0
## 665         New Jessicaport    0
## 666            Sanderstown    1
## 667              Perezland    1
## 668             Luisfurt      0
## 669          New Karenberg    1
## 670           West Leahton     0
## 671            West Sharon     0
```

```
## 672         Klineside    1
## 673       Lake Cynthia   0
## 674  South Cynthiashire  1
## 675         Lake Jacob   0
## 676      West Samantha   1
## 677         Jeremybury   1
## 678        Blevinstown   1
## 679       Meyerchester   0
## 680        Reginamouth   0
## 681        Donaldshire   1
## 682        Salazarbury   1
## 683     Lake Joshuafurt  1
## 684         Wintersfort  0
## 685         Jamesmouth   0
## 686         Laurieside   1
## 687        Andrewmouth   1
## 688        West Angela   1
## 689         East Carlos  0
## 690        Kennedyfurt   1
## 691         Blairville   0
## 692      East Donnatown  1
## 693        Matthewtown   1
## 694        Brandonbury   0
## 695      New Jamestown   1
## 696        Mosleyburgh   0
## 697          Leahside   0
## 698      West Wendyland  0
## 699    Lawrenceborough   0
## 700       Kennethview   0
## 701      West Mariafort  1
## 702     Port Sherrystad  0
## 703   West Melissashire  1
## 704        Pamelamouth   0
## 705         Lesliefort   0
## 706          Shawnside  1
## 707       Josephmouth   0
## 708         Garciatown   0
## 709         Chaseshire   1
## 710        Destinyfurt   0
## 711           Mezaton   0
## 712         New Kayla   1
## 713        Carsonshire   1
## 714    Jacquelineshire   1
## 715     South Blakestad  1
## 716         North Mark   0
## 717        Kingchester   1
## 718          Evansfurt   0
## 719     South Adamhaven  1
## 720     Brittanyborough  0
## 721        Barbershire   0
## 722       East Ericport  1
## 723       Crawfordfurt   1
## 724        Turnerville   0
## 725         Kylieview   1
```

```
## 726        West Zacharyborough    0
## 727               Watsonfort    1
## 728                   Dayton    1
## 729              Nicholasport    1
## 730               Whitneyfort    1
## 731                Coffeytown    1
## 732            North Johnside    1
## 733              Robinsonland    0
## 734                Lake David    1
## 735            West Ericaport    0
## 736                  Haleberg    0
## 737          West Michaelport    1
## 738              Ericksonmouth    0
## 739                  Yangside    1
## 740               Estradafurt    0
## 741                 Frankport    1
## 742                 Port Juan    0
## 743              Williamsside    1
## 744               Johnsonview    1
## 745                East Heidi    0
## 746             New Angelview    0
## 747          Lake Brandonview    0
## 748                Morganport    0
## 749                 Browntown    0
## 750               Lake Hailey    0
## 751                 Olsonside    1
## 752                   Coxhaven    1
## 753                Meaganfort    0
## 754          North Monicaville    0
## 755                Mullenside    0
## 756                Princebury    1
## 757               Bradleyside    0
## 758             Elizabethbury    1
## 759                 West Ryan    0
## 760                 New Tammy    1
## 761               Sanchezland    0
## 762                 Rogerland    0
## 763               Vanessaview    1
## 764              Jessicashire    1
## 765             Melissachester    1
## 766               Johnsontown    0
## 767            New Joshuaport    1
## 768              Hernandezside    1
## 769          New Williamville    1
## 770              Gilbertville    1
## 771                Newmanberg    0
## 772                West Alice    1
## 773                Cannonbury    0
## 774                Shelbyport    1
## 775                 New Henry    0
## 776               Dustinmouth    1
## 777                South Lisa    0
## 778                 Lisamouth    0
## 779             New Hollyberg    0
```

```
## 780        Port Brittanyville   0
## 781              East Ronald     1
## 782         South Davidmouth     1
## 783                Carterton     0
## 784             Rachelhaven      1
## 785              New Timothy      1
## 786        North Jessicaville    1
## 787                 Joneston      1
## 788               Staceyfort     0
## 789         South Dianeshire     0
## 790             West Shannon      1
## 791              Micheletown      1
## 792        North Brittanyburgh   0
## 793              Port Jasmine     1
## 794               New Sabrina     1
## 795        Lake Charlottestad    0
## 796         West Rhondamouth     1
## 797              North Debra      1
## 798            Villanuevastad    0
## 799          North Jeremyport    1
## 800               Lake Susan     1
## 801                Lake John      1
## 802             Courtneyfort     1
## 803               Tammymouth     0
## 804             Lake Vanessa     0
## 805              Lake Amanda     1
## 806               Mariemouth     1
## 807       Port Douglasborough    0
## 808           Port Aprilville    0
## 809              Williamsport    1
## 810               Lake Faith     0
## 811               Wendyville     1
## 812              Angelhaven      1
## 813                 New Sean     1
## 814                Lake Lisa     0
## 815              Valerieland     0
## 816               New Travis      1
## 817           North Samantha     0
## 818              Holderville     0
## 819             Patrickmouth     0
## 820        Lake Deannaborough    0
## 821             Jeffreymouth     0
## 822              Davieshaven     0
## 823         Lake Jessicaville    1
## 824          Hernandezchester    1
## 825         North Kennethside    0
## 826              Shelbyport     0
## 827             Williamport      1
## 828                Smithside     0
## 829             Vanessastad     0
## 830               Lisamouth      1
## 831         Lake Rhondaburgh     1
## 832         Cunninghamhaven      1
## 833              Robertstown      1
```

```
## 834           South Mark   1
## 835     New Taylorburgh   0
## 836       Port Karenfurt   1
## 837           Carterland   0
## 838           East Shawn   1
## 839     West Derekmouth   1
## 840           Brandiland   1
## 841     Cervantesshire   0
## 842     North Debrashire   0
## 843         Deannaville   0
## 844     East Christopher   1
## 845         Rickymouth   1
## 846         Port Dennis   1
## 847       Lake Michelle   1
## 848       East Johnport   0
## 849         Sabrinaview   1
## 850         Kristinfurt   1
## 851         Chapmanland   1
## 852     North Jonathan   1
## 853       Port Christina   1
## 854           Juanport   1
## 855           East Mike   0
## 856     North Angelatown   0
## 857         West Steven   1
## 858           Riggsstad   1
## 859           Davidview   1
## 860   Port Kevinborough   1
## 861         Lawsonshire   1
## 862     Wagnerchester   0
## 863         Daisymouth   0
## 864       North Daniel   1
## 865   Port Jacquelinestad   1
## 866         New Teresa   1
## 867         Henryfort   1
## 868         Lake Joseph   0
## 869     Daviesborough   1
## 870     North Brandon   0
## 871           Adamside   1
## 872         Wademouth   0
## 873     North Raymond   0
## 874       Randolphport   1
## 875     East Troyhaven   0
## 876       Clarkborough   0
## 877         Josephberg   0
## 878   Lake Jenniferton   1
## 879         Lake Jose   0
## 880       Ashleymouth   0
## 881         Henryland   1
## 882       Lake Danielle   0
## 883         Joshuaburgh   1
## 884     South Jeanneport   0
## 885         New Nathan   1
## 886         Jonesshire   0
## 887         Mariahview   1
```

```
## 888             New Julianberg    1
## 889               Randyshire    1
## 890                Philipberg    1
## 891               West Dennis    0
## 892              Richardshire    1
## 893                Lake James    0
## 894              Austinborough    0
## 895              Alexandrafort    1
## 896               Melissastad    1
## 897              Gonzalezburgh    1
## 898              Port Jennifer    0
## 899                Chrismouth    0
## 900                 Port Beth    0
## 901                West David    0
## 902              Fraziershire    0
## 903                Robertfurt    0
## 904              South Pamela    0
## 905            North Laurenview    0
## 906               Campbellstad    1
## 907             Port Derekberg    0
## 908               West Andrew    0
## 909                West Randy    0
## 910           South Christopher    0
## 911          Lake Michellebury    1
## 912                Zacharyton    0
## 913                West James    1
## 914                Millerview    1
## 915               Hawkinsbury    1
## 916              Elizabethport    1
## 917               West Amanda    1
## 918                 Wadestad    1
## 919              Mauriceshire    1
## 920             West Arielstad    1
## 921                 Adamsstad    0
## 922                Lake James    1
## 923              Blairborough    1
## 924              New Marcusbury    0
## 925                Evansville    1
## 926            Huffmanchester    0
## 927               New Cynthia    0
## 928               Joshuamouth    0
## 929             West Benjamin    0
## 930               Williamsfort    0
## 931              North Tiffany    0
## 932                Edwardsport    0
## 933              Lake Evantown    0
## 934               South Henry    1
## 935              Harmonhaven    1
## 936             West Gregburgh    0
## 937                Hansenland    0
## 938          Port Michaelmouth    0
## 939                Tylerport    0
## 940                West Lacey    1
## 941          North Jenniferburgh    1
```

```
## 942        South Davidhaven    0
## 943       North Charlesbury    1
## 944            Jonathanland    0
## 945           North Virginia    0
## 946             West Tanner    0
## 947              Jonesmouth    1
## 948              Port Jason    1
## 949           West Annefort    1
## 950               East Jason    0
## 951             North Cassie    0
## 952              Hintonport    1
## 953               New James    1
## 954            North Destiny    0
## 955           Mclaughlinbury    0
## 956      West Gabriellamouth    0
## 957             Alvarezland    0
## 958                New Julie    0
## 959          North Frankstad    1
## 960             Claytonside    1
## 961              Melanieton    0
## 962          Lake Michaelport    0
## 963       East Benjaminville    0
## 964          Garrettborough    1
## 965         Port Raymondfort    0
## 966              Waltertown    0
## 967            Cameronberg    1
## 968             Kaylashire    1
## 969              Fosterside    0
## 970               Davidstad    0
## 971              Lake Tracy    0
## 972            Taylormouth    1
## 973              Dianaville    0
## 974            Collinsburgh    0
## 975             Port Rachel    1
## 976           South Rebecca    1
## 977          Port Joshuafort    1
## 978            Robinsontown    1
## 979                 Beckton    0
## 980          New Frankshire    1
## 981          North Derekville    1
## 982             West Sydney    0
## 983            Lake Matthew    0
## 984          Lake Zacharyfurt    1
## 985            Lindsaymouth    1
## 986               Sarahland    0
## 987              Port Julie    1
## 988           Michaelshire    1
## 989                Sarafurt    1
## 990             South Denise    0
## 991              North Katie    1
## 992             Mauricefurt    1
## 993              New Patrick    0
## 994            Edwardsmouth    1
## 995             Nicholasland    0
```

```
## 996                      Duffystad    1
## 997                     New Darlene    1
## 998                   South Jessica    1
## 999                     West Steven    0
## 1000                     Ronniemouth    0
##                                                               Country           Timestamp
## 1                                                             Tunisia 2016-03-27 00:53:11
## 2                                                               Nauru 2016-04-04 01:39:02
## 3                                                          San Marino 2016-03-13 20:35:42
## 4                                                               Italy 2016-01-10 02:31:19
## 5                                                             Iceland 2016-06-03 03:36:18
## 6                                                              Norway 2016-05-19 14:30:17
## 7                                                             Myanmar 2016-01-28 20:59:32
## 8                                                           Australia 2016-03-07 01:40:15
## 9                                                             Grenada 2016-04-18 09:33:42
## 10                                                              Ghana 2016-07-11 01:42:51
## 11                                                              Qatar 2016-03-16 20:19:01
## 12                                                             Burundi 2016-05-08 08:10:10
## 13                                                               Egypt 2016-06-03 01:14:41
## 14                                            Bosnia and Herzegovina 2016-04-20 21:49:22
## 15                                                            Barbados 2016-03-24 09:31:49
## 16                                                               Spain 2016-03-09 03:41:30
## 17                                             Palestinian Territory 2016-01-30 19:20:41
## 18                                                         Afghanistan 2016-05-02 07:00:58
## 19   British Indian Ocean Territory (Chagos Archipelago) 2016-02-13 07:53:55
## 20                                                 Russian Federation 2016-02-27 04:43:07
## 21                                                            Cameroon 2016-01-05 07:52:48
## 22                                                            Cameroon 2016-03-18 13:22:35
## 23                                                             Burundi 2016-05-20 08:49:33
## 24                                                               Korea 2016-03-23 09:43:43
## 25                                                             Tokelau 2016-06-13 17:27:09
## 26                                                              Monaco 2016-05-27 15:25:52
## 27                                                              Tuvalu 2016-02-08 10:46:14
## 28                                                              Greece 2016-07-19 08:32:10
## 29                                               British Virgin Islands 2016-04-14 05:08:35
## 30                                         Bouvet Island (Bouvetoya) 2016-01-27 12:38:16
## 31                                                                Peru 2016-07-02 20:23:15
## 32                                                               Aruba 2016-03-01 22:13:37
## 33                                                            Maldives 2016-07-15 05:05:14
## 34                                                             Senegal 2016-01-14 14:00:09
## 35                                                            Dominica 2016-03-15 03:12:25
## 36                                                          Luxembourg 2016-04-12 03:26:39
## 37                                                          Montenegro 2016-04-07 15:18:10
## 38                                                             Ukraine 2016-02-09 05:28:18
## 39                                                         Saint Helena 2016-05-07 17:11:49
## 40                                                             Liberia 2016-03-11 06:49:10
## 41                                                 Russian Federation 2016-04-27 09:27:58
## 42                                                             Tunisia 2016-04-16 11:53:43
## 43                                                        Turkmenistan 2016-05-08 15:38:46
## 44                                                         Saint Helena 2016-02-08 00:23:38
## 45                                                               Niger 2016-02-11 13:26:22
## 46                                                        Turkmenistan 2016-02-17 13:16:33
## 47                                                               Qatar 2016-02-26 22:46:43
## 48                                                           Sri Lanka 2016-06-08 18:54:01
```

```
## 49                       Trinidad and Tobago 2016-01-08 09:32:26
## 50                                     Italy 2016-04-25 11:01:54
## 51                     British Virgin Islands 2016-04-04 07:07:46
## 52                             United Kingdom 2016-05-03 21:19:58
## 53                              Guinea-Bissau 2016-01-17 09:31:36
## 54                                 Micronesia 2016-03-02 04:57:51
## 55                                     Turkey 2016-02-14 07:36:58
## 56                                    Croatia 2016-04-07 03:56:16
## 57                                     Israel 2016-02-17 11:42:00
## 58               Svalbard & Jan Mayen Islands 2016-04-10 00:13:47
## 59                                 Azerbaijan 2016-02-14 17:05:15
## 60                                       Iran 2016-05-26 22:49:47
## 61                                    Burundi 2016-04-30 08:07:13
## 62          Saint Vincent and the Grenadines 2016-06-15 05:30:13
## 63                                    Burundi 2016-03-09 14:45:33
## 64                                   Bulgaria 2016-03-31 20:55:22
## 65                            Christmas Island 2016-06-03 00:55:23
## 66                                     Canada 2016-03-10 23:36:03
## 67                                     Rwanda 2016-01-08 00:17:27
## 68                   Turks and Caicos Islands 2016-06-05 22:11:34
## 69                                    Tunisia 2016-01-16 11:35:01
## 70                             Norfolk Island 2016-04-22 20:10:22
## 71                  Bouvet Island (Bouvetoya) 2016-02-01 09:00:55
## 72                   Turks and Caicos Islands 2016-07-07 13:37:34
## 73                               Cook Islands 2016-03-08 00:37:54
## 74                                     Turkey 2016-05-10 17:39:06
## 75                                  Guatemala 2016-04-06 11:24:21
## 76                              Cote d'Ivoire 2016-04-01 16:21:05
## 77                               Faroe Islands 2016-01-05 04:18:46
## 78                                      Qatar 2016-05-20 21:31:24
## 79                                    Ireland 2016-02-03 07:59:16
## 80                                    Ukraine 2016-02-17 21:55:29
## 81                                    Moldova 2016-01-30 16:10:04
## 82                                  Nicaragua 2016-05-15 14:41:49
## 83                                 Montserrat 2016-01-05 17:56:52
## 84                                Timor-Leste 2016-04-19 07:34:28
## 85                  Bouvet Island (Bouvetoya) 2016-03-15 15:49:14
## 86                                Puerto Rico 2016-06-12 15:25:44
## 87                   Central African Republic 2016-07-01 04:41:57
## 88                                  Venezuela 2016-05-08 12:12:04
## 89                                  Australia 2016-03-14 23:13:11
## 90                          Wallis and Futuna 2016-05-25 00:19:57
## 91                                     Jersey 2016-05-13 11:51:10
## 92                                Puerto Rico 2016-02-20 20:47:05
## 93                                      Samoa 2016-05-22 20:49:37
## 94                                     Greece 2016-04-10 02:02:36
## 95 Antarctica (the territory South of 60 deg S) 2016-02-28 06:41:44
## 96                                    Albania 2016-07-08 21:18:32
## 97                                  Hong Kong 2016-04-19 15:14:58
## 98                                  Lithuania 2016-01-08 22:47:10
## 99                                      Egypt 2016-03-28 08:46:26
## 100                                Bangladesh 2016-07-02 14:57:53
## 101                             Western Sahara 2016-07-03 09:22:30
## 102                                    Serbia 2016-06-01 09:27:34
```

```
## 103                                           Maldives 2016-07-09 14:55:36
## 104                                     Czech Republic 2016-02-09 22:04:54
## 105                                           Guernsey 2016-06-10 11:31:33
## 106                                           Tanzania 2016-02-14 03:50:52
## 107                                             Bhutan 2016-07-05 17:17:49
## 108                                   Christmas Island 2016-04-28 05:50:25
## 109                                             Guinea 2016-04-03 05:10:31
## 110                                         Micronesia 2016-03-09 14:57:11
## 111                                         Madagascar 2016-01-16 23:37:51
## 112                                            Lebanon 2016-07-03 04:33:41
## 113                                            Eritrea 2016-03-14 06:46:14
## 114                                             Guyana 2016-01-09 05:44:56
## 115                                Trinidad and Tobago 2016-02-11 04:37:34
## 116                                             Jersey 2016-06-22 07:33:21
## 117                               United Arab Emirates 2016-07-13 16:12:24
## 118                                         Martinique 2016-07-23 11:46:28
## 119                                            Somalia 2016-07-13 04:10:53
## 120                                             Bhutan 2016-06-11 18:32:12
## 121                                             Greece 2016-05-08 12:51:00
## 122                                              Benin 2016-04-07 16:02:02
## 123                                  Papua New Guinea 2016-02-04 13:30:32
## 124                                         Uzbekistan 2016-02-26 19:48:23
## 125                                       South Africa 2016-06-21 13:15:21
## 126                                              Egypt 2016-05-17 04:27:31
## 127                                            Hungary 2016-04-18 15:54:33
## 128                         Falkland Islands (Malvinas) 2016-04-03 10:07:56
## 129                                           Dominica 2016-04-04 21:30:46
## 130                                             Jersey 2016-07-06 16:00:33
## 131                                          Lithuania 2016-05-04 09:00:24
## 132                                       Saint Martin 2016-06-13 18:50:00
## 133                                               Cuba 2016-01-03 16:01:40
## 134              United States Minor Outlying Islands 2016-01-14 00:23:10
## 135                                             Belize 2016-01-12 10:07:29
## 136                                             Belize 2016-04-16 12:09:25
## 137       Antarctica (the territory South of 60 deg S) 2016-05-13 06:09:28
## 138                   Saint Vincent and the Grenadines 2016-03-27 23:59:06
## 139                                             Kuwait 2016-02-03 23:47:56
## 140                                           Thailand 2016-04-18 11:23:05
## 141                                          Gibraltar 2016-02-05 19:06:01
## 142                   Holy See (Vatican City State) 2016-03-21 18:46:41
## 143                                              Korea 2016-06-14 11:59:58
## 144                                        Saint Helena 2016-02-06 23:08:57
## 145                          Turks and Caicos Islands 2016-03-12 01:39:19
## 146                                     Czech Republic 2016-01-26 03:56:18
## 147                                        Netherlands 2016-02-07 08:02:31
## 148                                            Belarus 2016-05-05 07:58:22
## 149                                           Dominica 2016-06-29 02:43:29
## 150                                       South Africa 2016-04-10 19:48:01
## 151                                        New Zealand 2016-02-10 06:37:56
## 152                                               Togo 2016-05-28 20:41:50
## 153                                              Kenya 2016-03-24 06:36:52
## 154                                              Palau 2016-02-12 22:51:08
## 155                                        Timor-Leste 2016-06-10 10:11:00
## 156                                           Cambodia 2016-03-31 10:44:46
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## 157                            Belize 2016-02-14 06:51:43
## 158                              Cuba 2016-01-07 19:16:05
## 159                        Costa Rica 2016-02-04 02:13:52
## 160                     Liechtenstein 2016-05-09 02:58:58
## 161                             Korea 2016-06-23 00:16:02
## 162                           Ukraine 2016-06-20 09:35:02
## 163                            Angola 2016-02-29 12:31:57
## 164                             Nauru 2016-01-17 15:10:31
## 165                 Equatorial Guinea 2016-01-29 03:54:19
## 166                          Mongolia 2016-07-14 12:07:10
## 167     Svalbard & Jan Mayen Islands 2016-01-10 23:14:30
## 168                       Timor-Leste 2016-04-28 18:34:56
## 169                            Brazil 2016-07-06 18:36:01
## 170                              Chad 2016-05-27 06:19:27
## 171                          Portugal 2016-01-25 07:39:41
## 172                            Malawi 2016-05-08 22:47:18
## 173                             Qatar 2016-03-19 14:23:45
## 174                         Singapore 2016-07-23 04:37:05
## 175                            Guinea 2016-06-23 01:22:43
## 176                        Kazakhstan 2016-07-19 18:06:22
## 177                            Kuwait 2016-02-28 18:52:44
## 178                            Rwanda 2016-02-10 06:52:07
## 179                             China 2016-03-27 09:11:10
## 180        Bouvet Island (Bouvetoya) 2016-05-23 02:15:04
## 181                           Vietnam 2016-01-03 03:22:15
## 182                         Guatemala 2016-01-04 21:48:38
## 183                              Peru 2016-05-24 13:30:38
## 184                           Mayotte 2016-02-01 19:42:40
## 185                             Samoa 2016-06-05 13:16:24
## 186                         Singapore 2016-02-04 08:53:37
## 187                           Jamaica 2016-03-24 13:37:53
## 188                           Bahamas 2016-06-02 21:02:22
## 189                            Canada 2016-02-21 07:42:48
## 190                           Algeria 2016-06-26 17:16:26
## 191                              Fiji 2016-01-03 05:34:33
## 192                             Kenya 2016-03-08 18:00:43
## 193                         Argentina 2016-06-19 03:19:44
## 194        Bouvet Island (Bouvetoya) 2016-07-21 21:16:35
## 195                       Philippines 2016-02-12 20:36:40
## 196                           Senegal 2016-05-17 06:14:20
## 197                          Suriname 2016-07-09 11:04:54
## 198                           Liberia 2016-03-27 02:35:29
## 199                              Guam 2016-01-16 08:01:40
## 200              United Arab Emirates 2016-01-21 23:48:29
## 201              Antigua and Barbuda 2016-06-05 00:29:13
## 202                         Argentina 2016-02-13 15:37:36
## 203                           Georgia 2016-05-10 07:22:37
## 204                            Jordan 2016-03-27 03:59:26
## 205                      Saudi Arabia 2016-05-24 18:35:58
## 206                      South Africa 2016-02-11 02:40:02
## 207                           Croatia 2016-04-22 08:31:24
## 208                              Fiji 2016-01-13 02:58:27
## 209                         Australia 2016-06-16 02:01:24
## 210             Sao Tome and Principe 2016-06-27 18:37:04
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## 211                         Fiji 2016-07-03 12:57:03
## 212                       Cyprus 2016-02-03 04:21:14
## 213              Kyrgyz Republic 2016-05-29 21:17:10
## 214                     Pakistan 2016-04-03 21:13:46
## 215                    Seychelles 2016-04-15 11:51:14
## 216                        Samoa 2016-06-21 03:14:41
## 217                     Bulgaria 2016-03-14 14:13:05
## 218                   Mauritania 2016-05-06 21:07:31
## 219               Czech Republic 2016-06-12 17:52:43
## 220                        Chile 2016-01-11 07:36:22
## 221                       Poland 2016-07-02 00:24:22
## 222                      Estonia 2016-03-04 10:13:48
## 223                 Turkmenistan 2016-03-24 09:12:52
## 224                       Latvia 2016-02-14 07:30:24
## 225                         Fiji 2016-04-25 07:30:21
## 226                       Turkey 2016-02-10 19:20:51
## 227                   Kazakhstan 2016-04-23 14:34:38
## 228                      Bahrain 2016-06-18 17:56:32
## 229                     Colombia 2016-07-17 01:58:53
## 230             Brunei Darussalam 2016-04-27 04:28:17
## 231                       Taiwan 2016-04-21 20:29:35
## 232                       Serbia 2016-03-23 06:00:15
## 233     Saint Pierre and Miquelon 2016-07-19 07:59:18
## 234                    Australia 2016-06-26 11:52:18
## 235                         Chad 2016-03-30 23:40:52
## 236                       Norway 2016-03-16 07:59:37
## 237        Turks and Caicos Islands 2016-05-04 00:01:33
## 238                      Finland 2016-07-02 21:22:23
## 239                 South Africa 2016-05-23 21:14:38
## 240                   Martinique 2016-01-29 20:16:54
## 241                  Afghanistan 2016-07-23 14:47:23
## 242                   Micronesia 2016-02-16 09:11:27
## 243   French Southern Territories 2016-06-09 21:43:05
## 244                  Philippines 2016-06-19 09:24:35
## 245                      Algeria 2016-06-06 21:26:51
## 246                   San Marino 2016-01-07 13:25:21
## 247                     Guernsey 2016-04-15 06:08:35
## 248                 Sierra Leone 2016-01-09 03:45:19
## 249                   Tajikistan 2016-02-10 15:23:17
## 250                Liechtenstein 2016-04-24 13:42:15
## 251                      Ecuador 2016-06-12 05:31:19
## 252                  Switzerland 2016-01-05 09:42:22
## 253                      Moldova 2016-03-02 10:07:43
## 254                      Finland 2016-07-21 10:54:35
## 255                       France 2016-01-09 04:53:22
## 256                    Venezuela 2016-01-06 13:20:01
## 257                         Cuba 2016-01-31 04:10:20
## 258                         Peru 2016-06-11 08:38:16
## 259                       Turkey 2016-05-15 20:48:40
## 260                      Albania 2016-06-18 17:23:26
## 261   French Southern Territories 2016-03-17 05:00:12
## 262            Papua New Guinea 2016-06-29 13:35:05
## 263                Liechtenstein 2016-02-02 08:55:26
## 264                     Thailand 2016-04-13 05:42:52
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## 265                            Malaysia 2016-07-20 09:27:24
## 266                           Mauritius 2016-02-26 04:57:14
## 267                             Algeria 2016-02-26 09:18:48
## 268                     Christmas Island 2016-04-15 14:45:48
## 269                               Japan 2016-02-01 14:37:34
## 270                           Greenland 2016-01-20 19:09:37
## 271              Sao Tome and Principe 2016-04-23 06:28:43
## 272                             Senegal 2016-06-19 22:26:16
## 273                          Guadeloupe 2016-02-15 07:55:10
## 274                             Belgium 2016-02-09 19:37:52
## 275                              Israel 2016-01-25 07:52:53
## 276                            Honduras 2016-07-18 11:33:31
## 277                             Estonia 2016-01-09 07:28:16
## 278                            Paraguay 2016-03-21 21:15:54
## 279                     Kyrgyz Republic 2016-02-15 12:25:28
## 280                          Mauritania 2016-03-04 08:48:29
## 281                       French Guiana 2016-01-05 00:02:53
## 282            Northern Mariana Islands 2016-05-15 01:03:06
## 283                             Lebanon 2016-05-05 09:28:36
## 284          Saint Pierre and Miquelon 2016-05-26 13:18:30
## 285                      American Samoa 2016-05-21 01:36:16
## 286                             Austria 2016-05-04 12:06:18
## 287                               Tonga 2016-07-05 18:59:45
## 288                               Tonga 2016-06-28 20:13:41
## 289         French Southern Territories 2016-05-05 11:09:29
## 290                              Serbia 2016-03-25 15:17:39
## 291                       New Caledonia 2016-01-23 15:02:13
## 292                              Taiwan 2016-05-29 07:29:27
## 293            United States of America 2016-05-30 07:36:31
## 294                             Morocco 2016-04-17 15:46:03
## 295                            Suriname 2016-07-20 23:08:28
## 296                           Macedonia 2016-06-29 03:07:51
## 297                   Wallis and Futuna 2016-04-10 14:48:35
## 298                               Chile 2016-04-16 16:38:35
## 299                               Gabon 2016-05-03 08:21:23
## 300                               Gabon 2016-03-18 16:04:59
## 301       Holy See (Vatican City State) 2016-05-22 00:01:58
## 302                          Seychelles 2016-02-01 20:30:35
## 303                             Mayotte 2016-01-23 17:39:06
## 304                              Uganda 2016-05-19 03:52:24
## 305                            Cambodia 2016-05-09 21:54:38
## 306                 Antigua and Barbuda 2016-05-31 11:44:45
## 307                            Cameroon 2016-03-30 19:09:50
## 308                             Somalia 2016-01-09 15:49:28
## 309                             Lebanon 2016-04-18 03:41:56
## 310          Saint Pierre and Miquelon 2016-06-13 13:59:51
## 311                            Dominica 2016-04-23 08:15:31
## 312                             Hungary 2016-03-27 16:41:29
## 313                              Taiwan 2016-02-19 07:29:30
## 314                         Saint Lucia 2016-05-19 11:16:59
## 315                                Niue 2016-01-27 20:47:57
## 316                              France 2016-04-20 00:41:53
## 317                              Cyprus 2016-02-07 07:41:06
## 318         French Southern Territories 2016-04-21 09:30:35
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## 319                              Costa Rica 2016-04-19 05:15:28
## 320                                 Austria 2016-04-12 14:01:08
## 321                                  Zambia 2016-03-15 11:25:48
## 322                                   Congo 2016-02-16 18:21:36
## 323                United States of America 2016-02-18 23:08:59
## 324                        Pitcairn Islands 2016-03-25 08:40:15
## 325                                  Belize 2016-03-16 00:28:10
## 326                                Anguilla 2016-01-28 11:50:40
## 327                            South Africa 2016-03-24 02:01:55
## 328                               Singapore 2016-03-03 22:31:16
## 329                                 Finland 2016-02-26 09:54:33
## 330                              Martinique 2016-07-06 15:56:39
## 331                                Cameroon 2016-06-24 05:50:22
## 332                                  Sweden 2016-05-23 21:00:45
## 333                           New Caledonia 2016-02-03 19:12:51
## 334                  Bosnia and Herzegovina 2016-04-28 22:54:37
## 335                               Singapore 2016-03-19 14:57:00
## 336             Falkland Islands (Malvinas) 2016-07-15 09:08:42
## 337                  Bosnia and Herzegovina 2016-05-12 04:35:59
## 338                               Mauritius 2016-01-01 21:58:55
## 339                               Indonesia 2016-03-13 13:50:25
## 340                          Czech Republic 2016-07-16 14:13:54
## 341                                 Eritrea 2016-04-18 00:49:33
## 342                                  Mexico 2016-07-17 01:13:56
## 343                               Gibraltar 2016-02-17 07:05:57
## 344                                   Haiti 2016-06-16 02:33:22
## 345             Falkland Islands (Malvinas) 2016-04-09 16:31:15
## 346                                 Eritrea 2016-03-18 17:35:40
## 347                               Hong Kong 2016-05-11 22:02:17
## 348                                  Gambia 2016-05-25 20:10:02
## 349                                 Barbados 2016-02-29 19:26:35
## 350                                   Nauru 2016-06-09 14:24:06
## 351                                    Peru 2016-01-30 16:15:29
## 352                             El Salvador 2016-02-15 05:35:54
## 353                   Libyan Arab Jamahiriya 2016-01-31 06:14:10
## 354                                Cambodia 2016-01-05 16:34:31
## 355                        Saint Barthelemy 2016-05-31 02:17:18
## 356                                 Reunion 2016-04-21 16:10:50
## 357                     Antigua and Barbuda 2016-04-10 03:30:16
## 358                                   Samoa 2016-02-09 07:21:25
## 359                             Afghanistan 2016-06-17 17:11:16
## 360                              Azerbaijan 2016-05-22 21:54:23
## 361                             Philippines 2016-07-13 07:41:42
## 362                                  Angola 2016-01-23 18:59:21
## 363                                 Albania 2016-05-20 12:17:59
## 364                                 Hungary 2016-01-30 04:38:41
## 365                           Faroe Islands 2016-04-21 12:34:28
## 366                          Czech Republic 2016-04-22 20:32:17
## 367               Svalbard & Jan Mayen Islands 2016-01-11 06:02:27
## 368                             Afghanistan 2016-03-01 10:01:35
## 369                                  Rwanda 2016-04-04 08:19:54
## 370                                  Panama 2016-06-20 06:30:06
## 371                                   Samoa 2016-01-28 07:10:29
## 372      United States Minor Outlying Islands 2016-07-03 04:11:40
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## 373                                           Greece 2016-05-15 13:18:34
## 374                                    Cote d'Ivoire 2016-04-08 22:48:25
## 375                                         Pakistan 2016-01-19 12:18:13
## 376                                         Anguilla 2016-05-26 15:40:26
## 377                                           Cyprus 2016-01-26 15:56:55
## 378                                             Peru 2016-06-17 09:58:46
## 379                                            Kenya 2016-04-25 21:15:39
## 380                                             Chad 2016-07-13 11:41:29
## 381                                 Kyrgyz Republic 2016-07-05 15:14:10
## 382                                          Albania 2016-03-15 14:06:17
## 383                                            Gabon 2016-06-19 22:08:15
## 384                               Dominican Republic 2016-07-05 20:16:13
## 385                                         Zimbabwe 2016-05-09 08:44:55
## 386                                          Croatia 2016-07-21 23:14:35
## 387                                         Cambodia 2016-06-03 17:32:47
## 388                                         Mongolia 2016-01-15 19:40:47
## 389                                         Honduras 2016-02-05 16:50:58
## 390                                       Madagascar 2016-02-29 23:56:06
## 391                                            Qatar 2016-05-08 12:08:26
## 392                                            China 2016-07-13 01:48:46
## 393                                       Bangladesh 2016-01-08 02:34:06
## 394                                        Swaziland 2016-06-08 12:25:49
## 395                                         Tanzania 2016-06-15 11:56:41
## 396                                          Eritrea 2016-06-13 22:41:45
## 397                                           Canada 2016-06-20 14:20:52
## 398                             Saint Kitts and Nevis 2016-04-03 06:17:22
## 399                                     Burkina Faso 2016-05-31 23:42:26
## 400                                           Tuvalu 2016-02-15 03:43:55
## 401                                      El Salvador 2016-03-10 23:26:54
## 402                                       Madagascar 2016-02-26 17:01:01
## 403                                       Bangladesh 2016-04-17 21:39:11
## 404                                   American Samoa 2016-03-26 19:54:16
## 405                                           Latvia 2016-06-29 21:39:42
## 406                                          Moldova 2016-01-27 17:55:44
## 407                                         Anguilla 2016-03-17 23:39:28
## 408                                       Bangladesh 2016-07-09 16:23:33
## 409                                     Faroe Islands 2016-06-28 12:51:02
## 410                                           Taiwan 2016-06-18 16:32:58
## 411           Heard Island and McDonald Islands 2016-05-28 12:38:37
## 412                                           Israel 2016-01-16 16:40:30
## 413                                          Bolivia 2016-07-11 15:45:23
## 414                                          Bahamas 2016-07-16 23:08:54
## 415                                       Costa Rica 2016-04-06 21:20:07
## 416                                          Myanmar 2016-07-05 00:54:11
## 417                             Netherlands Antilles 2016-02-17 23:47:00
## 418                                   Czech Republic 2016-03-15 17:33:15
## 419                                          Iceland 2016-01-21 18:51:01
## 420                                            Palau 2016-06-06 22:41:24
## 421                           Libyan Arab Jamahiriya 2016-05-16 14:50:22
## 422                                       Kazakhstan 2016-04-17 19:10:56
## 423                                    French Guiana 2016-03-30 01:05:34
## 424                                           Tuvalu 2016-06-29 09:04:31
## 425                                            Congo 2016-05-26 13:43:05
## 426                                   United Kingdom 2016-04-15 10:16:49
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## 427                                Luxembourg 2016-05-31 09:06:29
## 428                           French Polynesia 2016-02-15 14:13:47
## 429                          Papua New Guinea 2016-05-09 10:21:48
## 430                                  Maldives 2016-07-07 23:32:38
## 431                                    Zambia 2016-01-03 17:10:05
## 432                               Cook Islands 2016-07-17 18:55:38
## 433                                     Congo 2016-04-04 18:36:59
## 434                                   Senegal 2016-02-27 12:34:19
## 435                                   Myanmar 2016-06-08 20:13:27
## 436                        Dominican Republic 2016-02-20 10:52:51
## 437                                   Bahrain 2016-03-23 21:06:51
## 438                               Puerto Rico 2016-06-07 01:29:06
## 439                                     Chile 2016-01-18 15:18:01
## 440                                   Bolivia 2016-06-09 19:32:27
## 441                                    Serbia 2016-05-30 20:07:59
## 442                                  Malaysia 2016-04-01 09:21:14
## 443                                   Estonia 2016-05-31 06:21:02
## 444                                 Greenland 2016-07-03 22:13:19
## 445                        Trinidad and Tobago 2016-03-10 01:36:19
## 446                                  Thailand 2016-03-18 02:39:26
## 447                               Philippines 2016-05-30 18:08:19
## 448                                      Niue 2016-02-20 00:06:20
## 449                               Afghanistan 2016-03-10 22:28:52
## 450                                    Angola 2016-06-21 14:32:32
## 451                                     Egypt 2016-02-05 15:26:37
## 452                                      Fiji 2016-05-31 21:41:46
## 453                                  Portugal 2016-01-01 02:52:10
## 454                                   Austria 2016-03-04 14:10:12
## 455                                   Germany 2016-02-03 10:40:27
## 456                                    Panama 2016-01-20 00:26:15
## 457                  United States of America 2016-06-11 09:37:52
## 458                           Christmas Island 2016-03-08 05:48:20
## 459                          Equatorial Guinea 2016-02-14 22:23:30
## 460                                Micronesia 2016-07-17 22:04:54
## 461                                     Malta 2016-06-02 22:16:08
## 462                                   Ecuador 2016-04-30 19:42:04
## 463                                     Sudan 2016-04-17 06:58:18
## 464              Lao People's Democratic Republic 2016-03-09 00:41:46
## 465          Saint Vincent and the Grenadines 2016-03-07 20:02:51
## 466                               Switzerland 2016-05-26 10:33:00
## 467                                     Spain 2016-07-18 01:36:37
## 468                 Turks and Caicos Islands 2016-07-16 05:56:42
## 469                                 Indonesia 2016-03-22 06:41:38
## 470                               Cook Islands 2016-06-03 06:34:44
## 471                                 Australia 2016-06-28 09:19:06
## 472                                   Finland 2016-07-18 18:33:05
## 473                                  Pakistan 2016-01-23 04:47:37
## 474                                   Ireland 2016-02-29 11:00:06
## 475                                   Eritrea 2016-06-30 00:19:33
## 476                                    France 2016-06-19 18:19:38
## 477                                   Austria 2016-01-08 08:08:47
## 478           Heard Island and McDonald Islands 2016-01-02 12:25:36
## 479                             Western Sahara 2016-05-13 11:57:12
## 480                                   Liberia 2016-02-08 14:02:22
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## 481                        Dominican Republic 2016-06-07 23:46:51
## 482                                     Tonga 2016-01-02 14:36:03
## 483      Lao People's Democratic Republic 2016-02-13 04:16:08
## 484               United States of America 2016-05-03 12:57:19
## 485                                   Belgium 2016-04-03 11:38:36
## 486                                 Indonesia 2016-03-23 19:58:15
## 487                                   Croatia 2016-02-02 11:49:18
## 488                         Brunei Darussalam 2016-03-08 10:39:16
## 489                           American Samoa 2016-04-08 14:35:44
## 490                       Netherlands Antilles 2016-06-30 00:40:31
## 491                                  Thailand 2016-03-25 19:02:35
## 492                                    Greece 2016-05-12 21:32:06
## 493                         French Polynesia 2016-03-02 05:11:01
## 494                                  Guernsey 2016-05-10 14:12:31
## 495                               Isle of Man 2016-03-03 02:59:37
## 496       Holy See (Vatican City State) 2016-07-04 11:03:49
## 497                               El Salvador 2016-07-08 03:47:41
## 498                                     China 2016-05-27 05:35:27
## 499                                   Myanmar 2016-02-10 13:46:35
## 500                                     Macao 2016-06-12 21:21:53
## 501                                 Australia 2016-01-07 13:58:51
## 502          United States Virgin Islands 2016-05-13 14:12:39
## 503                                    Mexico 2016-05-02 00:01:56
## 504                                  Djibouti 2016-02-07 17:06:35
## 505                           Cote d'Ivoire 2016-02-15 07:27:41
## 506                                      Mali 2016-02-21 05:23:28
## 507                                   Jamaica 2016-03-20 22:27:25
## 508                                   Romania 2016-03-24 09:34:00
## 509                            Cayman Islands 2016-04-04 20:01:12
## 510                                    Gambia 2016-01-02 04:50:44
## 511                                   Algeria 2016-07-08 17:14:01
## 512                               Puerto Rico 2016-03-28 19:48:37
## 513                            Norfolk Island 2016-07-11 09:32:53
## 514                                    Turkey 2016-06-09 17:11:02
## 515                                    Guinea 2016-05-19 09:30:12
## 516                                   Moldova 2016-04-12 12:35:39
## 517                                    Greece 2016-07-04 23:17:47
## 518                            American Samoa 2016-02-01 00:52:29
## 519                                  Honduras 2016-01-13 02:39:00
## 520                                  Mongolia 2016-06-18 16:02:34
## 521                                  Ethiopia 2016-01-01 20:17:49
## 522                                  Ethiopia 2016-03-02 04:02:45
## 523                                 Sri Lanka 2016-03-30 20:23:48
## 524                                   Morocco 2016-05-01 00:23:13
## 525                      United Arab Emirates 2016-06-17 03:02:55
## 526                            Western Sahara 2016-03-23 08:52:31
## 527                            Western Sahara 2016-05-08 22:24:27
## 528                                  Cambodia 2016-04-06 05:55:43
## 529                               New Zealand 2016-04-05 05:54:15
## 530                                 Australia 2016-04-16 12:26:31
## 531                                  Bulgaria 2016-06-01 03:44:42
## 532                     Libyan Arab Jamahiriya 2016-04-04 22:00:15
## 533                                  Barbados 2016-06-26 04:22:26
## 534                          French Polynesia 2016-07-07 03:55:01
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## 535                                      Uruguay 2016-03-20 08:22:50
## 536                                      Uruguay 2016-04-20 10:04:29
## 537                                       Brazil 2016-03-25 05:05:27
## 538                                    Venezuela 2016-02-14 07:15:37
## 539                                      Myanmar 2016-03-26 00:32:02
## 540                                        Malta 2016-07-05 22:33:48
## 541                                      Jamaica 2016-03-14 03:29:12
## 542                                      Bahrain 2016-05-30 02:34:25
## 543                                      Algeria 2016-03-07 22:32:15
## 544                                       Tuvalu 2016-03-19 00:27:58
## 545                                      Georgia 2016-06-18 05:17:33
## 546                                     Cambodia 2016-07-11 18:12:43
## 547                                         Guam 2016-01-01 08:27:06
## 548                                     Tanzania 2016-04-07 01:57:38
## 549                                    Indonesia 2016-02-28 22:02:14
## 550                                      Somalia 2016-06-26 17:25:55
## 551                                       Belize 2016-01-21 04:30:43
## 552                                       Serbia 2016-05-01 21:46:37
## 553                                    Australia 2016-02-14 10:06:49
## 554                                         Guam 2016-01-27 18:25:42
## 555                             Christmas Island 2016-06-16 20:24:33
## 556                            Papua New Guinea 2016-07-21 10:01:50
## 557                                      Bahamas 2016-04-21 18:31:27
## 558                                      Comoros 2016-07-20 01:56:33
## 559                               Western Sahara 2016-02-26 17:14:14
## 560                                    Nicaragua 2016-01-16 17:56:05
## 561                                         Guam 2016-04-01 01:57:12
## 562                                      Vanuatu 2016-06-24 08:42:20
## 563                                      Bolivia 2016-05-27 18:45:35
## 564                                       Malawi 2016-05-26 15:40:12
## 565                                    Venezuela 2016-04-06 01:19:08
## 566                                        Nepal 2016-01-08 19:38:45
## 567                               United Kingdom 2016-02-24 19:08:11
## 568                                      Albania 2016-03-10 07:07:31
## 569                                   Madagascar 2016-04-29 07:49:01
## 570                                       Guyana 2016-04-10 16:08:09
## 571                                        Yemen 2016-04-27 18:25:30
## 572                                        India 2016-05-10 04:28:55
## 573                                  Puerto Rico 2016-01-03 23:21:26
## 574                   United States Virgin Islands 2016-02-15 16:52:04
## 575                          Antigua and Barbuda 2016-03-09 02:07:17
## 576                               French Guiana 2016-01-09 17:33:03
## 577                          Antigua and Barbuda 2016-02-03 05:47:09
## 578                                 Turkmenistan 2016-01-02 09:30:11
## 579                                     Honduras 2016-01-04 07:28:43
## 580                                   Seychelles 2016-01-07 21:21:50
## 581                                       Cyprus 2016-07-24 00:22:16
## 582                   Saint Pierre and Miquelon 2016-02-13 13:57:53
## 583                                       Poland 2016-05-08 10:25:08
## 584                                       Taiwan 2016-02-17 18:50:57
## 585                               Cote d'Ivoire 2016-01-22 19:43:53
## 586                                   Micronesia 2016-07-20 13:21:37
## 587                                      Liberia 2016-01-05 20:58:42
## 588                                 Saudi Arabia 2016-01-29 05:39:16
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## 589                                  Nepal 2016-06-17 20:18:27
## 590                                  Ghana 2016-02-23 13:55:48
## 591                                   Iran 2016-07-09 11:18:02
## 592                            New Zealand 2016-03-19 11:09:36
## 593                 Libyan Arab Jamahiriya 2016-01-29 07:14:04
## 594                              Sri Lanka 2016-06-14 07:02:09
## 595                   United Arab Emirates 2016-05-18 03:19:03
## 596                              Indonesia 2016-01-30 09:54:03
## 597       Saint Vincent and the Grenadines 2016-04-25 16:58:50
## 598                               Mongolia 2016-01-14 16:30:38
## 599                               Honduras 2016-07-06 05:34:52
## 600                       Papua New Guinea 2016-04-07 10:51:05
## 601                        Kyrgyz Republic 2016-04-17 05:08:52
## 602                               Ethiopia 2016-01-28 17:03:54
## 603                                 Rwanda 2016-02-18 22:42:33
## 604                        Kyrgyz Republic 2016-06-24 21:09:58
## 605                                Grenada 2016-06-20 04:24:41
## 606                                   Togo 2016-02-14 16:33:29
## 607                               Pakistan 2016-02-27 13:51:44
## 608             Falkland Islands (Malvinas) 2016-05-07 15:16:07
## 609                                 Jersey 2016-03-16 20:10:53
## 610                         Cayman Islands 2016-06-26 02:06:59
## 611                           South Africa 2016-07-17 14:26:04
## 612                             Micronesia 2016-01-28 16:42:36
## 613                             Tajikistan 2016-06-16 18:04:51
## 614                                Bolivia 2016-06-19 23:21:38
## 615                               Cameroon 2016-05-24 17:42:58
## 616                                Ecuador 2016-03-01 22:06:37
## 617                                 Zambia 2016-01-31 08:50:38
## 618                          Guinea-Bissau 2016-04-30 15:27:22
## 619                             Micronesia 2016-01-13 20:38:35
## 620                                Bahamas 2016-03-30 16:15:59
## 621                             Cape Verde 2016-04-29 18:53:43
## 622                       French Polynesia 2016-06-14 19:48:34
## 623                           Saudi Arabia 2016-07-15 15:43:36
## 624                                 France 2016-03-24 05:38:01
## 625                                Burundi 2016-04-26 20:57:48
## 626                                 Latvia 2016-01-12 03:28:31
## 627                                Morocco 2016-04-09 23:26:42
## 628                              Venezuela 2016-03-28 09:15:58
## 629                                  Palau 2016-06-23 11:05:01
## 630                            Isle of Man 2016-01-24 01:53:14
## 631                                   Peru 2016-04-15 10:18:55
## 632                                Belgium 2016-04-26 13:13:20
## 633                                Croatia 2016-05-16 23:21:06
## 634                                 France 2016-01-18 02:51:13
## 635                               Slovenia 2016-06-20 08:34:46
## 636                                   Peru 2016-07-18 04:53:22
## 637                                Belarus 2016-07-01 01:12:04
## 638                                Bolivia 2016-03-07 22:51:00
## 639                                  Benin 2016-05-02 15:31:28
## 640                      Wallis and Futuna 2016-07-23 06:18:51
## 641                             Azerbaijan 2016-06-12 03:11:04
## 642                               Mongolia 2016-02-15 20:41:05
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## 643                                       Denmark 2016-01-23 01:42:28
## 644                            Russian Federation 2016-02-26 01:18:44
## 645                                        Brazil 2016-01-11 02:07:14
## 646                                      Ethiopia 2016-04-04 13:56:14
## 647                                        Guyana 2016-01-14 09:27:59
## 648                                      Ethiopia 2016-04-25 03:18:45
## 649                                     Mauritius 2016-03-05 23:02:11
## 650                                      Djibouti 2016-01-06 21:43:22
## 651                          Syrian Arab Republic 2016-02-18 03:58:36
## 652                                  Saint Martin 2016-04-16 14:15:55
## 653                           Netherlands Antilles 2016-02-24 06:18:11
## 654                                        Greece 2016-06-29 01:19:21
## 655                                    Madagascar 2016-01-05 06:34:20
## 656                                       Senegal 2016-07-16 10:14:04
## 657                                  Burkina Faso 2016-06-17 03:23:13
## 658                                Czech Republic 2016-06-13 11:06:40
## 659          Lao People's Democratic Republic 2016-04-05 08:18:45
## 660                          Netherlands Antilles 2016-04-17 18:38:14
## 661                                         Qatar 2016-02-03 16:54:33
## 662                                       Andorra 2016-04-18 21:07:28
## 663                                 Liechtenstein 2016-06-18 22:31:22
## 664                                         China 2016-03-12 07:18:36
## 665                                       Vietnam 2016-01-15 01:20:05
## 666                                    Tajikistan 2016-02-12 10:39:10
## 667                                       Eritrea 2016-02-16 02:29:03
## 668                                        Monaco 2016-04-04 21:23:13
## 669                                        Israel 2016-04-24 01:48:21
## 670                                       Hungary 2016-05-20 00:00:48
## 671                                     Singapore 2016-05-15 03:10:50
## 672                                          Cuba 2016-01-07 23:02:43
## 673                                       Reunion 2016-07-19 12:05:58
## 674                                        Zambia 2016-04-04 00:02:20
## 675                                         Gabon 2016-06-10 04:21:57
## 676                                      Dominica 2016-03-11 14:50:56
## 677                                       Bahamas 2016-01-14 20:58:10
## 678                                       Tokelau 2016-06-22 05:22:58
## 679                                  Turkmenistan 2016-03-19 08:00:58
## 680                                       Belgium 2016-04-15 15:07:17
## 681                                 French Guiana 2016-03-28 02:29:19
## 682                                    Martinique 2016-01-22 15:03:25
## 683                              French Polynesia 2016-06-25 17:33:35
## 684                                       Ecuador 2016-03-04 14:33:38
## 685                                   Puerto Rico 2016-06-29 02:48:44
## 686                          United Arab Emirates 2016-06-18 01:42:37
## 687                                  Burkina Faso 2016-01-31 09:57:34
## 688                                    Luxembourg 2016-05-22 15:17:25
## 689                                       Jamaica 2016-07-22 11:05:10
## 690   Antarctica (the territory South of 60 deg S) 2016-07-13 14:05:22
## 691                                         China 2016-02-11 11:50:26
## 692                                Western Sahara 2016-03-16 20:33:10
## 693                                       Lebanon 2016-04-25 19:31:39
## 694                                     Hong Kong 2016-07-14 22:43:29
## 695                                       Vanuatu 2016-05-30 08:02:35
## 696                                       Vanuatu 2016-02-14 11:36:08
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## 697                                    Guatemala 2016-01-23 21:15:57
## 698                                    Greenland 2016-07-18 02:51:19
## 699                          Syrian Arab Republic 2016-02-10 08:21:13
## 700                                  Saint Helena 2016-01-04 06:37:15
## 701                                       Lebanon 2016-06-05 21:38:22
## 702                                         Malta 2016-06-01 03:17:50
## 703                              Christmas Island 2016-03-06 06:51:23
## 704                                       Ukraine 2016-02-26 19:35:54
## 705                                         Malta 2016-07-13 14:30:14
## 706                                         Italy 2016-06-29 07:20:46
## 707                                         Japan 2016-03-15 06:54:21
## 708                                     Mauritius 2016-06-11 06:47:55
## 709                                        Turkey 2016-07-17 13:22:43
## 710                                       Namibia 2016-02-14 14:38:01
## 711                                         China 2016-05-04 05:01:37
## 712                                   Netherlands 2016-05-20 12:17:28
## 713                                     Gibraltar 2016-01-26 02:47:17
## 714                                         Congo 2016-07-07 18:07:19
## 715                                       Senegal 2016-01-11 12:46:31
## 716                                       Hungary 2016-05-12 12:11:12
## 717                              Pitcairn Islands 2016-02-28 23:21:22
## 718                    Slovakia (Slovak Republic) 2016-05-03 16:02:50
## 719                   United States Virgin Islands 2016-03-15 20:19:20
## 720                                        Monaco 2016-07-23 05:21:39
## 721                                      Portugal 2016-03-11 10:01:23
## 722                                        Turkey 2016-02-11 20:45:46
## 723                                        Uganda 2016-07-06 23:09:07
## 724                                Norfolk Island 2016-03-22 19:14:47
## 725                                          Niue 2016-05-26 13:28:36
## 726                                       Ukraine 2016-06-18 19:10:14
## 727                                       Vanuatu 2016-03-20 07:12:52
## 728         United States Minor Outlying Islands 2016-06-03 07:00:36
## 729                                       Armenia 2016-02-03 15:15:42
## 730                                        Sweden 2016-05-03 16:55:02
## 731                                   Timor-Leste 2016-06-20 02:25:12
## 732                    French Southern Territories 2016-07-10 19:15:52
## 733                                       Finland 2016-01-04 04:00:35
## 734           Saint Vincent and the Grenadines 2016-04-20 16:49:15
## 735                                       Senegal 2016-01-23 13:14:18
## 736                                       Burundi 2016-01-04 22:27:25
## 737                                       Bahamas 2016-04-08 22:40:55
## 738                                        Sweden 2016-01-05 11:53:17
## 739                    Svalbard & Jan Mayen Islands 2016-03-17 22:24:02
## 740                                         Tonga 2016-06-29 04:23:10
## 741                                         Korea 2016-05-25 19:45:16
## 742                               Kyrgyz Republic 2016-06-17 23:19:38
## 743                                    Costa Rica 2016-04-24 07:20:16
## 744                                 Liechtenstein 2016-03-18 13:00:12
## 745                                      Zimbabwe 2016-04-28 21:58:25
## 746                                    Costa Rica 2016-02-12 08:46:15
## 747                                       Hungary 2016-07-11 13:23:37
## 748                                          Fiji 2016-01-29 00:45:19
## 749                                   Netherlands 2016-01-05 16:26:44
## 750                                        Sweden 2016-06-20 08:22:09
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## 751                                            Barbados 2016-02-06 17:48:28
## 752                                            Paraguay 2016-06-22 17:19:09
## 753                                               Italy 2016-04-16 05:24:33
## 754                                             Belarus 2016-01-17 05:07:11
## 755     South Georgia and the South Sandwich Islands 2016-07-08 22:30:10
## 756                                            Anguilla 2016-03-11 00:05:48
## 757                                        Sierra Leone 2016-06-10 00:35:15
## 758                                        Saint Martin 2016-01-04 00:44:57
## 759                                              Uganda 2016-01-01 15:14:24
## 760                                        Saudi Arabia 2016-07-10 17:24:51
## 761                                           Greenland 2016-03-27 19:50:11
## 762                                           Venezuela 2016-04-29 13:38:19
## 763                                             Liberia 2016-01-08 18:13:43
## 764                                                Mali 2016-06-05 07:54:30
## 765                              Bosnia and Herzegovina 2016-06-29 10:50:45
## 766                                    Brunei Darussalam 2016-04-24 13:46:10
## 767     South Georgia and the South Sandwich Islands 2016-02-14 04:14:13
## 768                                      Czech Republic 2016-06-15 05:43:02
## 769                                         El Salvador 2016-07-06 12:04:29
## 770                                             Tokelau 2016-03-31 13:54:51
## 771                                              France 2016-06-21 00:52:47
## 772                                               Gabon 2016-05-27 05:23:26
## 773                                            Bulgaria 2016-01-17 18:45:55
## 774                                        Burkina Faso 2016-04-07 20:34:42
## 775                                             Mayotte 2016-05-02 18:37:01
## 776                                             Somalia 2016-06-04 17:24:07
## 777                                             Albania 2016-04-07 18:52:57
## 778                                             Bolivia 2016-06-10 22:21:10
## 779                                              Jersey 2016-05-19 06:37:38
## 780                               British Virgin Islands 2016-03-28 23:01:24
## 781                                         Saint Helena 2016-01-21 22:51:34
## 782                              Bosnia and Herzegovina 2016-03-12 06:05:12
## 783                                               India 2016-06-04 09:13:29
## 784                                             Georgia 2016-05-24 10:16:38
## 785          United States Minor Outlying Islands 2016-03-25 06:36:53
## 786                                            Kiribati 2016-04-22 00:28:18
## 787                                               Ghana 2016-03-22 04:13:35
## 788                                               Samoa 2016-01-14 08:27:04
## 789                                                Iran 2016-04-14 21:37:49
## 790                                          Costa Rica 2016-05-31 17:50:15
## 791                            Northern Mariana Islands 2016-03-17 06:25:47
## 792                                       Liechtenstein 2016-04-13 07:07:36
## 793                                             Grenada 2016-02-03 22:11:13
## 794                                              Poland 2016-02-02 19:59:17
## 795                                               Kenya 2016-04-07 20:38:02
## 796                                                Iran 2016-03-15 19:35:19
## 797                                             Belgium 2016-03-11 12:39:19
## 798                                             Namibia 2016-05-17 18:06:46
## 799                                              Cyprus 2016-02-28 23:10:32
## 800                                               Japan 2016-03-02 06:35:08
## 801                                            Zimbabwe 2016-02-27 08:52:50
## 802                                             Andorra 2016-03-14 04:34:35
## 803                                          Luxembourg 2016-03-10 15:07:44
## 804                                              Cyprus 2016-05-01 08:27:12
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## 805                                    Turkey 2016-06-12 11:17:25
## 806                                 Hong Kong 2016-05-28 12:20:15
## 807                               Netherlands 2016-03-18 09:08:39
## 808                United States Virgin Islands 2016-05-26 06:03:57
## 809                           Marshall Islands 2016-07-06 03:40:17
## 810                             Western Sahara 2016-04-29 14:10:00
## 811           Saint Vincent and the Grenadines 2016-03-05 20:53:19
## 812                   United States of America 2016-05-30 08:35:54
## 813                                    Angola 2016-04-10 06:32:11
## 814                             Cayman Islands 2016-01-20 02:31:36
## 815                                 Swaziland 2016-07-20 21:53:42
## 816                          Wallis and Futuna 2016-01-17 04:12:30
## 817                                  Zimbabwe 2016-02-24 07:13:00
## 818                                      Chad 2016-03-26 19:37:46
## 819                               Saint Martin 2016-06-04 09:25:27
## 820                                    Rwanda 2016-04-22 07:48:33
## 821                                   Moldova 2016-03-31 08:53:43
## 822                                     Gabon 2016-04-16 08:36:08
## 823                                   Denmark 2016-05-12 20:57:10
## 824                Svalbard & Jan Mayen Islands 2016-05-07 21:32:51
## 825                                    Poland 2016-06-25 00:33:23
## 826                                      Fiji 2016-03-23 05:27:35
## 827                               Philippines 2016-03-04 13:47:47
## 828                                   Vietnam 2016-06-14 12:08:10
## 829                                    Jersey 2016-05-11 19:13:42
## 830                                 Indonesia 2016-01-21 23:33:22
## 831                     Palestinian Territory 2016-01-15 19:45:33
## 832                                    Latvia 2016-04-23 09:42:08
## 833                                     Malta 2016-05-23 08:06:24
## 834                               Afghanistan 2016-02-27 15:04:52
## 835                                   Austria 2016-02-23 17:37:46
## 836                                Micronesia 2016-03-17 22:59:46
## 837                                    Mexico 2016-02-28 03:34:35
## 838                                     Chile 2016-03-15 14:33:12
## 839                                      Cuba 2016-03-03 20:20:32
## 840                                   Belarus 2016-04-06 14:16:52
## 841                                    Malawi 2016-05-01 09:23:25
## 842                               Afghanistan 2016-05-30 08:02:27
## 843                                Luxembourg 2016-04-04 11:39:51
## 844                              South Africa 2016-04-06 23:10:40
## 845                                     Nepal 2016-04-26 21:45:50
## 846                                     Spain 2016-05-25 00:34:59
## 847                                 Hong Kong 2016-02-11 16:45:41
## 848                Slovakia (Slovak Republic) 2016-01-30 00:05:37
## 849                             Cayman Islands 2016-07-12 10:56:21
## 850                                    Uganda 2016-04-23 03:46:34
## 851                                   Vanuatu 2016-04-16 10:36:49
## 852                                  Anguilla 2016-03-11 13:07:30
## 853                               Switzerland 2016-03-02 15:39:02
## 854                                  Zimbabwe 2016-07-13 21:31:14
## 855                                   Uruguay 2016-05-29 18:12:00
## 856                                   Liberia 2016-05-10 17:13:47
## 857                                     Egypt 2016-05-07 08:39:47
## 858                                    Greece 2016-01-17 13:27:13
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## 859                           Bahrain 2016-03-09 06:22:03
## 860                         Sri Lanka 2016-04-05 18:02:49
## 861                        Kazakhstan 2016-04-01 07:37:18
## 862                         Greenland 2016-02-15 16:18:49
## 863                           Moldova 2016-03-08 05:12:57
## 864                            Poland 2016-02-09 23:38:30
## 865                          Anguilla 2016-06-17 09:38:22
## 866          Central African Republic 2016-06-01 12:27:17
## 867                            Mexico 2016-02-26 23:44:44
## 868                              Togo 2016-03-11 09:58:32
## 869                           Armenia 2016-04-28 02:55:10
## 870                         Nicaragua 2016-04-12 04:22:42
## 871                           Eritrea 2016-02-10 20:43:38
## 872                            Canada 2016-05-01 23:21:53
## 873                           Croatia 2016-03-24 17:48:31
## 874                       Switzerland 2016-04-22 19:45:19
## 875                             Yemen 2016-03-09 12:10:08
## 876                           Tokelau 2016-03-30 05:29:38
## 877                           Armenia 2016-01-24 13:41:38
## 878                 Equatorial Guinea 2016-07-15 09:42:19
## 879                          Barbados 2016-06-07 05:41:16
## 880                    American Samoa 2016-05-31 23:32:00
## 881                       Saint Lucia 2016-05-14 14:49:05
## 882                           Algeria 2016-01-10 20:18:21
## 883                      Turkmenistan 2016-02-21 16:57:59
## 884                           Mayotte 2016-05-23 00:32:54
## 885                      South Africa 2016-07-21 20:30:06
## 886                             Macao 2016-05-15 18:44:50
## 887                            France 2016-06-30 00:43:40
## 888                 Equatorial Guinea 2016-02-24 06:17:18
## 889                              Mali 2016-05-30 21:22:22
## 890                           Mayotte 2016-06-02 04:14:37
## 891                          Pakistan 2016-04-18 07:00:38
## 892                        Guadeloupe 2016-02-29 18:06:21
## 893                           Denmark 2016-05-27 12:45:37
## 894                       New Zealand 2016-01-12 21:17:15
## 895              Netherlands Antilles 2016-01-27 17:08:19
## 896                           Belarus 2016-06-10 03:56:41
## 897                            Taiwan 2016-04-09 09:26:39
## 898                       El Salvador 2016-02-26 06:00:16
## 899                            Taiwan 2016-02-21 23:07:11
## 900                              Peru 2016-04-29 14:08:26
## 901                           Liberia 2016-02-11 17:02:07
## 902                           Burundi 2016-07-22 07:44:43
## 903                             Macao 2016-06-26 02:34:15
## 904                         Venezuela 2016-05-14 23:08:14
## 905                        Luxembourg 2016-05-24 10:04:39
## 906                             Italy 2016-02-16 12:05:45
## 907                        San Marino 2016-03-20 02:44:13
## 908                        Madagascar 2016-01-31 05:12:44
## 909                    Norfolk Island 2016-04-01 05:17:28
## 910                           Vanuatu 2016-02-25 16:33:24
## 911                           Tunisia 2016-03-21 11:02:49
## 912                          Paraguay 2016-02-12 05:20:19
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## 913                                  Macedonia 2016-06-01 16:10:30
## 914         Heard Island and McDonald Islands 2016-06-16 03:17:45
## 915                                   Ethiopia 2016-03-26 15:28:07
## 916                                El Salvador 2016-02-16 07:37:28
## 917                                      Niger 2016-02-28 09:31:31
## 918                                Timor-Leste 2016-05-18 01:00:52
## 919                                    Uruguay 2016-02-21 13:11:08
## 920                                    Somalia 2016-01-05 12:59:07
## 921                                   Malaysia 2016-05-18 00:07:43
## 922                                      Korea 2016-03-06 23:26:44
## 923           Lao People's Democratic Republic 2016-05-19 04:23:41
## 924                                    Bahamas 2016-04-29 20:40:21
## 925                                     Guyana 2016-05-03 01:09:01
## 926                                   Ethiopia 2016-06-27 21:51:47
## 927                     Bosnia and Herzegovina 2016-02-08 07:33:22
## 928                                     Cyprus 2016-02-22 07:04:05
## 929                                  Singapore 2016-03-21 08:13:24
## 930                         Dominican Republic 2016-05-31 00:58:37
## 931                                    Bermuda 2016-01-01 05:31:22
## 932                                    Jamaica 2016-05-27 08:53:51
## 933                           Saint Barthelemy 2016-05-09 07:13:27
## 934                                    Albania 2016-06-27 01:56:36
## 935                                 Mozambique 2016-06-03 04:51:46
## 936                                   Zimbabwe 2016-02-24 00:44:44
## 937                                    Georgia 2016-03-05 12:03:41
## 938                                     Brazil 2016-01-15 22:49:45
## 939                       Syrian Arab Republic 2016-02-12 03:39:09
## 940                      Palestinian Territory 2016-02-19 20:49:27
## 941                                    Grenada 2016-03-12 02:48:18
## 942                                      Ghana 2016-07-23 04:04:42
## 943                          Brunei Darussalam 2016-03-06 09:33:46
## 944                                  Lithuania 2016-02-24 04:11:37
## 945                                   Maldives 2016-02-17 20:22:49
## 946                                    Lesotho 2016-02-02 04:57:50
## 947                             Czech Republic 2016-01-27 16:06:05
## 948                                    Iceland 2016-05-24 09:50:41
## 949                                Philippines 2016-02-08 22:45:26
## 950                             Cayman Islands 2016-02-12 01:55:38
## 951                                      Haiti 2016-01-11 08:18:12
## 952                                   Colombia 2016-03-03 03:51:27
## 953                                 Luxembourg 2016-05-30 20:08:51
## 954                       United Arab Emirates 2016-04-22 22:01:21
## 955                                    Ireland 2016-05-25 10:39:28
## 956                                     Canada 2016-02-04 03:10:17
## 957             Svalbard & Jan Mayen Islands 2016-02-21 20:09:12
## 958                                      Malta 2016-04-28 01:24:34
## 959                                      Sudan 2016-05-18 19:33:51
## 960                                    Ecuador 2016-02-17 11:15:31
## 961                                    Senegal 2016-06-19 23:04:45
## 962                                   Cambodia 2016-02-20 09:54:06
## 963                                    Belarus 2016-01-22 12:58:14
## 964                                     Guyana 2016-02-19 13:26:24
## 965                                       Mali 2016-01-03 07:13:53
## 966                                       Iran 2016-01-03 04:39:47
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## 967                        Bulgaria 2016-04-13 13:04:47
## 968                     Afghanistan 2016-01-01 03:35:35
## 969                         Liberia 2016-03-27 08:32:37
## 970            Netherlands Antilles 2016-07-10 16:25:56
## 971                       Hong Kong 2016-06-25 04:21:33
## 972                           Palau 2016-01-27 14:41:10
## 973                          Malawi 2016-05-16 18:51:59
## 974                         Uruguay 2016-02-27 20:20:25
## 975                          Cyprus 2016-02-28 23:54:44
## 976                          Mexico 2016-06-13 06:11:33
## 977                           Niger 2016-05-05 11:07:13
## 978                          France 2016-07-07 12:17:33
## 979                           Japan 2016-05-24 17:07:08
## 980                   Norfolk Island 2016-03-30 14:36:55
## 981                        Bulgaria 2016-05-27 05:54:03
## 982                      Uzbekistan 2016-01-03 16:30:51
## 983                          Mexico 2016-06-25 18:17:53
## 984               Brunei Darussalam 2016-02-24 10:36:43
## 985                          France 2016-03-03 03:13:48
## 986                           Yemen 2016-04-21 19:56:24
## 987        Northern Mariana Islands 2016-04-06 17:26:37
## 988                          Poland 2016-03-23 12:53:23
## 989                         Bahrain 2016-02-17 07:00:38
## 990      Saint Pierre and Miquelon 2016-06-26 07:01:47
## 991                           Tonga 2016-04-20 13:36:42
## 992                         Comoros 2016-07-21 16:02:40
## 993                      Montenegro 2016-03-06 11:36:06
## 994                      Isle of Man 2016-02-11 23:45:01
## 995                         Mayotte 2016-04-04 03:57:48
## 996                         Lebanon 2016-02-11 21:49:00
## 997          Bosnia and Herzegovina 2016-04-22 02:07:01
## 998                        Mongolia 2016-02-01 17:24:57
## 999                       Guatemala 2016-03-24 02:35:54
## 1000                         Brazil 2016-06-03 21:43:21
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```
#extracting the year, month and day from the timestamp column
advertising$Year <- format(as.POSIXct(advertising$Timestamp, format='%Y-%m-%d %H:%M:%S'), '%Y')
advertising$Month <- format(as.POSIXct(advertising$Timestamp, format= '%Y-%m-%d %H:%M:%S'), '%m')
advertising$Day <- format(as.POSIXct(advertising$Timestamp, format= '%Y-%m-%d %H:%M:%S'), '%d')
advertising$Hour <- format(as.POSIXct(advertising$Timestamp, format= '%Y-%m-%d %H:%M:%S'), '%H')
head(advertising)
```

```
##   Daily.Time.Spent.on.Site Age Area.Income Daily.Internet.Usage
## 1                    68.95  35    61833.90               256.09
## 2                    80.23  31    68441.85               193.77
## 3                    69.47  26    59785.94               236.50
## 4                    74.15  29    54806.18               245.89
## 5                    68.37  35    73889.99               225.58
## 6                    59.99  23    59761.56               226.74
##                               Ad.Topic.Line            City Male    Country
## 1      Cloned 5thgeneration orchestration      Wrightburgh    0    Tunisia
## 2       Monitored national standardization        West Jodi    1      Nauru
## 3        Organic bottom-line service-desk          Davidton    0 San Marino
## 4 Triple-buffered reciprocal time-frame West Terrifurt       1      Italy
## 5          Robust logistical utilization     South Manuel    0    Iceland
## 6         Sharable client-driven software        Jamieberg    1     Norway
##            Timestamp Clicked.on.Ad Year Month Day Hour
## 1 2016-03-27 00:53:11             0 2016    03  27   00
## 2 2016-04-04 01:39:02             0 2016    04  04   01
## 3 2016-03-13 20:35:42             0 2016    03  13   20
## 4 2016-01-10 02:31:19             0 2016    01  10   02
## 5 2016-06-03 03:36:18             0 2016    06  03   03
## 6 2016-05-19 14:30:17             0 2016    05  19   14
```

```
colSums(is.na(advertising))
```

```
## Daily.Time.Spent.on.Site                      Age              Area.Income
##                        0                        0                        0
##     Daily.Internet.Usage            Ad.Topic.Line                     City
##                        0                        0                        0
##                     Male                  Country                Timestamp
##                        0                        0                        0
##            Clicked.on.Ad                     Year                    Month
##                        0                        0                        0
##                      Day                     Hour
##                        0                        0
```

```
#dropping the timestamp column
advertising$Timestamp <-NULL
head(advertising)
```

```
##   Daily.Time.Spent.on.Site Age   Area.Income Daily.Internet.Usage
## 1                    68.95  35      61833.90                256.09
## 2                    80.23  31      68441.85                193.77
## 3                    69.47  26      59785.94                236.50
## 4                    74.15  29      54806.18                245.89
## 5                    68.37  35      73889.99                225.58
## 6                    59.99  23      59761.56                226.74
##                            Ad.Topic.Line          City Male    Country
## 1      Cloned 5thgeneration orchestration    Wrightburgh    0    Tunisia
## 2      Monitored national standardization      West Jodi    1      Nauru
## 3          Organic bottom-line service-desk       Davidton    0 San Marino
## 4 Triple-buffered reciprocal time-frame West Terrifurt    1       Italy
## 5          Robust logistical utilization    South Manuel    0    Iceland
## 6          Sharable client-driven software      Jamieberg    1     Norway
##   Clicked.on.Ad Year Month Day Hour
## 1             0 2016    03  27   00
## 2             0 2016    04  04   01
## 3             0 2016    03  13   20
## 4             0 2016    01  10   02
## 5             0 2016    06  03   03
## 6             0 2016    05  19   14
```

```
# Removing duplicates from all columns
advsertising = advertising[!duplicated(advertising), ]
```

```
#convert the year, month, day, hour columns to factor
advertising$Year <- as.factor(advertising$Year)
advertising$Month <- as.factor(advertising$Month)
advertising$Day <- as.factor(advertising$Day)
advertising$Hour <- as.factor(advertising$Hour)
str(advertising)
```

```
## 'data.frame':   1000 obs. of  13 variables:
##  $ Daily.Time.Spent.on.Site: num  69 80.2 69.5 74.2 68.4 ...
##  $ Age                     : int  35 31 26 29 35 23 33 48 30 20 ...
##  $ Area.Income             : num  61834 68442 59786 54806 73890 ...
##  $ Daily.Internet.Usage    : num  256 194 236 246 226 ...
##  $ Ad.Topic.Line           : chr  "Cloned 5thgeneration orchestration" "Monitored national standardi:
##  $ City                    : chr  "Wrightburgh" "West Jodi" "Davidton" "West Terrifurt" ...
##  $ Male                    : Factor w/ 2 levels "0","1": 1 2 1 2 1 2 1 2 2 2 ...
##  $ Country                 : chr  "Tunisia" "Nauru" "San Marino" "Italy" ...
##  $ Clicked.on.Ad           : Factor w/ 2 levels "0","1": 1 1 1 1 1 1 1 2 1 1 ...
##  $ Year                    : Factor w/ 1 level "2016": 1 1 1 1 1 1 1 1 1 1 ...
##  $ Month                   : Factor w/ 7 levels "01","02","03",..: 3 4 3 1 6 5 1 3 4 7 ...
##  $ Day                     : Factor w/ 31 levels "01","02","03",..: 27 4 13 10 3 19 28 7 18 11 ...
##  $ Hour                    : Factor w/ 24 levels "00","01","02",..: 1 2 21 3 4 15 21 2 10 2 ...
```

Checking for outliers

```
#Create a list of numeric columns
num.cols <- list(advertising$Daily.Time.Spent.on.Site,advertising$Age,
advertising$Area.Income,advertising$Daily.Internet.Usage)
#Checking for outliers
boxplot(num.cols, names=c('Daily.Time.Spent.on.Site', 'Age', 'Area.Income', 'Daily.Internet.Usage'), ma
```

Boxplots to show Outliers
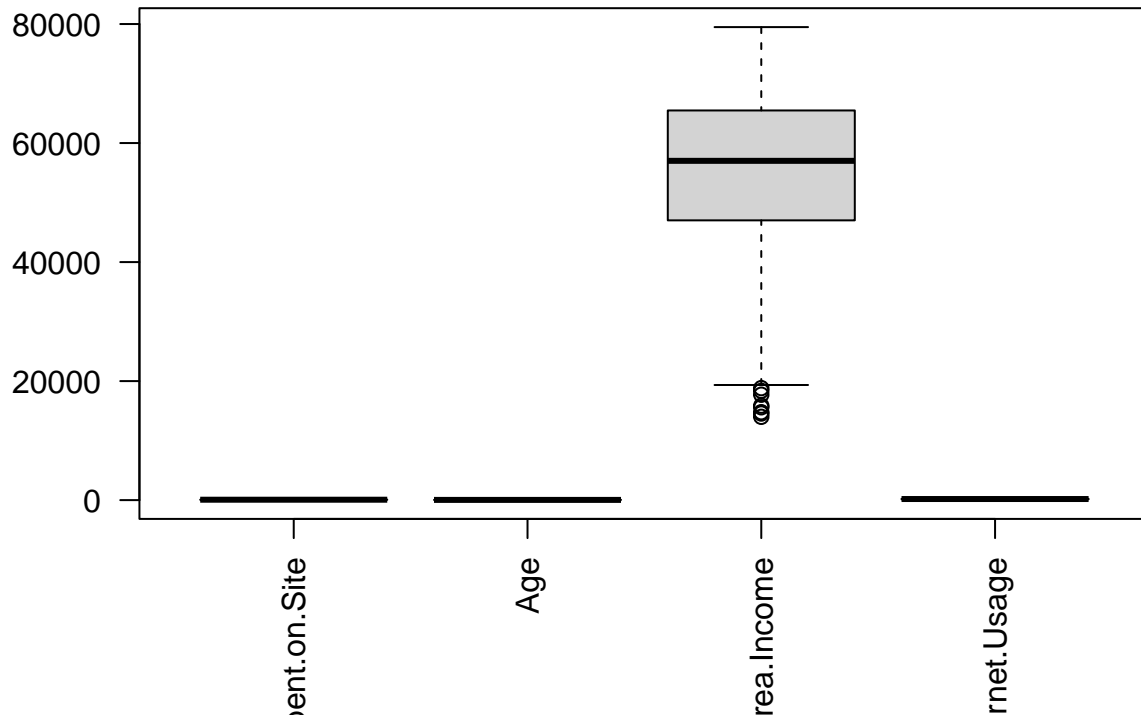

```
#Listing the outliers
boxplot.stats(advertising$Area.Income)$out
```

```
## [1] 17709.98 18819.34 15598.29 15879.10 14548.06 13996.50 14775.50 18368.57
```

```
#Plotting boxplots of individual columns so it's easier to observe
boxplot(advertising$Daily.Time.Spent.on.Site, main='Boxplot of Daily time spent on site', xlab='Daily Ti
```

Boxplot of Daily time spent on site
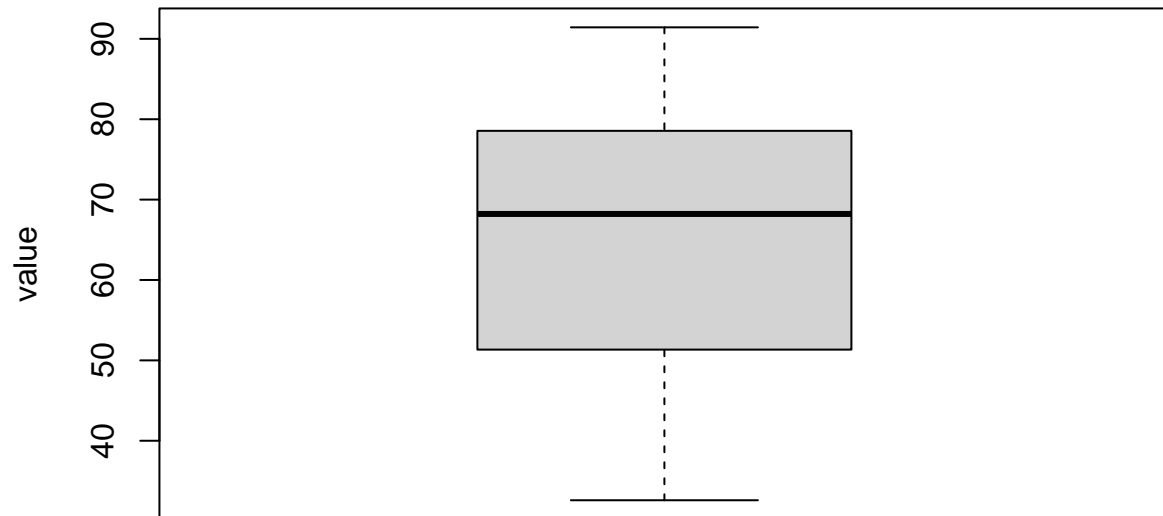
Daily Time spent on the site

```
boxplot(advertising$Age, main='Boxplot of age', xlab='Age', ylab='Value')
```

Boxplot of age

Age
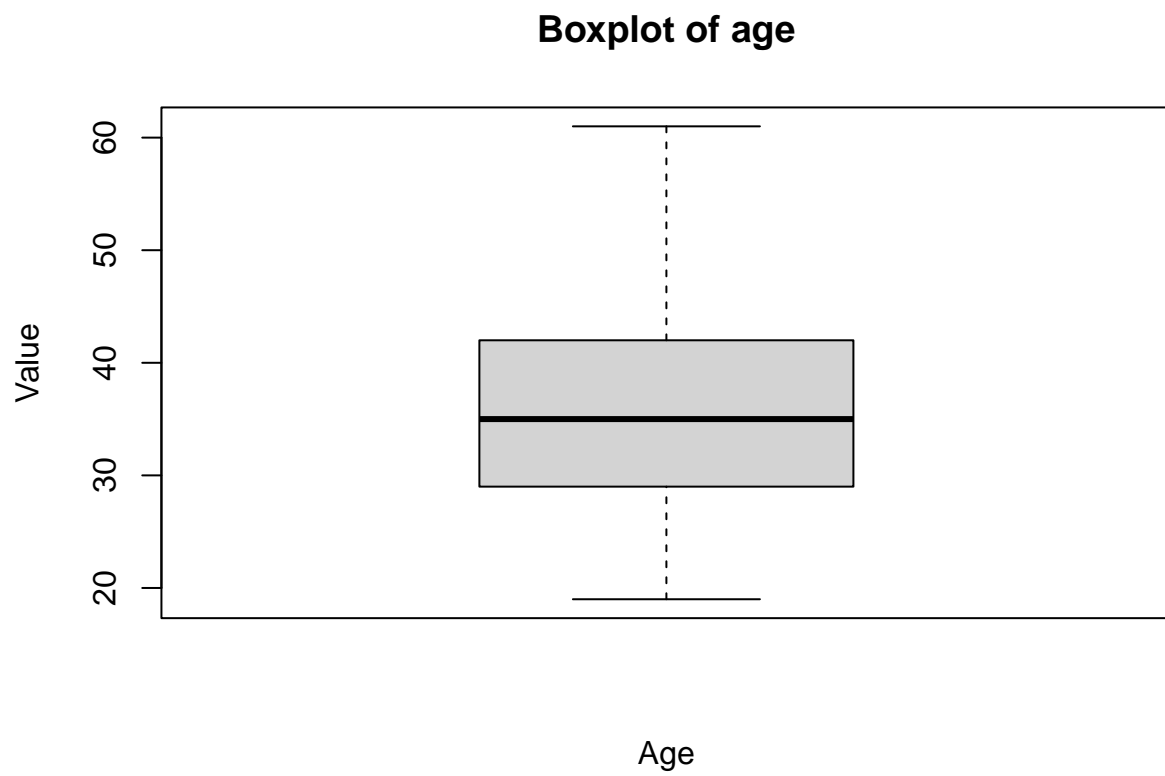
```
boxplot(advertising$Area.Income, main='Boxplot of area income', xlab='Area income', ylab='Value')
```

Boxplot of area income
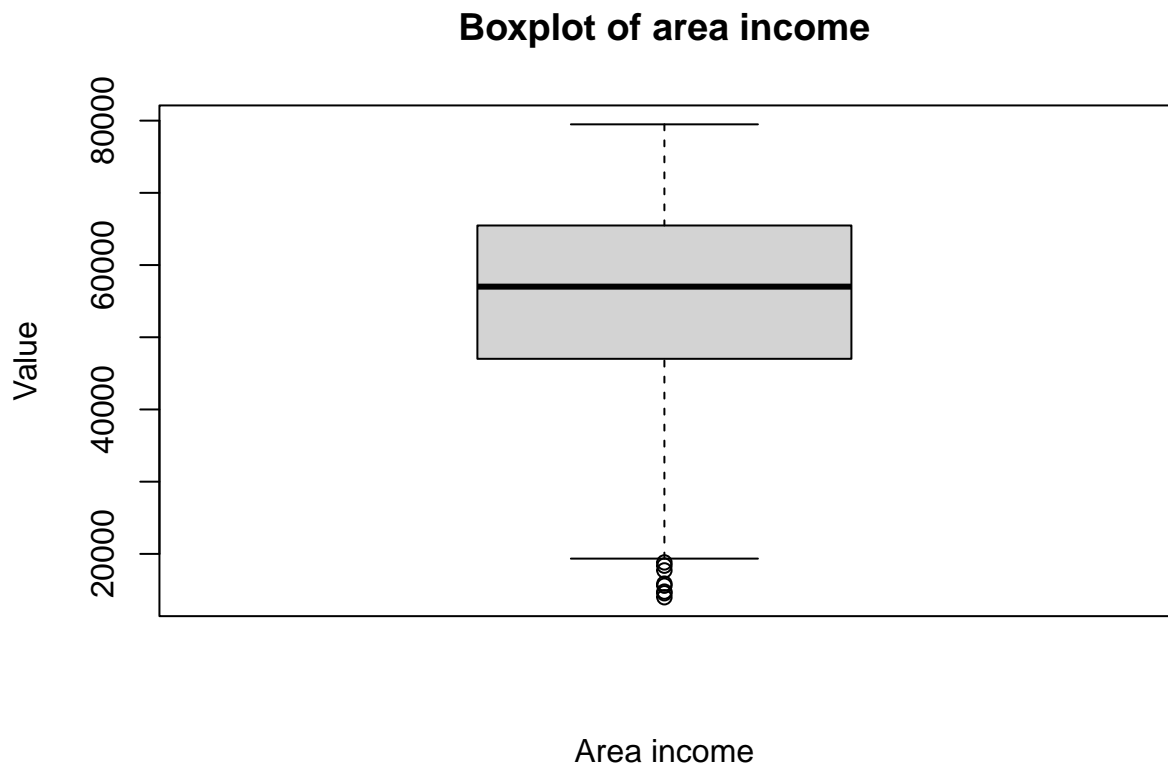
Area income

```
boxplot(advertising$Daily.Internet.Usage, main='Boxplot of Daily Internet Usage', xlab='Daily Internet U
```

Boxplot of Daily Internet Usage

Value

Daily Internet Usage
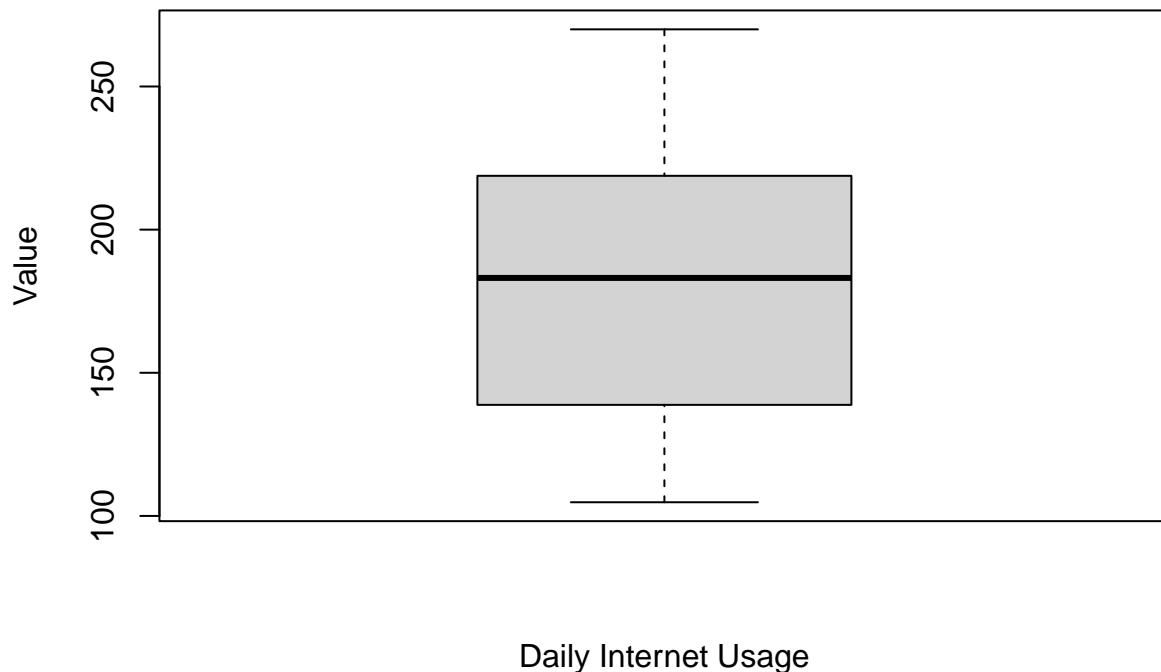
The outliers in area income might be due to low numbers of ad clicks so no need to remove them.

```
# checking the percentage of missing values for all variables
#plot_missing(advertising)
```

#5 Univariate Exploratory Data Analysis ## Measures of Central Tendancy

```
#Finding the mean
mean <- colMeans(advertising[sapply(advertising, is.numeric)])
print(mean)
```

```
## Daily.Time.Spent.on.Site                 Age         Area.Income
##                  65.0002             36.0090         55000.0001
##      Daily.Internet.Usage
##                 180.0001
```

```
#Finding the median
#loading the tidyverse and robustbase(for the colMedians function) libraries
library(robustbase)
```

```
##
## Attaching package: 'robustbase'

## The following object is masked from 'package:survival':
##
##     heart
```

```
library(tidyverse)
median <- advertising%>%
  select_if(is.numeric) %>%
  as.matrix()%>%
  colMedians()
print(median)
```

```
## Daily.Time.Spent.on.Site                 Age              Area.Income
##                  68.215              35.000                57012.300
##      Daily.Internet.Usage
##                 183.130
```

```
#Finding the mode
#mode <- function(x) {
 # uniq_data <- unique(x)
  #map_data <- match(x, uniq_data)
  #tab_data <- tabulate(map_data)
 # max_val <- max(tab_data)
  #uniq_data[tab_data == max_val]
#}
mode <- function(v) {
   uniqv <- unique(v)
   uniqv[which.max(tabulate(match(v, uniqv)))]
}
mode(advertising$Daily.Time.Spent.on.Site)
```

```
## [1] 62.26
```

```
mode(advertising$Age)
```

```
## [1] 31
```

```
mode(advertising$Area.Income)
```

```
## [1] 61833.9
```

```
mode(advertising$Daily.Internet.Usage)
```

```
## [1] 167.22
```

```
mode(advertising$Ad.Topic.Line)
```

```
## [1] "Cloned 5thgeneration orchestration"
```

```
mode(advertising$City)
```

```
## [1] "Lisamouth"
```

```
mode(advertising$Gender)
```

```
## NULL
```

```
mode(advertising$Country)
```

```
## [1] "Czech Republic"
```

```
mode(advertising$Year)
```

```
## [1] 2016
## Levels: 2016
```

```
mode(advertising$Month)
```

```
## [1] 02
## Levels: 01 02 03 04 05 06 07
```

```
mode(advertising$Day)
```

```
## [1] 03
## 31 Levels: 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 ... 31
```

```
mode(advertising$Hour)
```

```
## [1] 07
## 24 Levels: 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 ... 23
```

```
mode(advertising$Clicked.on.Ad)
```

```
## [1] 0
## Levels: 0 1
```

```
Daily time spent on site- 68.215 minutes
Age- 35years
area income- 57012.3
Daily internet usage- 183.13 minutes
```

Measures of Dispersion

```
#Finding the minimum
num.cols <- list(advertising$Daily.Time.Spent.on.Site,advertising$Age,
advertising$Area.Income,advertising$Daily.Internet.Usage)
min(advertising$Daily.Time.Spent.on.Site)
```

```
## [1] 32.6
```

```
min(advertising$Age)
```

```
## [1] 19
```

```
min(advertising$Area.Income)
```

```
## [1] 13996.5
```

```
min(advertising$Daily.Internet.Usage)
```

```
## [1] 104.78
```

```
#Finding the maximum
max(advertising$Daily.Time.Spent.on.Site)
```

```
## [1] 91.43
```

```
max(advertising$Age)
```

```
## [1] 61
```

```
max(advertising$Area.Income)
```

```
## [1] 79484.8
```

```
max(advertising$Daily.Internet.Usage)
```

```
## [1] 269.96
```

```
#Finding the Range
range(advertising$Daily.Time.Spent.on.Site)
```

```
## [1] 32.60 91.43
```

```
range(advertising$Age)
```

```
## [1] 19 61
```

```
range(advertising$Area.Income)
```

```
## [1] 13996.5 79484.8
```

```
range(advertising$Daily.Internet.Usage)
```

```
## [1] 104.78 269.96
```

```r
#Finding the quantiles
quantile(advertising$Daily.Time.Spent.on.Site)
```

```
##      0%     25%     50%     75%    100%
## 32.6000 51.3600 68.2150 78.5475 91.4300
```

```r
quantile(advertising$Age)
```

```
##   0%  25%  50%  75% 100%
##   19   29   35   42   61
```

```r
quantile(advertising$Area.Income)
```

```
##        0%       25%       50%       75%      100%
## 13996.50 47031.80 57012.30 65470.64 79484.80
```

```r
quantile(advertising$Daily.Internet.Usage)
```

```
##       0%      25%      50%      75%     100%
## 104.7800 138.8300 183.1300 218.7925 269.9600
```

```r
#Finding the variance
var(advertising$Daily.Time.Spent.on.Site)
```

```
## [1] 251.3371
```

```r
var(advertising$Age)
```

```
## [1] 77.18611
```

```r
var(advertising$Area.Income)
```

```
## [1] 179952406
```

```r
#Finding the Standard Deviation
sd(advertising$Daily.Time.Spent.on.Site)
```

```
## [1] 15.85361
```

```r
sd(advertising$Age)
```

```
## [1] 8.785562
```

```r
sd(advertising$Area.Income)
```

```
## [1] 13414.63
```

```
sd(advertising$Daily.Internet.Usage)
```

[1] 43.90234

```
#Finding skewness
skewness(advertising$Daily.Time.Spent.on.Site)
```

[1] -0.370646

```
skewness(advertising$Age)
```

[1] 0.4777052

```
skewness(advertising$Area.Income)
```

[1] -0.6484229

```
skewness(advertising$Daily.Internet.Usage)
```

[1] -0.03343681

```
#Finding Kurtosis
kurtosis(advertising$Daily.Time.Spent.on.Site)
```

[1] -1.099864

```
kurtosis(advertising$Age)
```

[1] -0.4097066

```
kurtosis(advertising$Area.Income)
```

[1] -0.1110924

```
kurtosis(advertising$Daily.Internet.Usage)
```

[1] -1.275752

```
#renaming dataframe
IPAdvertisingData <- advertising
# plotting
ggplot(IPAdvertisingData) +
  aes(x = "", y = Daily.Time.Spent.on.Site) +
  geom_boxplot(fill = "#FFB6C1") +
  theme_minimal()
```
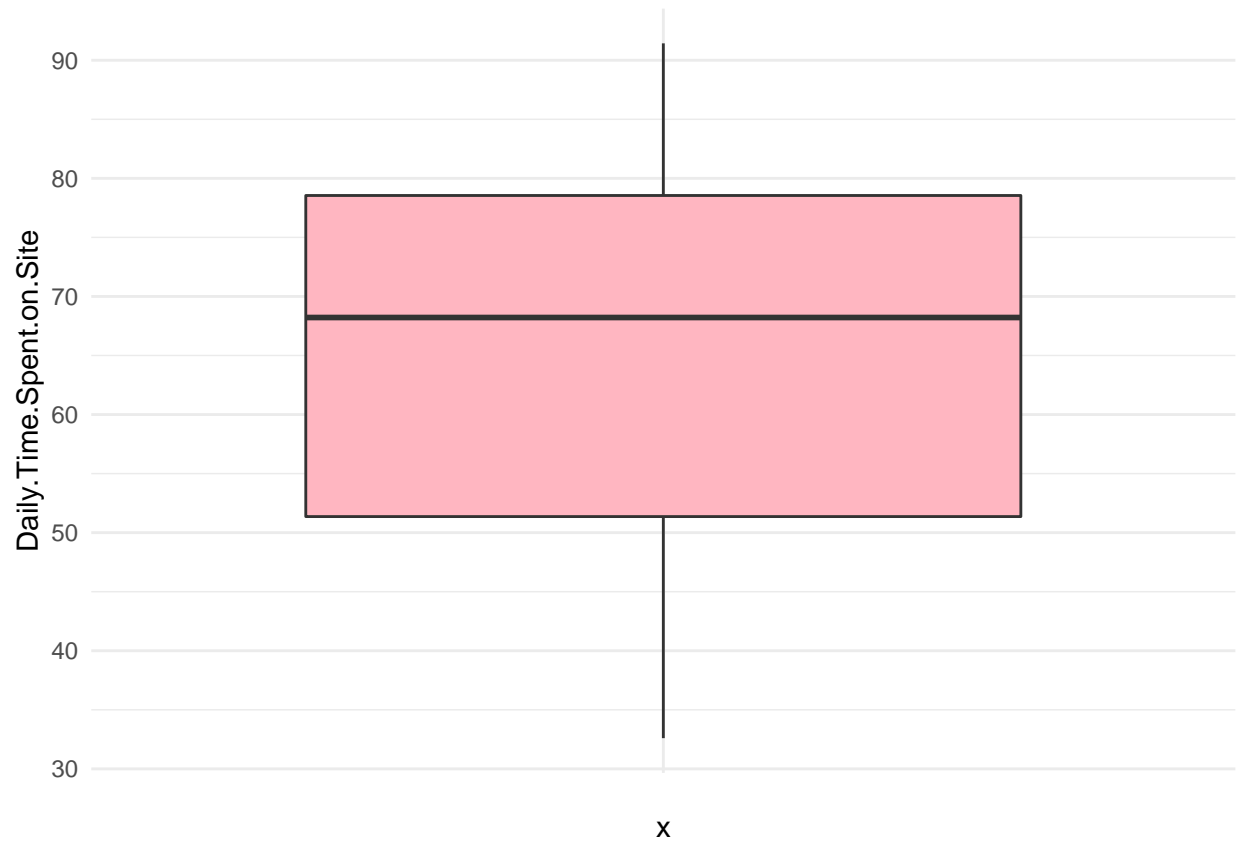
```r
# Daily time pent on the site comparison by gender
IPAdvertisingData %>%
  ggplot(aes(x=Male,y=Daily.Time.Spent.on.Site))+
  geom_boxplot(fill='lightblue')+
  xlab("Sex")+
  ylab("Daily time spent on site")+
  facet_grid(~Clicked.on.Ad)
```
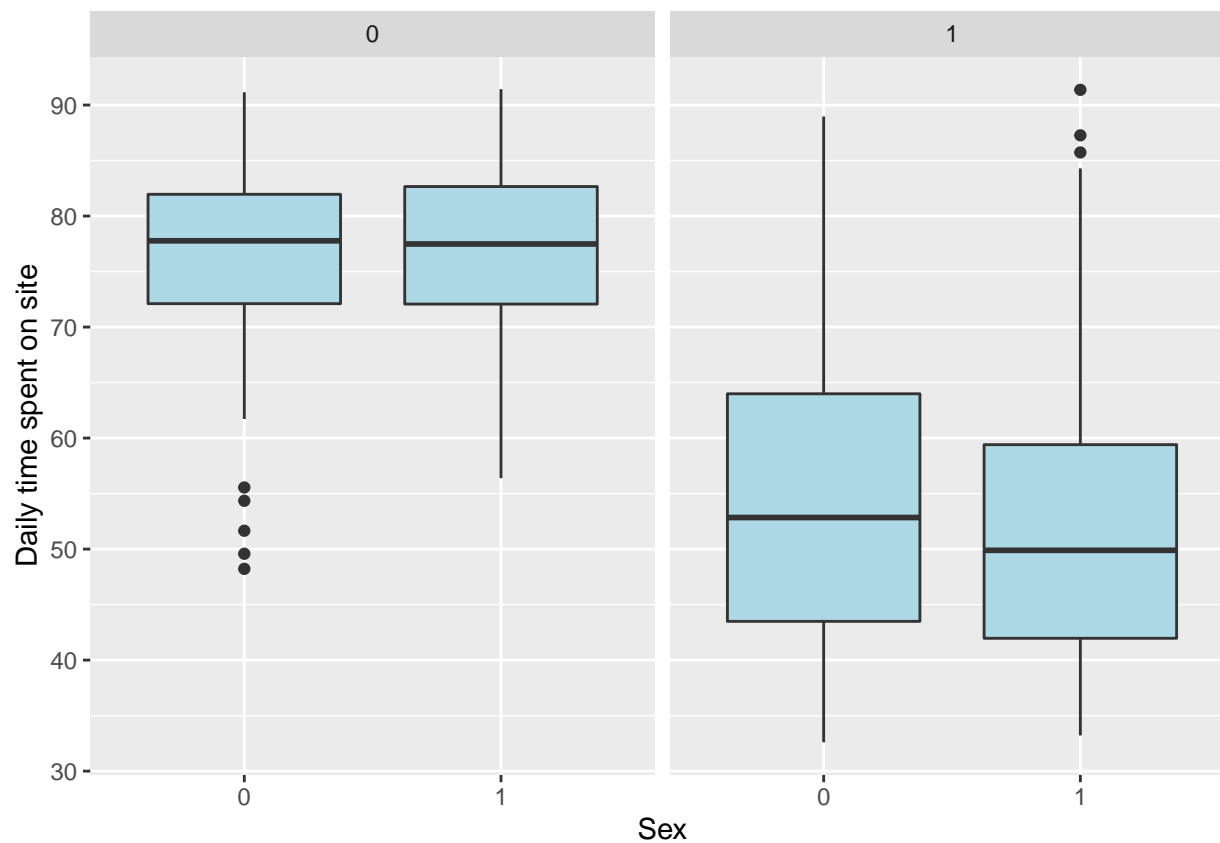
```
#comparison of month and clicked on ad

month_frequency <- table(IPAdvertisingData$Month)
#plotting bar chart of months column
options(repr.plot.width = 10, repr.plot.height = 10)
barplot(c(month_frequency), main="Month frequency.",
        xlab="month",
        ylab="frequency",
        cex.main=2, cex.lab=1.7,cex.sub=1.2,
        width=c(30,30),
        col=c("violet"))
```

Month frequency.
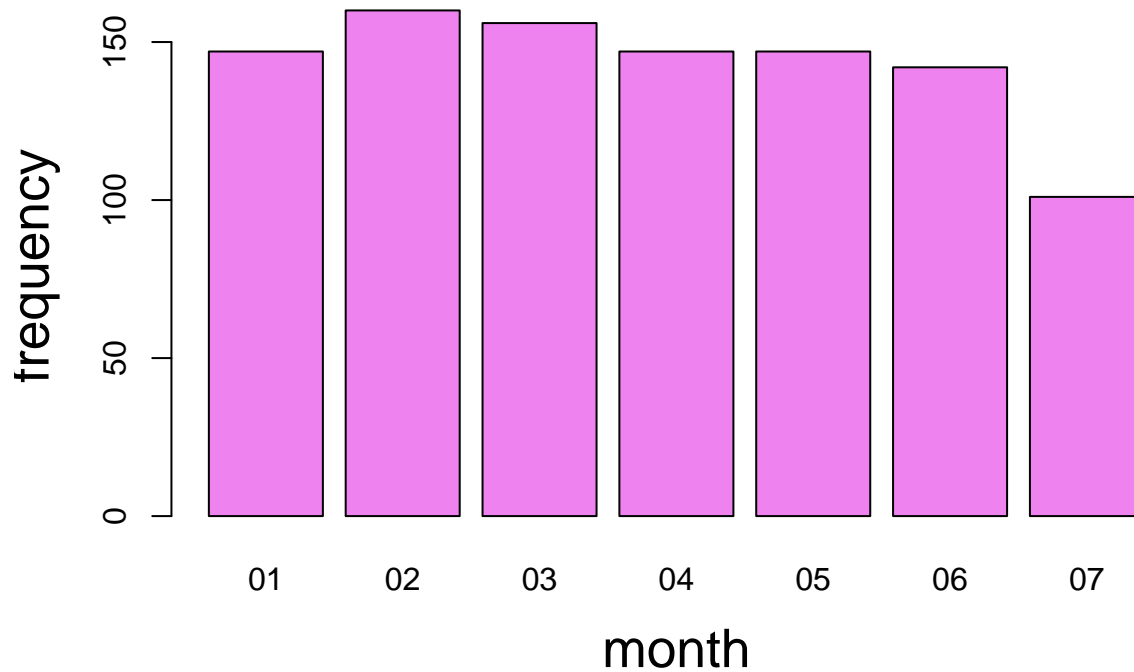

```
# Converting 0,1 to Female, Male so visualization's better
IPAdvertisingData <- IPAdvertisingData %>%
  mutate(Clicked.on.Ad = if_else(Clicked.on.Ad == 1, "CLICKED", "NOT_CLICKED"))
```

```
# Daily time pent on the site comparison by gender and age
IPAdvertisingData %>%
  ggplot(aes(x=Male,y=Daily.Time.Spent.on.Site, group=Male))+
  geom_boxplot(fill='pink')+
  xlab("Sex")+
  ylab("Daily time spent on site")+
  facet_grid(~Clicked.on.Ad)
```
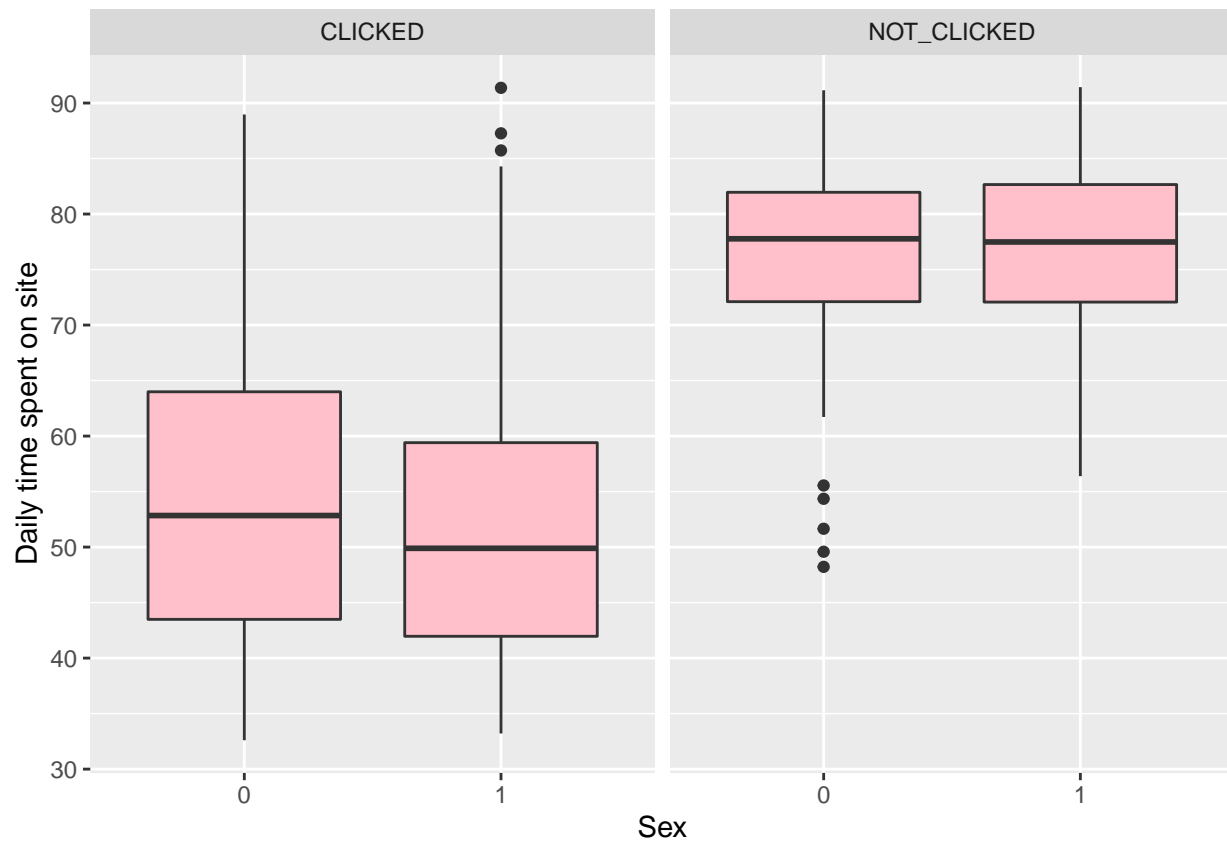
```
# Counting the age distribution
IPAdvertisingData %>%
  group_by(Age) %>%
  count() %>%
  filter(n > 10) %>%
  ggplot()+
  geom_col(aes(Age, n), fill = "lightblue")+
  ggtitle("Age Distribution") +
  xlab("Age")  +
  ylab("Age Count")
```

Age Distribution
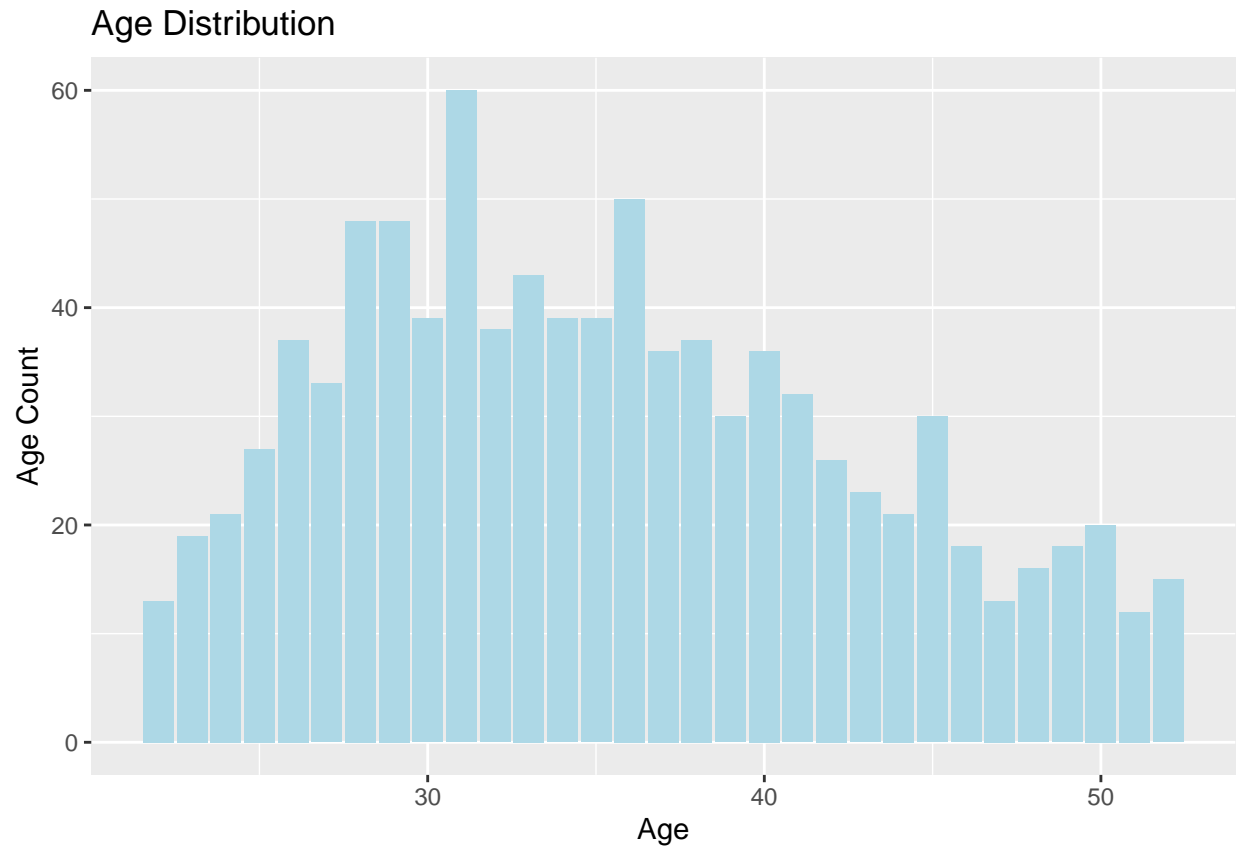

```
# bivariate analsis on Age, Gender and Daily internet Usage
IPAdvertisingData %>%
  ggplot(aes(x=Age,y=Daily.Internet.Usage,color=Male, size=Daily.Internet.Usage))+
  geom_point(alpha=0.7)+xlab("Age") +
  ylab("Daily Internet Usage")+
  guides(fill = guide_legend(title = "Gender"))
```
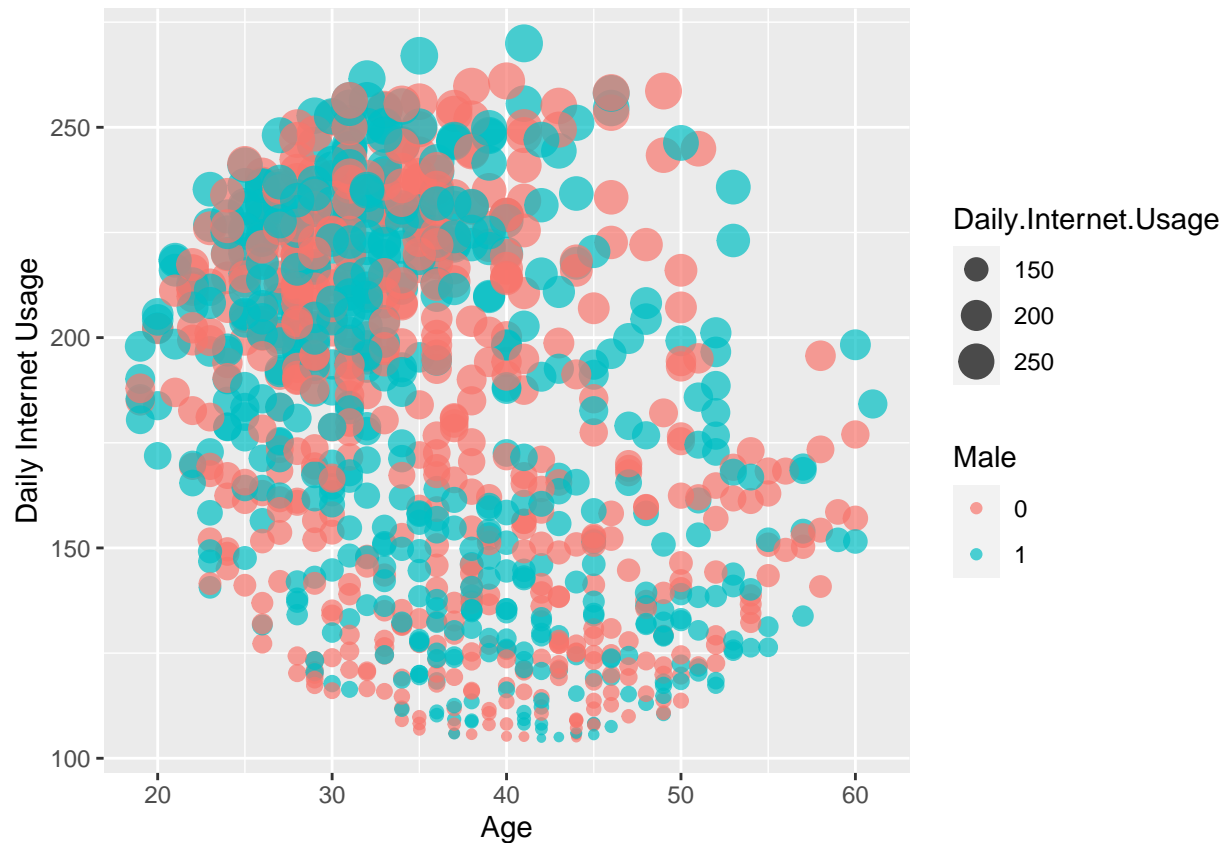
gender seems to be a neutral feature when it comes to daily internet usage unlike age

```
corr <- cor(IPAdvertisingData%>% select_if(is.numeric))
corr
```

```
##                          Daily.Time.Spent.on.Site        Age Area.Income
## Daily.Time.Spent.on.Site                1.0000000 -0.3315133   0.3109544
## Age                                    -0.3315133  1.0000000  -0.1826050
## Area.Income                             0.3109544 -0.1826050   1.0000000
## Daily.Internet.Usage                    0.5186585 -0.3672086   0.3374955
##                          Daily.Internet.Usage
## Daily.Time.Spent.on.Site            0.5186585
## Age                                -0.3672086
## Area.Income                         0.3374955
## Daily.Internet.Usage                1.0000000
```

```
#corrplot(corr, method = "ellipse", type="upper",)
```

```
p.mat <- cor_pmat(corr, method = "spearman")
ggcorrplot(corr, method = "square", type = "upper",
           colors = c("#6D9EC1", "white", "#E46726"),
           lab = TRUE, p.mat=p.mat, sig.level = .05)
```
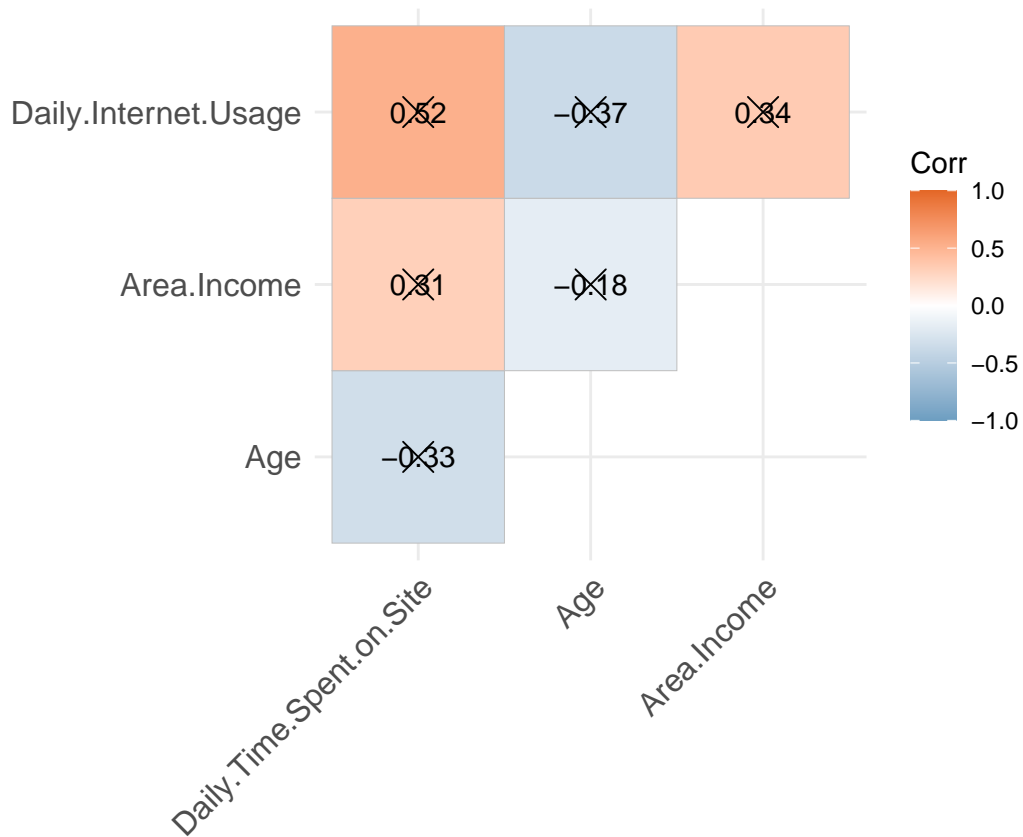
Daily internet usage and daily time spent on site are positively correlated while
daily internet usage are negatively correlated

```
ggplot(IPAdvertisingData, aes(x = Age, y = Daily.Internet.Usage, color = Clicked.on.Ad, shape = Clicked
  geom_point()+
  geom_smooth(se = FALSE);
```

```
## 'geom_smooth()' using method = 'loess' and formula 'y ~ x'
```
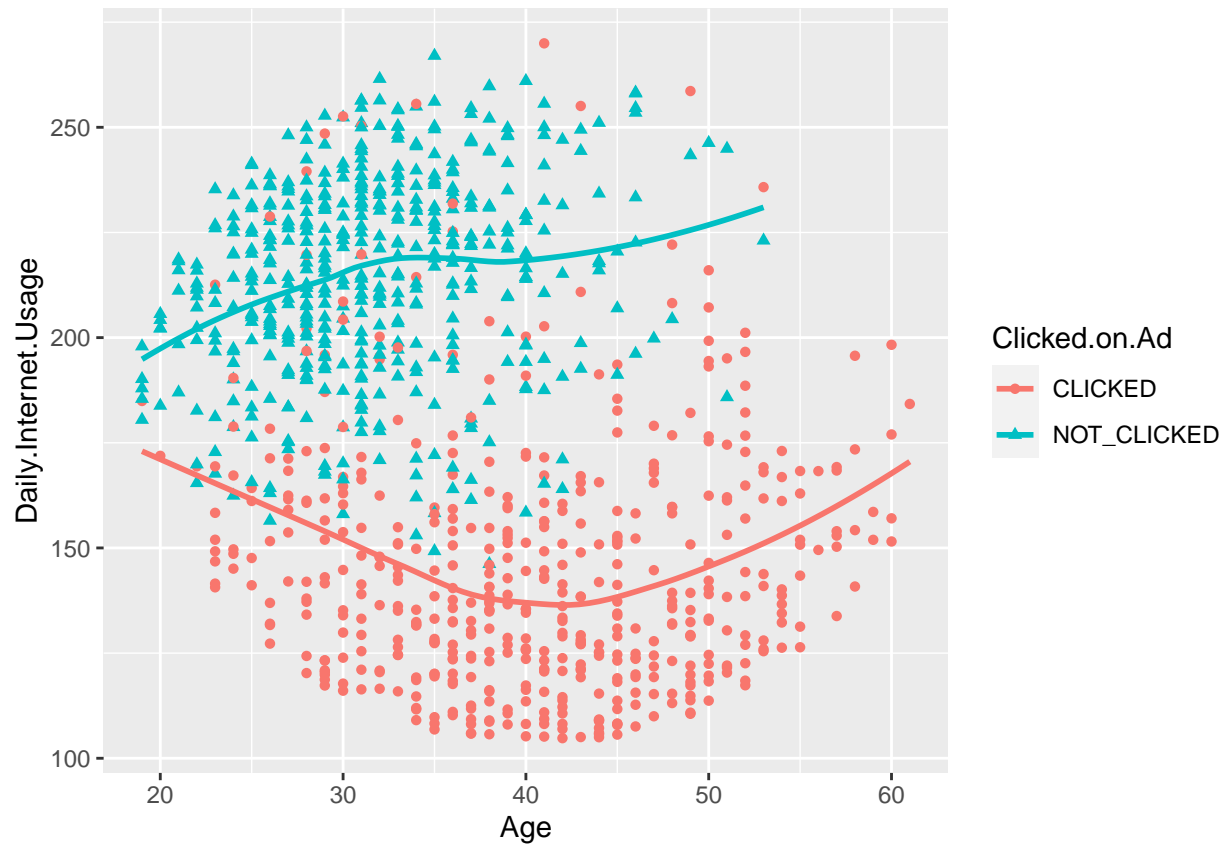
Observations: majority of the people who actualy clicked on the ad had a surprisingly low
daily internet usage and most were above the age of 40

```
ggplot(IPAdvertisingData, aes(x = Age, y = Daily.Time.Spent.on.Site, color = Clicked.on.Ad, shape = Cli
  geom_point()+
  geom_smooth(se = FALSE);
```

```
## 'geom_smooth()' using method = 'loess' and formula 'y ~ x'
```
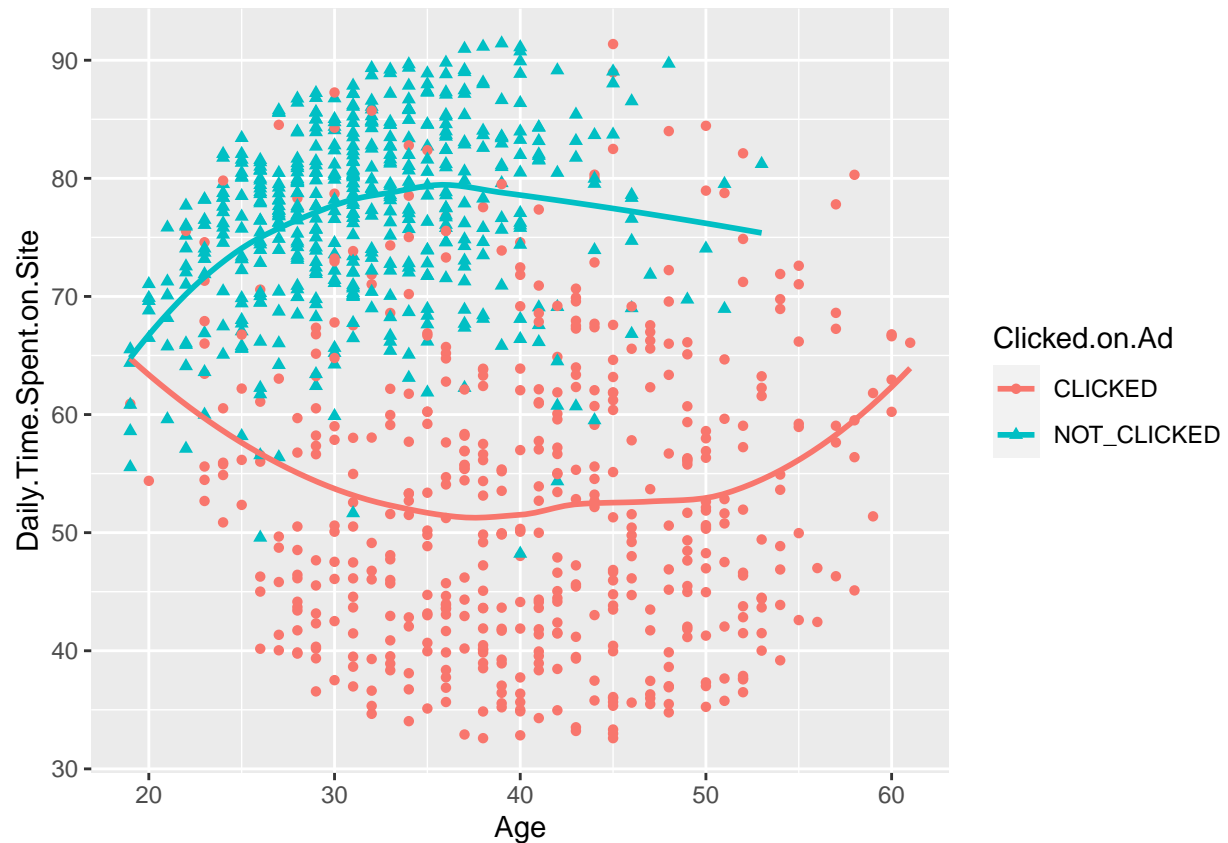
#7. Modeling

Feature Engineering

```
advertising<-IPAdvertisingData
head(advertising)
```

```
##   Daily.Time.Spent.on.Site Age Area.Income Daily.Internet.Usage
## 1                    68.95  35    61833.90               256.09
## 2                    80.23  31    68441.85               193.77
## 3                    69.47  26    59785.94               236.50
## 4                    74.15  29    54806.18               245.89
## 5                    68.37  35    73889.99               225.58
## 6                    59.99  23    59761.56               226.74
##                             Ad.Topic.Line           City Male    Country
## 1        Cloned 5thgeneration orchestration    Wrightburgh    0    Tunisia
## 2        Monitored national standardization      West Jodi    1      Nauru
## 3           Organic bottom-line service-desk       Davidton    0 San Marino
## 4 Triple-buffered reciprocal time-frame West Terrifurt    1      Italy
## 5            Robust logistical utilization   South Manuel    0    Iceland
## 6             Sharable client-driven software     Jamieberg    1     Norway
##   Clicked.on.Ad Year Month Day Hour
## 1   NOT_CLICKED 2016    03  27   00
## 2   NOT_CLICKED 2016    04  04   01
## 3   NOT_CLICKED 2016    03  13   20
```

```
## 4    NOT_CLICKED 2016    01  10    02
## 5    NOT_CLICKED 2016    06  03    03
## 6    NOT_CLICKED 2016    05  19    14
```

```
#dropping the year, country, city and ad topic line columns
advertising$Ad.Topic.Line <- NULL
advertising$City <- NULL
advertising$Country <- NULL
advertising$Year <- NULL
head(advertising)
```

```
##   Daily.Time.Spent.on.Site Age Area.Income Daily.Internet.Usage Male
## 1                    68.95  35    61833.90               256.09    0
## 2                    80.23  31    68441.85               193.77    1
## 3                    69.47  26    59785.94               236.50    0
## 4                    74.15  29    54806.18               245.89    1
## 5                    68.37  35    73889.99               225.58    0
## 6                    59.99  23    59761.56               226.74    1
##   Clicked.on.Ad Month Day Hour
## 1   NOT_CLICKED    03  27   00
## 2   NOT_CLICKED    04  04   01
## 3   NOT_CLICKED    03  13   20
## 4   NOT_CLICKED    01  10   02
## 5   NOT_CLICKED    06  03   03
## 6   NOT_CLICKED    05  19   14
```

```
advertising[,7:9] <- sapply(advertising[,7:9], as.character)
advertising[,7:9] <- sapply(advertising[,7:9], as.numeric)
head(advertising)
```

```
##   Daily.Time.Spent.on.Site Age Area.Income Daily.Internet.Usage Male
## 1                    68.95  35    61833.90               256.09    0
## 2                    80.23  31    68441.85               193.77    1
## 3                    69.47  26    59785.94               236.50    0
## 4                    74.15  29    54806.18               245.89    1
## 5                    68.37  35    73889.99               225.58    0
## 6                    59.99  23    59761.56               226.74    1
##   Clicked.on.Ad Month Day Hour
## 1   NOT_CLICKED     3  27    0
## 2   NOT_CLICKED     4   4    1
## 3   NOT_CLICKED     3  13   20
## 4   NOT_CLICKED     1  10    2
## 5   NOT_CLICKED     6   3    3
## 6   NOT_CLICKED     5  19   14
```

```
advertising$Male <- as.numeric(as.character(advertising$Male))
head(advertising)
```

```
##   Daily.Time.Spent.on.Site Age Area.Income Daily.Internet.Usage Male
## 1                    68.95  35    61833.90               256.09    0
## 2                    80.23  31    68441.85               193.77    1
## 3                    69.47  26    59785.94               236.50    0
```

```
## 4                          74.15   29    54806.18              245.89    1
## 5                          68.37   35    73889.99              225.58    0
## 6                          59.99   23    59761.56              226.74    1
##    Clicked.on.Ad Month Day Hour
## 1    NOT_CLICKED     3  27     0
## 2    NOT_CLICKED     4   4     1
## 3    NOT_CLICKED     3  13    20
## 4    NOT_CLICKED     1  10     2
## 5    NOT_CLICKED     6   3     3
## 6    NOT_CLICKED     5  19    14
```

```r
# Normalizing the dataset so that no particular attribute
# has more impact on modeling algorithm than others.
normalize <- function(x){
  return ((x-min(x)) / (max(x)-min(x)))
}
#data$Age<- normalize(data$Age)
advertising$Area.Income<- normalize(advertising$Area.Income)
advertising$Daily.Internet.Usage<- normalize(advertising$Daily.Internet.Usage)
advertising$Daily.Time.Spent.on.Site<- normalize(advertising$Daily.Time.Spent.on.Site)
advertising$Day<- normalize(advertising$Day)
advertising$Male<- normalize(advertising$Male)
advertising$Month<- normalize(advertising$Month)
advertising$Hour<- normalize(advertising$Hour)
advertising$Age<- normalize(advertising$Age)
head(advertising)
```

```
##    Daily.Time.Spent.on.Site       Age Area.Income Daily.Internet.Usage Male
## 1                 0.6178820 0.3809524   0.7304725            0.9160310    0
## 2                 0.8096209 0.2857143   0.8313752            0.5387456    1
## 3                 0.6267211 0.1666667   0.6992003            0.7974331    0
## 4                 0.7062723 0.2380952   0.6231599            0.8542802    1
## 5                 0.6080231 0.3809524   0.9145678            0.7313234    0
## 6                 0.4655788 0.0952381   0.6988280            0.7383460    1
##    Clicked.on.Ad     Month       Day       Hour
## 1    NOT_CLICKED 0.3333333 0.86666667 0.00000000
## 2    NOT_CLICKED 0.5000000 0.10000000 0.04347826
## 3    NOT_CLICKED 0.3333333 0.40000000 0.86956522
## 4    NOT_CLICKED 0.0000000 0.30000000 0.08695652
## 5    NOT_CLICKED 0.8333333 0.06666667 0.13043478
## 6    NOT_CLICKED 0.6666667 0.60000000 0.60869565
```

```r
advertising$Geder <- NULL
head(advertising)
```

```
##    Daily.Time.Spent.on.Site       Age Area.Income Daily.Internet.Usage Male
## 1                 0.6178820 0.3809524   0.7304725            0.9160310    0
## 2                 0.8096209 0.2857143   0.8313752            0.5387456    1
## 3                 0.6267211 0.1666667   0.6992003            0.7974331    0
## 4                 0.7062723 0.2380952   0.6231599            0.8542802    1
## 5                 0.6080231 0.3809524   0.9145678            0.7313234    0
## 6                 0.4655788 0.0952381   0.6988280            0.7383460    1
##    Clicked.on.Ad     Month       Day       Hour
```

```
## 1   NOT_CLICKED 0.3333333 0.86666667 0.00000000
## 2   NOT_CLICKED 0.5000000 0.10000000 0.04347826
## 3   NOT_CLICKED 0.3333333 0.40000000 0.86956522
## 4   NOT_CLICKED 0.0000000 0.30000000 0.08695652
## 5   NOT_CLICKED 0.8333333 0.06666667 0.13043478
## 6   NOT_CLICKED 0.6666667 0.60000000 0.60869565
```

Decision Trees

```r
#Loading libraries
library(rpart,quietly = TRUE)
library(caret,quietly = TRUE)
library(rpart.plot,quietly = TRUE)
library(rattle)
```

```
## Loading required package: bitops
```

```
##
## Attaching package: 'bitops'
```

```
## The following object is masked from 'package:Matrix':
##
##      %&%
```

```
## Rattle: A free graphical interface for data science with R.
## Version 5.5.1 Copyright (c) 2006-2021 Togaware Pty Ltd.
## Type 'rattle()' to shake, rattle, and roll your data.
```

```
##
## Attaching package: 'rattle'
```

```
## The following object is masked from 'package:randomForest':
##
##      importance
```

```r
#data splicing
set.seed(123)
train <- sample(1:nrow(advertising),size = ceiling(0.80*nrow(advertising)),replace = FALSE)
# training set
ad_train <- advertising[train,]
# test set
ad_test <- advertising[-train,]
```

```r
#Penalty matrix
penalty.matrix <- matrix(c(0, 1, 10,0), byrow = TRUE, nrow = 2)
#Building our model
tree <- rpart(Clicked.on.Ad ~., data = ad_train, parms=list(loss=penalty.matrix), method = 'class')
tree
```

```
## n= 800
##
## node), split, n, loss, yval, (yprob)
##       * denotes terminal node
##
##  1) root 800 411 NOT_CLICKED (0.513750000 0.486250000)
##    2) Daily.Internet.Usage< 0.312447 295  20 CLICKED (0.993220339 0.006779661)
##      4) Daily.Time.Spent.on.Site< 0.8295088 288   0 CLICKED (1.000000000 0.000000000) *
##      5) Daily.Time.Spent.on.Site>=0.8295088 7   5 NOT_CLICKED (0.714285714 0.285714286) *
##    3) Daily.Internet.Usage>=0.312447 505 118 NOT_CLICKED (0.233663366 0.766336634)
##      6) Daily.Time.Spent.on.Site< 0.2607513 71   0 CLICKED (1.000000000 0.000000000) *
##      7) Daily.Time.Spent.on.Site>=0.2607513 434  47 NOT_CLICKED (0.108294931 0.891705069)
##       14) Area.Income< 0.2793019 15   0 CLICKED (1.000000000 0.000000000) *
##       15) Area.Income>=0.2793019 419  32 NOT_CLICKED (0.076372315 0.923627685) *
```

```
#visualizing the tree
rpart.plot(tree, nn=TRUE)
```
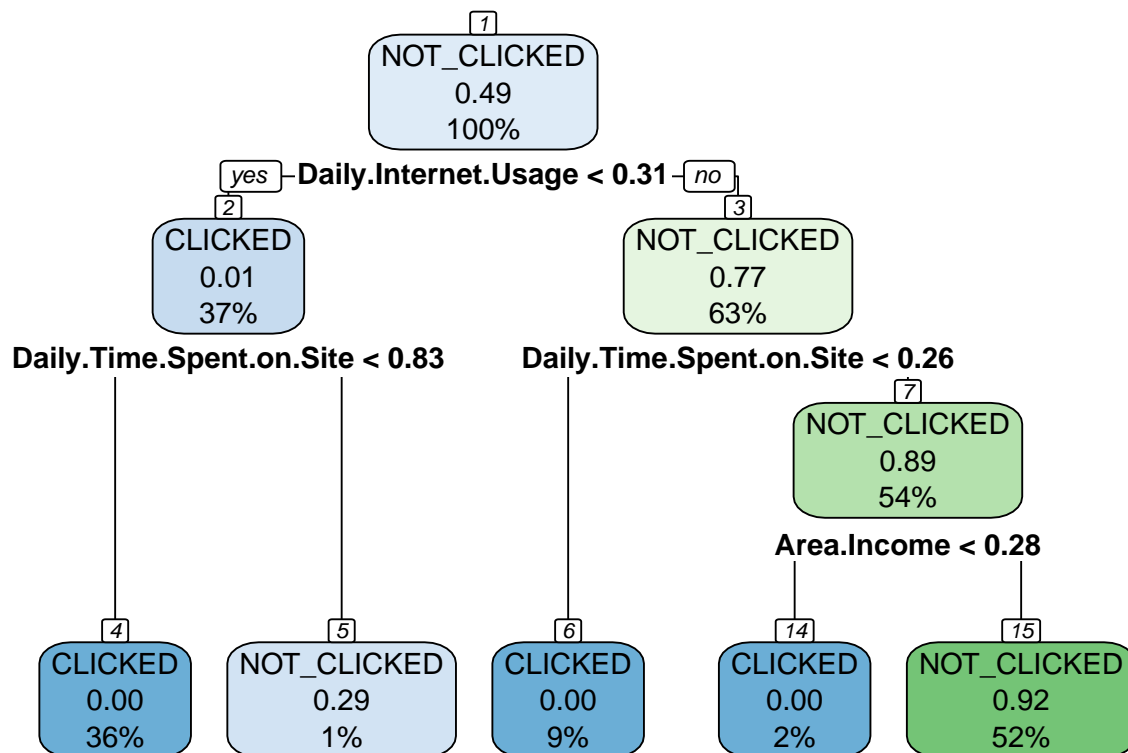


```
#making predictions with our model
pred <- predict(object = tree, ad_test[,-6], type = 'class')
#calculating accuracy
t <- table(ad_test$Clicked.on.Ad, pred)
confusionMatrix(t)
```

Confusion Matrix and Statistics

```
##
##               pred
##                CLICKED NOT_CLICKED
##    CLICKED           80           9
##    NOT_CLICKED        1         110
##
##               Accuracy : 0.95
##                 95% CI : (0.91, 0.9758)
##    No Information Rate : 0.595
##    P-Value [Acc > NIR] : < 2e-16
##
##                  Kappa : 0.8979
##
##  Mcnemar's Test P-Value : 0.02686
##
##            Sensitivity : 0.9877
##            Specificity : 0.9244
##         Pos Pred Value : 0.8989
##         Neg Pred Value : 0.9910
##             Prevalence : 0.4050
##         Detection Rate : 0.4000
##   Detection Prevalence : 0.4450
##      Balanced Accuracy : 0.9560
##
##       'Positive' Class : CLICKED
##
```

#8. Challenging the solution

SVM

```r
library('caret')
intrain <- createDataPartition(y = advertising$Clicked.on.Ad, p= 0.7, list = FALSE)
training <- advertising[intrain,]
testing <- advertising[-intrain,]
dim(training)
```

```
## [1] 700   9
```

```r
dim(testing)
```

```
## [1] 300   9
```

```r
#building our model
#
trctrl <- trainControl(method = "repeatedcv", number = 10, repeats = 3)
svm_Linear <- train(Clicked.on.Ad ~., data = training, method = "svmLinear",
trControl=trctrl,
preProcess = c("center", "scale"),
tuneLength = 10)
svm_Linear
```

```
## Support Vector Machines with Linear Kernel
##
## 700 samples
##    8 predictor
##    2 classes: 'CLICKED', 'NOT_CLICKED'
##
## Pre-processing: centered (8), scaled (8)
## Resampling: Cross-Validated (10 fold, repeated 3 times)
## Summary of sample sizes: 630, 630, 630, 630, 630, 630, ...
## Resampling results:
##
##    Accuracy   Kappa
##    0.9766667  0.9533333
##
## Tuning parameter 'C' was held constant at a value of 1
```

```
#making predictions
test_pred <- predict(svm_Linear, newdata = testing)
```

```
#checking accuracy of model
confusionMatrix(table(test_pred, testing$Clicked.on.Ad))
```

```
## Confusion Matrix and Statistics
##
##
## test_pred     CLICKED NOT_CLICKED
##    CLICKED        142           4
##    NOT_CLICKED      8         146
##
##                Accuracy : 0.96
##                  95% CI : (0.9312, 0.9792)
##     No Information Rate : 0.5
##     P-Value [Acc > NIR] : <2e-16
##
##                   Kappa : 0.92
##
##  Mcnemar's Test P-Value : 0.3865
##
##             Sensitivity : 0.9467
##             Specificity : 0.9733
##          Pos Pred Value : 0.9726
##          Neg Pred Value : 0.9481
##              Prevalence : 0.5000
##          Detection Rate : 0.4733
##    Detection Prevalence : 0.4867
##       Balanced Accuracy : 0.9600
##
##        'Positive' Class : CLICKED
##
```

```
#Hyperparameter tuning
grid <- expand.grid(C = c(0,0.01, 0.05, 0.1, 0.25, 0.5, 0.75, 1, 1.25, 1.5, 1.75, 2,5))
svm_Linear_Grid <- train(Clicked.on.Ad ~., data = training, method = "svmLinear",
```

```
trControl=trctrl,
preProcess = c("center", "scale"),
tuneGrid = grid,
tuneLength = 10)
```

Warning: model fit failed for Fold01.Rep1: C=0.00 Error in .local(x, ...) :
No Support Vectors found. You may want to change your parameters

Warning: model fit failed for Fold02.Rep1: C=0.00 Error in .local(x, ...) :
No Support Vectors found. You may want to change your parameters

Warning: model fit failed for Fold03.Rep1: C=0.00 Error in .local(x, ...) :
No Support Vectors found. You may want to change your parameters

Warning: model fit failed for Fold04.Rep1: C=0.00 Error in .local(x, ...) :
No Support Vectors found. You may want to change your parameters

Warning: model fit failed for Fold05.Rep1: C=0.00 Error in .local(x, ...) :
No Support Vectors found. You may want to change your parameters

Warning: model fit failed for Fold06.Rep1: C=0.00 Error in .local(x, ...) :
No Support Vectors found. You may want to change your parameters

Warning: model fit failed for Fold07.Rep1: C=0.00 Error in .local(x, ...) :
No Support Vectors found. You may want to change your parameters

Warning: model fit failed for Fold08.Rep1: C=0.00 Error in .local(x, ...) :
No Support Vectors found. You may want to change your parameters

Warning: model fit failed for Fold09.Rep1: C=0.00 Error in .local(x, ...) :
No Support Vectors found. You may want to change your parameters

Warning: model fit failed for Fold10.Rep1: C=0.00 Error in .local(x, ...) :
No Support Vectors found. You may want to change your parameters

Warning: model fit failed for Fold01.Rep2: C=0.00 Error in .local(x, ...) :
No Support Vectors found. You may want to change your parameters

Warning: model fit failed for Fold02.Rep2: C=0.00 Error in .local(x, ...) :
No Support Vectors found. You may want to change your parameters

Warning: model fit failed for Fold03.Rep2: C=0.00 Error in .local(x, ...) :
No Support Vectors found. You may want to change your parameters

Warning: model fit failed for Fold04.Rep2: C=0.00 Error in .local(x, ...) :
No Support Vectors found. You may want to change your parameters

Warning: model fit failed for Fold05.Rep2: C=0.00 Error in .local(x, ...) :
No Support Vectors found. You may want to change your parameters

```
## Warning: model fit failed for Fold06.Rep2: C=0.00 Error in .local(x, ...) :
##   No Support Vectors found. You may want to change your parameters

## Warning: model fit failed for Fold07.Rep2: C=0.00 Error in .local(x, ...) :
##   No Support Vectors found. You may want to change your parameters

## Warning: model fit failed for Fold08.Rep2: C=0.00 Error in .local(x, ...) :
##   No Support Vectors found. You may want to change your parameters

## Warning: model fit failed for Fold09.Rep2: C=0.00 Error in .local(x, ...) :
##   No Support Vectors found. You may want to change your parameters

## Warning: model fit failed for Fold10.Rep2: C=0.00 Error in .local(x, ...) :
##   No Support Vectors found. You may want to change your parameters

## Warning: model fit failed for Fold01.Rep3: C=0.00 Error in .local(x, ...) :
##   No Support Vectors found. You may want to change your parameters

## Warning: model fit failed for Fold02.Rep3: C=0.00 Error in .local(x, ...) :
##   No Support Vectors found. You may want to change your parameters

## Warning: model fit failed for Fold03.Rep3: C=0.00 Error in .local(x, ...) :
##   No Support Vectors found. You may want to change your parameters

## Warning: model fit failed for Fold04.Rep3: C=0.00 Error in .local(x, ...) :
##   No Support Vectors found. You may want to change your parameters

## Warning: model fit failed for Fold05.Rep3: C=0.00 Error in .local(x, ...) :
##   No Support Vectors found. You may want to change your parameters

## Warning: model fit failed for Fold06.Rep3: C=0.00 Error in .local(x, ...) :
##   No Support Vectors found. You may want to change your parameters

## Warning: model fit failed for Fold07.Rep3: C=0.00 Error in .local(x, ...) :
##   No Support Vectors found. You may want to change your parameters

## Warning: model fit failed for Fold08.Rep3: C=0.00 Error in .local(x, ...) :
##   No Support Vectors found. You may want to change your parameters

## Warning: model fit failed for Fold09.Rep3: C=0.00 Error in .local(x, ...) :
##   No Support Vectors found. You may want to change your parameters

## Warning: model fit failed for Fold10.Rep3: C=0.00 Error in .local(x, ...) :
##   No Support Vectors found. You may want to change your parameters

## Warning in nominalTrainWorkflow(x = x, y = y, wts = weights, info = trainInfo, :
## There were missing values in resampled performance measures.

## Warning in train.default(x, y, weights = w, ...): missing values found in
## aggregated results
```

```
svm_Linear_Grid
```

```
## Support Vector Machines with Linear Kernel
##
## 700 samples
##   8 predictor
##   2 classes: 'CLICKED', 'NOT_CLICKED'
##
## Pre-processing: centered (8), scaled (8)
## Resampling: Cross-Validated (10 fold, repeated 3 times)
## Summary of sample sizes: 630, 630, 630, 630, 630, 630, ...
## Resampling results across tuning parameters:
##
##   C      Accuracy   Kappa
##   0.00        NaN        NaN
##   0.01   0.9676190  0.9352381
##   0.05   0.9709524  0.9419048
##   0.10   0.9728571  0.9457143
##   0.25   0.9738095  0.9476190
##   0.50   0.9733333  0.9466667
##   0.75   0.9733333  0.9466667
##   1.00   0.9752381  0.9504762
##   1.25   0.9747619  0.9495238
##   1.50   0.9752381  0.9504762
##   1.75   0.9752381  0.9504762
##   2.00   0.9752381  0.9504762
##   5.00   0.9771429  0.9542857
##
## Accuracy was used to select the optimal model using the largest value.
## The final value used for the model was C = 5.
```

```
plot(svm_Linear_Grid)
```
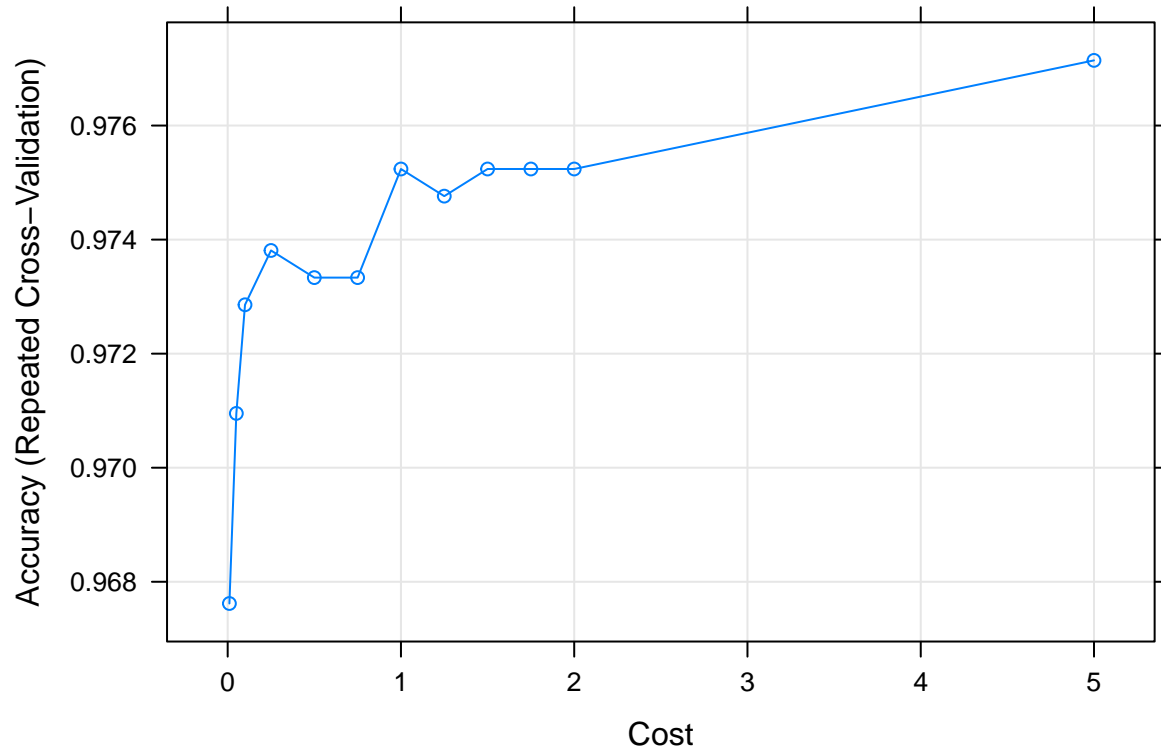
```r
#Making predictions with the model after tuning.
test_pred_grid <- predict(svm_Linear_Grid, newdata = testing)
```

```r
#checking the accuracy
confusionMatrix(table(test_pred_grid, testing$Clicked.on.Ad))
```

```
## Confusion Matrix and Statistics
##
##
## test_pred_grid CLICKED NOT_CLICKED
##     CLICKED          141           4
##     NOT_CLICKED        9         146
##
##                  Accuracy : 0.9567
##                    95% CI : (0.927, 0.9767)
##       No Information Rate : 0.5
##       P-Value [Acc > NIR] : <2e-16
##
##                     Kappa : 0.9133
##
##   Mcnemar's Test P-Value : 0.2673
##
##               Sensitivity : 0.9400
##               Specificity : 0.9733
##            Pos Pred Value : 0.9724
```

```
##         Neg Pred Value : 0.9419
##            Prevalence : 0.5000
##        Detection Rate : 0.4700
##  Detection Prevalence : 0.4833
##     Balanced Accuracy : 0.9567
##
##       'Positive' Class : CLICKED
##
```

Conclusion

- The demographic of people who made the mot clicks were above 40 and had low daily internet usage as well as daily site usage. K means Clustering is a beneficial technique when carrying out this type of prediction.

- Daily time spent on a site has a negative correlation on whether an individual clicks on an ad probably because they are already on the site and are aware of what the ad is about.

- The model created using decission trees performs slightly better with an accuracy of 95.7% than the one created using SVM which has an accuracy of 95.6%.

- Hyperparameter tuning doesn't do much in improving the svm model performance.

- We achieved our metric of success since both our models achieved an accuracy score of above 85%.

Recommendations

- Ads that are more appealing could be created so as to increase the ad clicks from men.

- We recommend the use of the SVM model in making predictions as it achieved the highest accuracy score of 95.6%.

##9. Follow up questions

###a) Did we have the right data? `Yes. The dataset had a good number of variables that helped us study the individuals and determine who was likely to click on an ad.`

###b) Do we need other data to answer our question? `Not necessarily, more research is needed to obtain more insight`

###c) Did we have the right question? `Yes.`