R Assignment

2022-04-08

```
Dataset<- read.csv(file.choose())
```

#Printing structure

```
str(Dataset)
```

```
## 'data.frame':    195 obs. of  39 variables:
##  $ Country  : chr  "Afghanistan" "Albania" "Algeria" "American Samoa" ...
##  $ Continent: chr  "Asia" "Europe" "Africa" "Oceania" ...
##  $ Region   : chr  "Southern Asia" "Southern Europe" "Northern Africa" "Polynesia" ...
##  $ DevName  : chr  "Developing regions" "Developed regions" "Developing regions" "Developing regions"
##  $ X1980    : int  16 1 80 0 0 1 0 368 0 702 ...
##  $ X1981    : int  39 0 67 1 0 3 0 426 0 639 ...
##  $ X1982    : int  39 0 71 0 0 6 0 626 0 484 ...
##  $ X1983    : int  47 0 69 0 0 6 0 241 0 317 ...
##  $ X1984    : int  71 0 63 0 0 4 42 237 0 317 ...
##  $ X1985    : int  340 0 44 0 0 3 52 196 0 319 ...
##  $ X1986    : int  496 1 69 0 2 5 51 213 0 356 ...
##  $ X1987    : int  741 2 132 1 0 5 61 519 0 467 ...
##  $ X1988    : int  828 2 242 0 0 11 34 374 0 410 ...
##  $ X1989    : int  1076 3 434 1 0 6 51 538 0 553 ...
##  $ X1990    : int  1028 3 491 2 3 8 31 678 0 620 ...
##  $ X1991    : int  1378 21 872 0 0 23 59 763 0 640 ...
##  $ X1992    : int  1170 56 795 0 1 26 61 1023 22 734 ...
##  $ X1993    : int  713 96 717 0 0 22 44 1022 21 886 ...
##  $ X1994    : int  858 71 595 0 0 8 18 366 66 702 ...
##  $ X1995    : int  1537 63 1106 0 0 26 23 380 75 668 ...
##  $ X1996    : int  2212 113 2054 0 0 38 21 396 102 699 ...
##  $ X1997    : int  2555 307 1842 0 0 27 27 391 115 623 ...
##  $ X1998    : int  1999 574 2292 0 2 58 19 349 89 479 ...
##  $ X1999    : int  2395 1264 2389 0 0 49 12 318 112 523 ...
##  $ X2000    : int  3326 1816 2867 0 0 70 13 427 124 599 ...
##  $ X2001    : int  4067 1602 3418 0 1 169 25 635 87 799 ...
##  $ X2002    : int  3697 1021 3406 0 0 168 17 865 132 747 ...
##  $ X2003    : int  3479 853 3072 0 2 165 25 1745 153 876 ...
##  $ X2004    : int  2978 1450 3616 0 0 268 14 1591 147 930 ...
##  $ X2005    : int  3436 1223 3626 0 0 295 24 1153 224 909 ...
##  $ X2006    : int  3009 856 4807 1 1 184 32 847 218 875 ...
##  $ X2007    : int  2652 702 3623 0 1 106 15 620 198 1033 ...
##  $ X2008    : int  2111 560 4005 0 0 76 32 540 205 1018 ...
##  $ X2009    : int  1746 716 5393 0 0 62 38 467 267 1018 ...
##  $ X2010    : int  1758 561 4752 0 0 61 27 459 252 933 ...
##  $ X2011    : int  2203 539 4325 0 0 39 37 278 236 851 ...
##  $ X2012    : int  2635 620 3774 0 1 70 51 263 258 982 ...
##  $ X2013    : int  2004 603 4331 0 1 45 25 282 207 1121 ...
##  $ Total    : int  58639 15699 69439 6 15 2113 981 19596 3310 23829 ...
```

#List of Varibles

```
list(Dataset)
```

```
## [[1]]
##                                                        Country
## 1                                                  Afghanistan
## 2                                                      Albania
## 3                                                      Algeria
## 4                                               American Samoa
## 5                                                      Andorra
## 6                                                       Angola
## 7                                          Antigua and Barbuda
## 8                                                    Argentina
## 9                                                      Armenia
## 10                                                   Australia
## 11                                                     Austria
## 12                                                  Azerbaijan
## 13                                                     Bahamas
## 14                                                     Bahrain
## 15                                                  Bangladesh
## 16                                                    Barbados
## 17                                                     Belarus
## 18                                                     Belgium
## 19                                                      Belize
## 20                                                       Benin
## 21                                                      Bhutan
## 22                              Bolivia (Plurinational State of)
## 23                                      Bosnia and Herzegovina
## 24                                                    Botswana
## 25                                                      Brazil
## 26                                            Brunei Darussalam
## 27                                                    Bulgaria
## 28                                                Burkina Faso
## 29                                                     Burundi
## 30                                                  Cabo Verde
## 31                                                    Cambodia
## 32                                                    Cameroon
## 33                                                      Canada
## 34                                    Central African Republic
## 35                                                        Chad
## 36                                                       Chile
## 37                                                       China
## 38       China, Hong Kong Special Administrative Region
## 39          China, Macao Special Administrative Region
## 40                                                    Colombia
## 41                                                     Comoros
## 42                                                       Congo
## 43                                                  Costa Rica
## 44                                                 CÃ´te d'Ivoire
## 45                                                     Croatia
## 46                                                        Cuba
## 47                                                      Cyprus
## 48                                              Czech Republic
## 49                    Democratic People's Republic of Korea
```

2

```
## 50                       Democratic Republic of the Congo
## 51                                               Denmark
## 52                                              Djibouti
## 53                                              Dominica
## 54                                    Dominican Republic
## 55                                               Ecuador
## 56                                                 Egypt
## 57                                           El Salvador
## 58                                     Equatorial Guinea
## 59                                               Eritrea
## 60                                               Estonia
## 61                                              Ethiopia
## 62                                                  Fiji
## 63                                               Finland
## 64                                                France
## 65                                                 Gabon
## 66                                                Gambia
## 67                                               Georgia
## 68                                               Germany
## 69                                                 Ghana
## 70                                                Greece
## 71                                               Grenada
## 72                                             Guatemala
## 73                                                Guinea
## 74                                         Guinea-Bissau
## 75                                                Guyana
## 76                                                 Haiti
## 77                                              Honduras
## 78                                               Hungary
## 79                                               Iceland
## 80                                                 India
## 81                                             Indonesia
## 82                              Iran (Islamic Republic of)
## 83                                                  Iraq
## 84                                               Ireland
## 85                                                Israel
## 86                                                 Italy
## 87                                               Jamaica
## 88                                                 Japan
## 89                                                Jordan
## 90                                            Kazakhstan
## 91                                                 Kenya
## 92                                              Kiribati
## 93                                                Kuwait
## 94                                            Kyrgyzstan
## 95                        Lao People's Democratic Republic
## 96                                                Latvia
## 97                                               Lebanon
## 98                                               Lesotho
## 99                                               Liberia
## 100                                                Libya
## 101                                        Liechtenstein
## 102                                            Lithuania
## 103                                           Luxembourg
```

```
## 104                        Madagascar
## 105                            Malawi
## 106                          Malaysia
## 107                          Maldives
## 108                              Mali
## 109                             Malta
## 110                  Marshall Islands
## 111                        Mauritania
## 112                         Mauritius
## 113                            Mexico
## 114                            Monaco
## 115                          Mongolia
## 116                        Montenegro
## 117                           Morocco
## 118                        Mozambique
## 119                           Myanmar
## 120                           Namibia
## 121                             Nauru
## 122                             Nepal
## 123                       Netherlands
## 124                     New Caledonia
## 125                       New Zealand
## 126                         Nicaragua
## 127                             Niger
## 128                           Nigeria
## 129                            Norway
## 130                              Oman
## 131                          Pakistan
## 132                             Palau
## 133                            Panama
## 134                  Papua New Guinea
## 135                          Paraguay
## 136                              Peru
## 137                       Philippines
## 138                            Poland
## 139                          Portugal
## 140                             Qatar
## 141                 Republic of Korea
## 142               Republic of Moldova
## 143                           Romania
## 144                Russian Federation
## 145                            Rwanda
## 146             Saint Kitts and Nevis
## 147                       Saint Lucia
## 148 Saint Vincent and the Grenadines
## 149                             Samoa
## 150                        San Marino
## 151            Sao Tome and Principe
## 152                      Saudi Arabia
## 153                           Senegal
## 154                            Serbia
## 155                        Seychelles
## 156                      Sierra Leone
## 157                         Singapore
```

```
## 158                                              Slovakia
## 159                                              Slovenia
## 160                                               Somalia
## 161                                          South Africa
## 162                                                 Spain
## 163                                             Sri Lanka
## 164                                    State of Palestine
## 165                                                 Sudan
## 166                                              Suriname
## 167                                             Swaziland
## 168                                                Sweden
## 169                                           Switzerland
## 170                                  Syrian Arab Republic
## 171                                            Tajikistan
## 172                                              Thailand
## 173        The former Yugoslav Republic of Macedonia
## 174                                                  Togo
## 175                                                 Tonga
## 176                                   Trinidad and Tobago
## 177                                               Tunisia
## 178                                                Turkey
## 179                                          Turkmenistan
## 180                                                Tuvalu
## 181                                                Uganda
## 182                                               Ukraine
## 183                                  United Arab Emirates
## 184 United Kingdom of Great Britain and Northern Ireland
## 185                           United Republic of Tanzania
## 186                              United States of America
## 187                                               Uruguay
## 188                                            Uzbekistan
## 189                                               Vanuatu
## 190                    Venezuela (Bolivarian Republic of)
## 191                                              Viet Nam
## 192                                        Western Sahara
## 193                                                 Yemen
## 194                                                Zambia
## 195                                              Zimbabwe
##                              Continent                       Region
## 1                                 Asia              Southern Asia
## 2                               Europe            Southern Europe
## 3                               Africa            Northern Africa
## 4                              Oceania                  Polynesia
## 5                               Europe            Southern Europe
## 6                               Africa              Middle Africa
## 7    Latin America and the Caribbean                  Caribbean
## 8    Latin America and the Caribbean              South America
## 9                                 Asia                Western Asia
## 10                             Oceania Australia and New Zealand
## 11                              Europe             Western Europe
## 12                                Asia                Western Asia
## 13   Latin America and the Caribbean                  Caribbean
## 14                                Asia                Western Asia
## 15                                Asia              Southern Asia
```

```
## 16  Latin America and the Caribbean                   Caribbean
## 17                             Europe         Eastern Europe
## 18                             Europe         Western Europe
## 19  Latin America and the Caribbean         Central America
## 20                             Africa         Western Africa
## 21                               Asia          Southern Asia
## 22  Latin America and the Caribbean          South America
## 23                             Europe        Southern Europe
## 24                             Africa        Southern Africa
## 25  Latin America and the Caribbean          South America
## 26                               Asia     South-Eastern Asia
## 27                             Europe         Eastern Europe
## 28                             Africa         Western Africa
## 29                             Africa         Eastern Africa
## 30                             Africa         Western Africa
## 31                               Asia     South-Eastern Asia
## 32                             Africa          Middle Africa
## 33                   Northern America       Northern America
## 34                             Africa          Middle Africa
## 35                             Africa          Middle Africa
## 36  Latin America and the Caribbean          South America
## 37                               Asia           Eastern Asia
## 38                               Asia           Eastern Asia
## 39                               Asia           Eastern Asia
## 40  Latin America and the Caribbean          South America
## 41                             Africa         Eastern Africa
## 42                             Africa          Middle Africa
## 43  Latin America and the Caribbean         Central America
## 44                             Africa         Western Africa
## 45                             Europe        Southern Europe
## 46  Latin America and the Caribbean                   Caribbean
## 47                               Asia           Western Asia
## 48                             Europe         Eastern Europe
## 49                               Asia           Eastern Asia
## 50                             Africa          Middle Africa
## 51                             Europe        Northern Europe
## 52                             Africa         Eastern Africa
## 53  Latin America and the Caribbean                   Caribbean
## 54  Latin America and the Caribbean                   Caribbean
## 55  Latin America and the Caribbean          South America
## 56                             Africa        Northern Africa
## 57  Latin America and the Caribbean         Central America
## 58                             Africa          Middle Africa
## 59                             Africa         Eastern Africa
## 60                             Europe        Northern Europe
## 61                             Africa         Eastern Africa
## 62                            Oceania              Melanesia
## 63                             Europe        Northern Europe
## 64                             Europe         Western Europe
## 65                             Africa          Middle Africa
## 66                             Africa         Western Africa
## 67                               Asia           Western Asia
## 68                             Europe         Western Europe
## 69                             Africa         Western Africa
```

```
## 70                            Europe          Southern Europe
## 71  Latin America and the Caribbean                   Caribbean
## 72  Latin America and the Caribbean             Central America
## 73                            Africa            Western Africa
## 74                            Africa            Western Africa
## 75  Latin America and the Caribbean               South America
## 76  Latin America and the Caribbean                   Caribbean
## 77  Latin America and the Caribbean             Central America
## 78                            Europe            Eastern Europe
## 79                            Europe           Northern Europe
## 80                              Asia             Southern Asia
## 81                              Asia         South-Eastern Asia
## 82                              Asia             Southern Asia
## 83                              Asia              Western Asia
## 84                            Europe           Northern Europe
## 85                              Asia              Western Asia
## 86                            Europe          Southern Europe
## 87  Latin America and the Caribbean                   Caribbean
## 88                              Asia              Eastern Asia
## 89                              Asia              Western Asia
## 90                              Asia              Central Asia
## 91                            Africa            Eastern Africa
## 92                           Oceania                Micronesia
## 93                              Asia              Western Asia
## 94                              Asia              Central Asia
## 95                              Asia         South-Eastern Asia
## 96                            Europe           Northern Europe
## 97                              Asia              Western Asia
## 98                            Africa           Southern Africa
## 99                            Africa            Western Africa
## 100                           Africa           Northern Africa
## 101                           Europe            Western Europe
## 102                           Europe           Northern Europe
## 103                           Europe            Western Europe
## 104                           Africa            Eastern Africa
## 105                           Africa            Eastern Africa
## 106                             Asia         South-Eastern Asia
## 107                             Asia             Southern Asia
## 108                           Africa            Western Africa
## 109                           Europe          Southern Europe
## 110                          Oceania                Micronesia
## 111                           Africa            Western Africa
## 112                           Africa            Eastern Africa
## 113 Latin America and the Caribbean             Central America
## 114                           Europe            Western Europe
## 115                             Asia              Eastern Asia
## 116                           Europe          Southern Europe
## 117                           Africa           Northern Africa
## 118                           Africa            Eastern Africa
## 119                             Asia         South-Eastern Asia
## 120                           Africa           Southern Africa
## 121                          Oceania                Micronesia
## 122                             Asia             Southern Asia
## 123                           Europe            Western Europe
```

```
## 124                             Oceania                   Melanesia
## 125                             Oceania Australia and New Zealand
## 126 Latin America and the Caribbean           Central America
## 127                              Africa            Western Africa
## 128                              Africa            Western Africa
## 129                              Europe           Northern Europe
## 130                                Asia              Western Asia
## 131                                Asia             Southern Asia
## 132                             Oceania                Micronesia
## 133 Latin America and the Caribbean           Central America
## 134                             Oceania                 Melanesia
## 135 Latin America and the Caribbean             South America
## 136 Latin America and the Caribbean             South America
## 137                                Asia        South-Eastern Asia
## 138                              Europe            Eastern Europe
## 139                              Europe           Southern Europe
## 140                                Asia              Western Asia
## 141                                Asia              Eastern Asia
## 142                              Europe            Eastern Europe
## 143                              Europe            Eastern Europe
## 144                              Europe            Eastern Europe
## 145                              Africa            Eastern Africa
## 146 Latin America and the Caribbean                 Caribbean
## 147 Latin America and the Caribbean                 Caribbean
## 148 Latin America and the Caribbean                 Caribbean
## 149                             Oceania                 Polynesia
## 150                              Europe           Southern Europe
## 151                              Africa             Middle Africa
## 152                                Asia              Western Asia
## 153                              Africa            Western Africa
## 154                              Europe           Southern Europe
## 155                              Africa            Eastern Africa
## 156                              Africa            Western Africa
## 157                                Asia        South-Eastern Asia
## 158                              Europe            Eastern Europe
## 159                              Europe           Southern Europe
## 160                              Africa            Eastern Africa
## 161                              Africa           Southern Africa
## 162                              Europe           Southern Europe
## 163                                Asia             Southern Asia
## 164                                Asia              Western Asia
## 165                              Africa           Northern Africa
## 166 Latin America and the Caribbean             South America
## 167                              Africa           Southern Africa
## 168                              Europe           Northern Europe
## 169                              Europe            Western Europe
## 170                                Asia              Western Asia
## 171                                Asia              Central Asia
## 172                                Asia        South-Eastern Asia
## 173                              Europe           Southern Europe
## 174                              Africa            Western Africa
## 175                             Oceania                 Polynesia
## 176 Latin America and the Caribbean                 Caribbean
## 177                              Africa           Northern Africa
```

```
## 178                               Asia          Western Asia
## 179                               Asia          Central Asia
## 180                            Oceania             Polynesia
## 181                             Africa        Eastern Africa
## 182                             Europe        Eastern Europe
## 183                               Asia          Western Asia
## 184                             Europe       Northern Europe
## 185                             Africa        Eastern Africa
## 186                   Northern America      Northern America
## 187 Latin America and the Caribbean         South America
## 188                               Asia          Central Asia
## 189                            Oceania             Melanesia
## 190 Latin America and the Caribbean         South America
## 191                               Asia    South-Eastern Asia
## 192                             Africa       Northern Africa
## 193                               Asia          Western Asia
## 194                             Africa        Eastern Africa
## 195                             Africa        Eastern Africa
##                       DevName X1980 X1981 X1982 X1983 X1984 X1985 X1986 X1987 X1988
## 1   Developing regions    16    39    39    47    71   340   496   741   828
## 2    Developed regions     1     0     0     0     0     0     1     2     2
## 3   Developing regions    80    67    71    69    63    44    69   132   242
## 4   Developing regions     0     1     0     0     0     0     0     1     0
## 5    Developed regions     0     0     0     0     0     0     2     0     0
## 6   Developing regions     1     3     6     6     4     3     5     5    11
## 7   Developing regions     0     0     0     0    42    52    51    61    34
## 8   Developing regions   368   426   626   241   237   196   213   519   374
## 9   Developing regions     0     0     0     0     0     0     0     0     0
## 10   Developed regions   702   639   484   317   317   319   356   467   410
## 11   Developed regions   234   238   201   117   127   165   196   265   198
## 12  Developing regions     0     0     0     0     0     0     0     0     0
## 13  Developing regions    26    23    38    12    21    28    23    18    22
## 14  Developing regions     0     2     1     1     1     3     0     2    10
## 15  Developing regions    83    84    86    81    98    92   486   503   476
## 16  Developing regions   372   376   299   244   265   285   251   303   265
## 17   Developed regions     0     0     0     0     0     0     0     0     0
## 18   Developed regions   511   540   519   297   183   181   197   283   333
## 19  Developing regions    16    27    13    21    37    26    25    23    53
## 20  Developing regions     2     5     4     3     4     3     6     4    20
## 21  Developing regions     0     0     0     0     1     0     0     0     0
## 22  Developing regions    44    52    42    49    38    44    79   165    63
## 23   Developed regions     0     0     0     0     0     0     0     0     0
## 24  Developing regions    10     1     3     3     7     4     2     3     8
## 25  Developing regions   211   220   192   139   145   130   205   244   394
## 26  Developing regions    79     6     8     2     2     4    12    16   103
## 27   Developed regions    24    20    12    33    11    24    33    52    43
## 28  Developing regions     2     1     3     2     3     2     7    18     6
## 29  Developing regions     0     0     0     0     1     2     1     5     1
## 30  Developing regions     1     1     2     0    11     1     9     3     1
## 31  Developing regions    12    19    26    33    10     7     8    14    15
## 32  Developing regions     9     2    16     7     8    13    11    18    20
## 33   Developed regions     0     0     0     0     0     0     0     0     0
## 34  Developing regions     4     3     1     0     0     0     0     2     3
## 35  Developing regions     0     0     1     0     0     1     2     3     7
```

```
## 36   Developing regions  1233  1069  1078   781   681   533   633  1454   990
## 37   Developing regions  5123  6682  3308  1863  1527  1816  1960  2643  2758
## 38   Developing regions     0     0     0     0     0     0     0     0     0
## 39   Developing regions     0     0     0     0     0     0     0     0     0
## 40   Developing regions   266   326   360   244   235   214   257   376   352
## 41   Developing regions     0     2     2     0     0     2     1     0     2
## 42   Developing regions     2     0     1     0     1     2     4     1     1
## 43   Developing regions    28    35    42    51    75   113    79   116   104
## 44   Developing regions    14     8    10     6    21    23    23    20    17
## 45    Developed regions     0     0     0     0     0     0     0     0     0
## 46   Developing regions   306    41    94   104   101   115   102   139    90
## 47   Developing regions   132   128    84    46    46    43    48    48    56
## 48    Developed regions     0     0     0     0     0     0     0     0     0
## 49   Developing regions     1     1     3     1     4     3     0     0     0
## 50   Developing regions    15    16    17    17    28    11    38    66    46
## 51    Developed regions   272   293   299   106    93    73    93   109   129
## 52   Developing regions     0     1     1     5     1     0     4     2     4
## 53   Developing regions   104    81    94    65    81    79    50    89    75
## 54   Developing regions    40    53   104    88    97    84   307   446   358
## 55   Developing regions   238   207   184   155   179   208   240   344   265
## 56   Developing regions   612   660   755   455   447   348   514  1017  1085
## 57   Developing regions   110   295   882  2587  2666  2769  3106  3558  2720
## 58   Developing regions     0     0     0     0     0     0     1     0     0
## 59   Developing regions     0     0     0     0     0     0     0     0     0
## 60    Developed regions     0     0     0     0     0     0     0     0     0
## 61   Developing regions    98    59    54    98   154   157   302   555   690
## 62   Developing regions   632   705   814   554   389   446   361   523   561
## 63    Developed regions   208   205   170    70    83    69    68    92    89
## 64    Developed regions  1729  2027  2219  1490  1169  1177  1298  1658  2038
## 65   Developing regions     2     3     2     2     1     0     0     5     3
## 66   Developing regions     0     0     1     0     0     2     4    22     3
## 67   Developing regions     0     0     0     0     0     0     0     0     0
## 68    Developed regions  1626  1977  3062  2376  1610  1441  1233  1704  1482
## 69   Developing regions   172   196    98   122   116   172   215   970   408
## 70    Developed regions  1065   953   897   633   580   584   547   765   564
## 71   Developing regions   154   181   231   165   167   168   235   302   165
## 72   Developing regions   114   108   113   366   598   975  1265  1060   702
## 73   Developing regions     0     3     3     6     4     3     5    14    12
## 74   Developing regions     0     0     0     0     1     0     0     0     3
## 75   Developing regions  2334  2943  3575  2650  1932  2299  3942  6174  2977
## 76   Developing regions  1666  3692  3498  2860  1418  1321  1753  2132  1829
## 77   Developing regions    26    33    30    68    65    69    81   135   111
## 78    Developed regions   205   310   397   337   310   522   647   676  1139
## 79    Developed regions    17    33    10     9    13     6    11    11     7
## 80   Developing regions  8880  8670  8147  7338  5704  4211  7150 10189 11522
## 81   Developing regions   186   178   252   115   123   100   127   213   270
## 82   Developing regions  1172  1429  1822  1592  1977  1648  1794  2989  3273
## 83   Developing regions   262   245   260   380   428   231   265   384   619
## 84    Developed regions   781   895   707   298   327   287   481  1078  1415
## 85   Developing regions  1403  1711  1334   541   446   680  1212  1497  1389
## 86    Developed regions  1820  2057  1480   820   858   667   731  1101   885
## 87   Developing regions  3198  2634  2661  2455  2508  2938  4649  5415  3924
## 88    Developed regions   701   756   598   309   246   198   248   422   324
## 89   Developing regions   177   160   155   113   102   179   181   392   489
```

```
## 90   Developing regions      0     0     0     0     0     0     0     0     0
## 91   Developing regions    291   296   221   201   218   245   244   628   984
## 92   Developing regions      0     0     0     1     0     0     0     0     0
## 93   Developing regions      1     0     8     2     1     4     4     9    19
## 94   Developing regions      0     0     0     0     0     0     0     0     0
## 95   Developing regions     11     6    16    16     7    17    21    20    22
## 96    Developed regions      0     0     0     0     0     0     1     0     0
## 97   Developing regions   1409  1119  1159   789  1253  1683  2576  3803  3970
## 98   Developing regions      1     1     1     2     7     5     3     1     6
## 99   Developing regions      1     2     2     1     4     4     3     4     3
## 100  Developing regions      5     7     9    24    10    31    23    81    43
## 101   Developed regions      1     4     2     0     0     3     0     1     1
## 102   Developed regions      1     1     0     0     0     1     0     0     1
## 103   Developed regions     14     4     2     5     1     3     6     2     4
## 104  Developing regions     22    10    13    32    30    18    10    42    36
## 105  Developing regions      5     4     6     3     2     0     4     7     1
## 106  Developing regions    786   816   813   448   384   374   425   817  2072
## 107  Developing regions      0     0     0     1     0     0     0     0     0
## 108  Developing regions      4     4     7     3     3     4     3     5     4
## 109   Developed regions    191   242   153    64    60    68    76    78   111
## 110  Developing regions      0     0     0     0     0     0     0     0     0
## 111  Developing regions      5     0     3     3     1     1     1     4     3
## 112  Developing regions    306   259   353   170   207   164   325   578   531
## 113  Developing regions    409   394   491   490   509   425   667   813   916
## 114   Developed regions      0     0     0     0     0     1     0     1     0
## 115  Developing regions      0     0     0     0     0     0     0     0     0
## 116   Developed regions      0     0     0     0     0     0     0     0     0
## 117  Developing regions    325   471   447   335   248   328   388   505   685
## 118  Developing regions      0     0     7     2     3     1     3     1     5
## 119  Developing regions     80    62    46    31    41    23    18    33    55
## 120  Developing regions      0     5     5     3     2     1     1     4     3
## 121  Developing regions      1     0     0     0     0     0     0     0     1
## 122  Developing regions      1     1     6     1     2     4    13     6    13
## 123   Developed regions   1889  1858  1852   716   560   510   539   647   832
## 124  Developing regions      0     0     0     0     0     0     0     0     0
## 125   Developed regions    602   480   364   140   164   148   176   208   200
## 126  Developing regions     18    21    27    55   126   468   670  1073   969
## 127  Developing regions      0     0     1     1     0     0     0     4     0
## 128  Developing regions     81    60    58    58    78    78   114   149   122
## 129   Developed regions    116    77   106    51    31    54    56    80    73
## 130  Developing regions      0     0     0     8     0     0     0     3     0
## 131  Developing regions    978   972  1201   900   668   514   691  1072  1334
## 132  Developing regions      0     0     0     0     0     0     0     0     0
## 133  Developing regions     13     8    14    10    11    17    16    26    21
## 134  Developing regions      0     2     2     4     2     2     1     1     3
## 135  Developing regions     45    26    32    40    48    36    34    72    53
## 136  Developing regions    317   456   401   241   306   328   628   843  1237
## 137  Developing regions   6051  5921  5249  4562  3801  3150  4166  7360  8639
## 138   Developed regions    863  2930  5881  4546  3588  2819  4808  6931  9211
## 139   Developed regions   4473  3486  2432  1433  1398  1451  2617  7684  6888
## 140  Developing regions      0     0     0     0     0     0     1     0     1
## 141  Developing regions   1011  1456  1572  1081   847   962  1208  2338  2805
## 142   Developed regions      0     0     0     0     0     0     0     0     0
## 143   Developed regions    375   438   583   543   524   604   656  1202  1106
```

```
## 144  Developed regions       0     0     0     0     0     0     0     0     0
## 145 Developing regions       6     6     8     4     3     0     9     3    12
## 146 Developing regions       5     3     0    16    21    17    36    43    39
## 147 Developing regions      69    89   133    69    68    80    95    92    77
## 148 Developing regions     147   190   202   154   158   182   209   216   133
## 149 Developing regions       3     7     4     1     3     0     3     0     1
## 150  Developed regions       1     0     0     0     0     0     1     0     0
## 151 Developing regions       0     0     0     0     0     0     0     0     0
## 152 Developing regions       0     0     1     4     1     2     5     7    29
## 153 Developing regions      13    10     9    11     7    11    16    19    17
## 154  Developed regions       0     0     0     0     0     0     0     0     0
## 155 Developing regions       5    15     3     4     1     8    13    24    19
## 156 Developing regions       6     6     7     3    12    10    13    57    26
## 157 Developing regions     241   301   337   169   128   139   205   372   808
## 158  Developed regions       0     0     0     0     0     0     0     0     0
## 159  Developed regions       0     0     0     0     0     0     0     0     0
## 160 Developing regions       7    10     7    12    14    10    37   190   217
## 161 Developing regions    1026  1118   781   379   271   310   718  1470  1305
## 162  Developed regions     211   299   260   133   137    98   121   176   137
## 163 Developing regions     185   371   290   197  1086   845  1838  4447  2779
## 164 Developing regions       0     0     0     0     0     0     0     0     0
## 165 Developing regions      20    12    11     7    23    32    57    43    54
## 166 Developing regions      15    10    21    12     5    16     7    46    16
## 167 Developing regions       4     1     1     0    10     7     1     2     7
## 168  Developed regions     281   308   222   176   128   158   187   198   171
## 169  Developed regions     806   811   634   370   326   314   294   565   508
## 170 Developing regions     315   419   409   269   264   385   493   927   864
## 171 Developing regions       0     0     0     0     0     0     0     0     0
## 172 Developing regions      56    53   113    65    82    66    78   117   147
## 173  Developed regions       0     0     0     0     0     0     0     0     0
## 174 Developing regions       5     5     2     3     6     5     8    23    11
## 175 Developing regions       2     4     7     1     2     5     7     0     4
## 176 Developing regions     958   947   972   766   606   699   955  1676  2218
## 177 Developing regions      58    51    55    46    51    57    64    86   130
## 178 Developing regions     481   874   706   280   338   202   257   397   346
## 179 Developing regions       0     0     0     0     0     0     0     0     0
## 180 Developing regions       0     1     0     0     1     0     0     0     1
## 181 Developing regions      13    16    17    38    32    29    40    70    60
## 182  Developed regions       0     0     0     0     0     0     0     0     0
## 183 Developing regions       0     2     2     1     2     0     5     4     1
## 184  Developed regions   22045 24796 20620 10015 10170  9564  9470 21337 27359
## 185 Developing regions     635   832   621   474   473   460   403   538   532
## 186  Developed regions    9378 10030  9074  7100  6661  6543  7074  7705  6469
## 187 Developing regions     128   132   146   105    90    92   137   269    99
## 188 Developing regions       0     0     0     0     0     0     0     0     0
## 189 Developing regions       0     0     0     0     0     0     0     0     0
## 190 Developing regions     103   117   174   124   142   165   179   229   279
## 191 Developing regions    1191  1829  2162  3404  7583  5907  2741  1406  1411
## 192 Developing regions       0     0     0     0     0     0     0     0     0
## 193 Developing regions       1     2     1     6     0    18     7    12     7
## 194 Developing regions      11    17    11     7    16     9    15    23    44
## 195 Developing regions      72   114   102    44    32    29    43    68    99
##      X1989 X1990 X1991 X1992 X1993 X1994 X1995 X1996 X1997 X1998 X1999 X2000
## 1     1076  1028  1378  1170   713   858  1537  2212  2555  1999  2395  3326
```

```
## 2         3      3     21     56     96     71     63    113    307    574   1264   1816
## 3       434    491    872    795    717    595   1106   2054   1842   2292   2389   2867
## 4         1      2      0      0      0      0      0      0      0      0      0      0
## 5         0      3      0      1      0      0      0      0      0      2      0      0
## 6         6      8     23     26     22      8     26     38     27     58     49     70
## 7        51     31     59     61     44     18     23     21     27     19     12     13
## 8       538    678    763   1023   1022    366    380    396    391    349    318    427
## 9         0      0      0     22     21     66     75    102    115     89    112    124
## 10      553    620    640    734    886    702    668    699    623    479    523    599
## 11      227    158    189    131    132    133    153    191    152    190    117     97
## 12        0      0      0      0     17     18     23     26     38     62     54     77
## 13       32     18     29     16     20     21     17     30     17     14     13     14
## 14        9      6      9      9     11     14     10     17     28     14     27     34
## 15      387    611   1115   1655   1280   1361   2042   2824   3378   2202   2064   3119
## 16      275    327    373    336    380    179    211    176    153    139    114    122
## 17        0      0      0     12     40    114    118    156    349    540    426    515
## 18      307    303    216    208    240    201    240    279    227    307    209    369
## 19       33     38     41     27     37     41     43     27     33     20     37     28
## 20       14     13     13     25     25     18     15     29     32     19     37     35
## 21        1      0      2      2      1      1      4      2      2      1      3      6
## 22       68     71    214    247    180     75     61     96     43     33     42     33
## 23        0      0      0    258   2095   2090   3007   2599   2214   2789   2737    854
## 24        8      2      2      4      4      0      2      3      2      0      2      3
## 25      650    650    877   1066    866    566    572    586    591    531    626    845
## 26       63     44     65     31     36     14     17      4      6      1      3      6
## 27       85    172    611   1116    965    687    762    825    732    779    832   1172
## 28        4      4     22     21     19      3     12     16     23     14     20     31
## 29       14     19      9     19     14     28    126    367    207     94    202    342
## 30        7     14     16     15     11      9      4      7     16      9      3      4
## 31       27     34     38     93    418    371    286    216    313    241    165    245
## 32       38     34     66     71     78     67    122    178    104    197    220    244
## 33        0      3      3      4      3      1      1      1      0      0      0      0
## 34        4      6      2     11      4      4      4      6      9     17      6     13
## 35       14      8      2     10     13      6      5     38     26     30    122    148
## 36     1023   1286   1749   1175    697    352    273    244    325    376    397    366
## 37     4323   8076  14255  10846   9817  13128  14398  19415  20475  21049  30069  35529
## 38        0      0      0      0      0      0      0      0     24    257    400    470
## 39        0      0      0      0      0      0      0      0      0      0      0      1
## 40      439    614    652    582    464    375    371    381    578    929   1306   2259
## 41        2      1      3      0      2      4      4      5      2      4      1      3
## 42        5      3      6     13      4     14     11     15     25     44    102    119
## 43       92     99    156    216    184     83     89    118    135    103    100    106
## 44       37     42     62     62     67     68    101    102     67     57    110    118
## 45        0      0      0    151    938    692    647    541    622    676    993    715
## 46      122    135    158    220    374    360    421    508    566    531    696    842
## 47       55     27     37     29     42     24     16     31     36     19     15     16
## 48        0      0      1      0    107    155    128    149    182    206    524    470
## 49        0      1      4     16      0      1      0      0      4      1      4      6
## 50       48    116    223    439    404    309    529    796    663    768    937   1232
## 51      129    118    111    158    186     93    111     70     83     63     81     93
## 52        6     10     14     34     23     10     13     19     28     30     85    145
## 53       96     77    127    125    106     57     77     66     68     56     67     72
## 54      409    363    517    557    646    432    276    306    285    210    254    241
## 55      278    552    643    644    547    431    368    310    317    295    291    342
```

```
## 56   1663   2365   1860   1558   1598   2375   2821   2561   2137   1387   1378   1642
## 57   2955   4384   7124   5670   2977   1217    722    736    603    477    424    569
## 58      0      0      1      2      1      0      0      0      3      1      0      4
## 59      0      0      0      0      0     33     58    100     80     77     79    153
## 60      0     14      4     30     51     39     70     89     73     50     54     58
## 61   1096    890   1168   1876   1779   1204    870    999    739    563    678   1074
## 62    736   1172   1619   1782   1317   1016    674    621    448    388    360    458
## 63     78     73     63     76     98     99     76     58     82     55     63     70
## 64   2332   2177   2911   3487   3709   2759   3332   2623   2473   3214   3343   3765
## 65      4     10      5      3      8      4      5      9     12     14     20     16
## 66      6     12     21     51     43     15     23     19     25     17     18     23
## 67      0      0      0      8     22     27     67     49     46     92     46     83
## 68   1706   1273   1273   1181   1488   1255   1553   1686   1397   1363   1717   1703
## 69    429    449   1134   2502   2201   1341   1475   1219   1274   1040    845    959
## 70    773    538    592    492    445    275    220    221    190    141    149    150
## 71    170    172    268    434    492    235    364    366    387    330    294    372
## 72    773   1023   2156   1906   1392    757    640    655    519    358    287    329
## 73     17     10     44     36     32     16     49     61     38    107    100    168
## 74      4      4      4      1      2      2      2      3      4      0      1      1
## 75   3270   2824   3266   2932   3399   4181   3935   2324   1795   1238   1366   1308
## 76   2377   2379   2829   2399   3655   2100   2014   1955   1645   1295   1439   1631
## 77    138    187    688    840    551    291    270    299    225    167    173    201
## 78    979    780    775    795    603    349    306    364    319    337    408    418
## 79      3      2     11     17     15     11      9     14     11     20     17      9
## 80  10343  12041  13734  13673  21496  18620  18489  23859  22268  17241  18974  28572
## 81    260    227    252    243    278    262    205    231    166    165    525   1138
## 82   3781   3655   6250   6814   3959   2785   3956   6205   7982   7057   6208   5884
## 83    911    557   1013   1498   2103   1500   2034   2675   2564   2037   2159   2591
## 84   1378    845    705    533    436    331    231    276    220    170    162    178
## 85   1762   1596   1358   1259   1584   1699   2224   2515   2998   3172   2387   2510
## 86   1068    895    711    623    663    558    508    476    491    399    410    383
## 87   3946   4945   5056   5991   6065   3913   3619   3282   2847   2253   2358   2482
## 88    494    379    506    605    907    956    826    994    924    897   1083   1010
## 89    785    841    807    909   1141   1173   1006   1070   1317    999   1218   1511
## 90      0      0      0      3     24     42     56    152    593    884    537    450
## 91   1140    869    605    529    478    414    434    369    223    203    310    495
## 92      2      0      0      0      1      0      1      1      0      2      0      1
## 93     19     26     31     96    109     99    130    187    108    121     80    114
## 94      0      0      0      0      7      8     10      8     43     63     68     56
## 95     44     34     33     63     44     52     40     24     31     16     31     36
## 96      0     10     17     23     47     80     73     67    123    119    127    130
## 97   7157  13568  12567   6915   4902   2751   2228   1919   1472   1329   1594   1903
## 98      5      1      4      4      7      2      3      9      2      1      4      1
## 99      7      5     11     52     37     40     55     59     61     28     36     56
## 100    77     47     86     89     85     74    116    128    156    113    157    208
## 101     1      0      1      2      3      1      0      7      2      0      2      0
## 102     1      5     11     43     63     84    103     87    114     74     96    116
## 103     8      1      3      1     18      9      1      7      9      3      1      5
## 104    27     28     37     34     55     16     30     35     56     48     34     32
## 105     4     10      9      4     12      6      5      6     11      8     14     12
## 106  2346   1917   1338   1486   1000    727    490    382    319    214    299    360
## 107     0      0      0      3      3      0      0      0      0      1      0      1
## 108     7     13     31     90     51     35     36     67     26     43     30     66
## 109    68     38     29     28     12     10     15     21     12     15     13     10
```

```
## 110      0      0      0      0      0      0      0      0      0      0      0      0
## 111      6      4      5      7      8      6      3     10     11      6     11     15
## 112    399    401    358    336    276    176    147    159    136    159    138    199
## 113   1017   1193   1134   1189   1139    776    758   1234   1689   1379   1679   1662
## 114      1      3      0      0      3      1      1      1      0      0      0      1
## 115      0      1      1      1      0      1      1      8      1      0      1     17
## 116      0      0      0      0      0      0      0      0      0      0      0      0
## 117   1060   1313   1390   1055   1042    660   1069    939   1095   1262   1870   2664
## 118      5      3      6      6      8      3      5      1      2      8      8      3
## 119     77    133    104     62    100    172    199    229    205     68     98    121
## 120      2      2      4      0      5      0      9      2      0      0      4      9
## 121      0      0      0      0      0      0      0      0      0      0      1      1
## 122      4     23     29     32     40     31     66    132    155    104    157    236
## 123    825    637    614    609    637    532    596    994    712    653    873    838
## 124      0      0      0      0      0      0      0      0      0      0      0      0
## 125    237    270    227    341    352    234    210    219    181    146    164    212
## 126    705    710   1517   2062   1069    261    251    248    195    124    144    140
## 127      1      1      7      7      4      2     13      7     14     12     19     20
## 128    195    181    281    498    428    323    430    531    657    757    966   1182
## 129     76     83    103     74     92     60     65     70    104     31     36     56
## 130      1      5      0      5      1     12     11      2      7      4      3      7
## 131   2261   2470   3079   4071   4777   4666   4994   9125  13073   9068   9979  15400
## 132      0      0      0      0      0      0      0      0      0      0      0      0
## 133    108    116    658    611    420    103     63     73     70     37     22     45
## 134      0      1      2      4      0      5      1      2      0      0      1      4
## 135     48     56     51     94     75     46     39     38     30     25     34     29
## 136   1667   1384   1522   1632   1274    993    827    845    676    493    560    603
## 137  11865  12509  12718  13670  20479  19532  15864  13692  11549   8735   9734  10763
## 138  16025  17040  16028  12145   6960   3550   2405   2136   1758   1488   1354   1471
## 139   8570   8452   6286   3328   2347   1599   1405   1237   1167    625    458    469
## 140      0      2      6      5      3      2      4      4      7      3      7      4
## 141   2979   2087   2598   3790   3819   3005   3501   3250   4093   4938   7108   7618
## 142      0      0      0     20     70    225    273    230    294    216    199    288
## 143   1582   2252   2337   3147   3676   3495   4279   3909   3993   3033   3538   4539
## 144      0      0      0    172    906   1327   1819   2640   3708   4388   4053   3843
## 145     11     16     18     53     68     73    159    227    144    192    410    383
## 146     45     32     31     52     29     20     20     18     22     12      9     11
## 147     76     95    126    120    142     76    100    111     84     57     83     94
## 148    133    179    288    290    370    187    243    256    272    193    209    279
## 149      1      2      3      1      5      3      2      2      3      4      0      1
## 150      0      1      0      0      0      0      0      0      0      0      0      0
## 151      0      0      0      0      0      0      0      0      2      0      0      1
## 152     41     22     47     71     55     43     40     84     78     71     74     89
## 153     22     38     71     80     77     49     67    122     82    107    116    121
## 154      0      0      0      0      0      0      0      0      0      0      0      0
## 155     25     78    233    369    191     34     19     27     12     18     17     15
## 156     18     12     41     59     24     36     48     63     83     53     42    308
## 157   1269    843    657    492    474    375    407    409    287    231    437    444
## 158      0      0      1      0    113    103    143    232    236    289    500    460
## 159      0      0      0      5     46     47     22     41     26     15     35     24
## 160    401   1059   3266   5794   3734   1576   2000   1541   1084   1397   1652   1568
## 161   1301    902    823   1059   1549   2366   1455   1308   1729   1350   1478   1763
## 162    168    122    165    130    160     84     78    105     88     87     81     93
## 163   2758   3525   7266  13102   9563   7150   9368   6484   5415   3566   4982   6081
```

```
## 164     0     0     0     0     0     0     0     8    26   146   180   238
## 165    98   151   230   510   432   361   492   714   832   639   589   914
## 166    24    26    13    53    51    32    58    51    35    22    11    16
## 167     3     4     1     4     2     3     5     2     4     3     4     2
## 168   182   130   167   179   203   192   176   161   151   123   170   138
## 169   523   505   602   666   728   475   687   823   666   510   536   471
## 170  1454  1791  1596  1172  1247   965  1053   942   859   892   823   924
## 171     0     0     0     0     5     5     5     2    11     4     4     5
## 172   177   171   219   219   279   237   172   195   152   201   246   258
## 173     0     0     0     0    65   225   193   138    71   106   180   237
## 174    14    17    23    39    38    18    49    75    52    53    52    57
## 175     9     7     4     4     5     7     9     8     8     2     6     0
## 176  3054  2843  3026  4374  4246  2338  2591  2198  1748  1189  1166   899
## 177   242   326   306   315   245   197   271   256   242   237   323   437
## 178   488   767   941  1116  1316   908   732   638   679   777   806  1101
## 179     0     0     0     0     1     1     0    10     6     4     2     7
## 180     0     0     0     1     0     0     0     0     0     0     0     0
## 181    47    75    69   143    79    54    91    62    43    40    51    64
## 182     0     0     0   103   761  1289  1751  2684  2518  2702  2836  3351
## 183    17     7    23    27    11    13     8    33    27    25    24    27
## 184 23795 31668 23380 34123 33720 39231 30145 29322 22965 10367  7045  8840
## 185   662   739   577   398   407   286   313   264   211   138   157   200
## 186  6790  5892  6054  6842  7435  5901  4890  5515  4753  4437  5196  5433
## 187   144   111   229   299   437   125   164   171   117    87    93    75
## 188     0     0     0    12    44    33    34    58    75    97   106   101
## 189     0     1     0     4     0     0     0     0     0     0     0     0
## 190   304   344   487   610   490   334   402   520   686   489   464   443
## 191  3004  3801  5870  5416  6547  5105  3723  2462  1752  1631  1419  1803
## 192     0     0     1     0     0     0     0     0     0     0     0     0
## 193    18     4    18    41    41    39    73   144   121   141   134   122
## 194    68    77    69    73    46    51    41    34    72    34    51    39
## 195   187   129    94    61    72    78    58    39    44    43    49    98
##      X2001 X2002 X2003 X2004 X2005 X2006 X2007 X2008 X2009 X2010 X2011 X2012
## 1    4067  3697  3479  2978  3436  3009  2652  2111  1746  1758  2203  2635
## 2    1602  1021   853  1450  1223   856   702   560   716   561   539   620
## 3    3418  3406  3072  3616  3626  4807  3623  4005  5393  4752  4325  3774
## 4       0     0     0     0     0     1     0     0     0     0     0     0
## 5       1     0     2     0     0     1     1     0     0     0     0     1
## 6     169   168   165   268   295   184   106    76    62    61    39    70
## 7      25    17    25    14    24    32    15    32    38    27    37    51
## 8     635   865  1745  1591  1153   847   620   540   467   459   278   263
## 9      87   132   153   147   224   218   198   205   267   252   236   258
## 10    799   747   876   930   909   875  1033  1018  1018   933   851   982
## 11    134    87   113   118   122   102    98    91   109   124    84   102
## 12     98   186   167   230   359   236   203   125   165   209   138   161
## 13     20    17    14    13    14    18    23    30    27    25    40    60
## 14     13    17    15    12    12    12    22     9    35    28    21    39
## 15   3831  2944  2137  2660  4171  4014  2897  2939  2104  4721  2694  2640
## 16    148   122    74    90   111    97   130   134   125   121    97   132
## 17    430   435   435   543   558   439   568   524   454   438   357   277
## 18    340   307   320   411   400   302   363   335   358   363   332   402
## 19     24    35    16    25    37    24    28    48    38    39    36    34
## 20     66    71    78   112    95   116   183   205   238   290   284   391
## 21      6     8     7     1     5    10     7    36   865  1464  1879  1075
```

```
## 22       72     57     59     85    134    139    107    143    214    180     86     83
## 23      801    433    267    188    211    217    209    182    156    168    140    121
## 24        2      4      4      9      7     11      8     28     15     42     53     64
## 25      847    745    839    917    969   1181   1746   2138   2509   2598   1508   1642
## 26        3      4      6      3      4      5     11     10      5     12      6      3
## 27     1283   1517   1507   2022   1738   1419   1172    994    784    556    365    451
## 28       46     37     34     97     91    147    136    139    162    186    144    269
## 29      334    364    383    559    626    468    614    448    566    529    604    684
## 30        5      2     13      3      5      7      2      5      1      3      3      6
## 31      259    230    277    348    370    529    460    354    203    200    196    233
## 32      206    222    301    436    604    697   1025   1279   1344   1800   1638   2507
## 33        0      0      0      0      0      0      0      0      0      0      1      1
## 34        6     20     10     13     49     18     30     28     19     26     18     45
## 35       90     76     64     92    126     96    131     95     87     98     79     97
## 36      369    401    347    383    384    427    530    350    375    340    174    291
## 37    36434  31961  36439  36619  42584  33518  27642  30037  29622  30391  28502  33024
## 38      379    430    446    536    729    712    674    897    657    623    591    728
## 39       15     28     21     21     21     32     16     12     21     21     13     33
## 40     2965   3283   4318   4566   6424   6535   5357   5452   4652   5218   4366   3741
## 41       14      2     11      6      5      7     11      3     19     22     14     18
## 42      106     84    112    142    136    143     87     72     70     75     81     91
## 43      134    106    105    165    188    279    281    246    217    190    149    183
## 44      143    184    119    256    294    431    619    646    668   1066    636   1024
## 45      376    304    177    151    128    102    102    131     92     91    135    112
## 46      950    872    877    866    999   1064   1350   1300   1433    961    962   1304
## 47       22     13     17     11      7      9      4      7      6     18      6     12
## 48      290    226    181    191    193    146    137    104    159    168    128    173
## 49        8     11     18     15     14     10      7     19     11     45     97     66
## 50     1248   1103   1233   1465   1521   1623   1466   1397   1581   1239   1224   1714
## 51       81     70     89     89     62    101     97    108     81     92     93     94
## 52       96     62     43     67     93     68     50     47     70    123    127    164
## 53       82     62     65     50     59     72     79     60     59     43     36     43
## 54      264    202    234    270    303    295    311    438    391    479    739    604
## 55      353    418    361    417    491    525    419    437    373    353    348    282
## 56     2595   2039   2230   2393   2496   2190   2356   3347   3496   5982   4663   5555
## 57      453    473    446    442    436    430    929   1115    845    787    691    641
## 58        1      2      2      2      3      4      5      1      5      4      4      4
## 59      221    176    262    414    528    700    699    799    904    931   1182   1335
## 60       30     38     56     27     26     18     34     34     26     28     15     26
## 61     1062    818   1399   1535   1506   1801   1512   1613   1289   1865   2163   1864
## 62      643    611    561    495    298    277    304    321    311    398    316    270
## 63       53     59     65     54     67     51     62     89     63     63     72     62
## 64     3806   3463   3568   4391   4429   4002   4290   4532   5051   4646   4080   6280
## 65       26     24     42     33     67     68    101     86     86     64     63     74
## 66       22     10     10     10     29     38     32     25     10     37     24     18
## 67      124    123    127    106    114    125    132    112    128    126    139    147
## 68     1456   1375   1865   2020   2226   2767   2449   3833   3887   2956   2053   1702
## 69      782    696    564    738    851    710    688    629    659    802    528    531
## 70      135    107    117    120    100     74    110    107    119    101    102    146
## 71      354    259    222    296    283    363    360    284    325    208    173    142
## 72      269    242    179    217    190    230    258    263    264    266    288    358
## 73      177    205    196    281    256    342    415    327    347    395    352    407
## 74        3      2      6      4      7     12      7      2      0      2      2      4
## 75     1707   1479   1410   1341   1215   1286   1277   1137   1180    953    804    676
```

```
## 76    2433  2174  1930  1652  1682  1619  1598  2491  2080  4744  6503  5868
## 77     180   143   105   133   166   164   165   187   169   386   538   436
## 78     627   537   489   671   516   520   425   383   312   354   287   300
## 79      26    11    17    23    10     2    15    13    15    30    38    42
## 80   31223 31889 27155 28235 36210 33848 28742 28261 29456 34235 27509 30933
## 81     907   709   515   552   632   613   657   661   504   712   390   395
## 82    6169  8129  5918  6348  5837  7480  6974  6475  6580  7477  7479  7534
## 83    2821  2432  1515  1796  2226  1788  2406  3543  5450  5941  6196  4041
## 84     190   178   192   244   224   283   300   412   395   547   525   725
## 85    2436  2539  2314  2788  2446  2625  2401  2562  2316  2755  1970  2134
## 86     410   374   321   334   344   325   320   370   429   434   374   440
## 87    2838  2524  2054  2237  1945  1722  2141  2334  2456  2321  2059  2182
## 88    1092   806   817   973  1067  1212  1250  1284  1194  1168  1265  1214
## 89    1904  1499  1614  1733  1940  1827  1421  1581  1235  1831  1635  1206
## 90     501   418   542   545   506   408   436   394   431   377   381   462
## 91     651   630   678   685   693   622   449   453   489   507   585   725
## 92       1     0     0     0     1     0     0     1     1     0     0     2
## 93     107    74    72    74    66    35    62    53    68    67    58    73
## 94      95   124    99   245   173   161   135   168   173   157   159   278
## 95      40    49    22    38    42    74    53    32    39    54    22    25
## 96     175   156   110    94    77    69    88    67    85    70   103   202
## 97    2578  2332  3179  3293  3709  3802  3467  3566  3077  3432  3072  1614
## 98       0     2     2     2     4     0     4     1     8     7     1     0
## 99      60    57   139   409   581   356   153    74    94   162   106    58
## 100    228   210   153   196   196   281   198   306   282   384   352   299
## 101      2     0     1     0     1     0     0     1     1     0     2     1
## 102    183   125   194   220   167   113   108   109    63    57    52    77
## 103      5    17     9     9    10     9     9     3     5     8    11     6
## 104     57    59    48    79    88    96   115   118   169   178   148   165
## 105      5     7     3    17    23    15    13     5    10    28    16     9
## 106    460   480   419   401   593   580   600   658   640   802   409   358
## 107      0     1     0     1     0     0     2     1     7     4     3     1
## 108     67    62    72    87    87   114   143   154   164   170   155   191
## 109     24    16    28    28    28    24     7    21    18    17     8     9
## 110      0     0     0     0     0     0     2     0     0     0     0     0
## 111     30    27    23    60    86   124    96   112    83    74    54    77
## 112    393   348   566   702   696   512   507   714   872  1455  1146   799
## 113   1939  1894  1754  2259  2837  2844  3239  2856  3092  3865  3947  4227
## 114      1     1     1     1     1     1     1     0     0     4     1     3
## 115     17    20    28    34    59    64    82    59   118   169   103    68
## 116      0     0     1     0     0     0     7    19    10    14    19    26
## 117   4067  4174  3369  3686  2939  3322  4021  4226  5532  6242  4399  3878
## 118      2     5     3     8     5     9     5     5    12     7     3     4
## 119    113   164   263   191   210   953  1887   975  1153   556   368   193
## 120      9    10     7     9     6    19    13    26    14    16    23    24
## 121      3     2     4     1     1     1     0     0     1     0     0     0
## 122    272   363   313   404   607   540   511   581   561  1392  1129  1185
## 123    806   676   617   749   813   837   615   818   786   759   586   504
## 124      1     0     1     0     0     0     0     1     0     0     0     0
## 125    360   321   345   350   370   318   350   480   520   490   375   417
## 126    108    69    88    67    79    96    76   124   116    94   123   106
## 127     23    30    30    38    59    57    75    75    82    80    90    95
## 128   1426  1403  1064  1518  2236  2594  2375  2109  3156  3906  3103  3443
## 129     78    74    77    73    57    53    73    66    75    46    49    53
```

```
## 130    12     7    11    12    14    18    16    10     7    14    10    13
## 131 16708 15110 13205 13399 14314 13127 10124  8994  7217  6811  7468 11227
## 132     0     0     0     0     0     0     1     0     0     0     0     0
## 133    50    48    54    38    57    73    63    52    73    65    49    34
## 134     2     0     4     1     1     0     0     9     1     3     0     3
## 135    34    60    88    74    75    88    98    95    88    89    83    55
## 136   849   855  1023  1460  1653  1473  1490  1094  1884  1283   886   787
## 137 13836 11707 12758 14004 18139 18400 19837 24887 28573 38617 36765 34315
## 138  1601  1447  1394  1533  1405  1263  1235  1267  1013   795   720   779
## 139   531   364   329   336   338   424   405   665   623   629   528   560
## 140    21     4     4     5    11     2     5     9     6    18     3    14
## 141  9619  7342  7117  5352  5832  6215  5920  7294  5874  5537  4588  5316
## 142   513   612   592   628   655   803  1099  1127  1535  1988  1367  1416
## 143  5652  5765  5541  5755  5048  4468  3834  2837  2076  1922  1776  1588
## 144  4351  3941  3718  3989  3972  3117  2983  2690  2931  2288  1963  2079
## 145   286   215   290   299   378   360   420   358   415   396   492   562
## 146    11     8    12     8    11     3    10    25    11    22    12    21
## 147   116    82    89   110   185   190   255   298   257   249   261   382
## 148   288   240   199   294   343   383   579   434   511   434   451   523
## 149     2     2     3     3     2     0     1     4     2     5     3     2
## 150     0     0     1     0     0     0     0     0     0     1     0     0
## 151     0     0     0     1     1     1     0     0     1     2     0     0
## 152    98    71    70   128   198   252   188   249   246   330   278   286
## 153   129   165   171   210   278   416   433   555   668   765   740   949
## 154     0     0     0     0     0     3    50   259   365   271   299   395
## 155     9     4    13    15    25     8     9    18     4    10    10     6
## 156   386   412   391   347   191   138    92   103    70    63    96    72
## 157   473   588   391   311   392   298   690   734   366   805   219   146
## 158   585   615   501   597   369   241   215   125   128   135   134   136
## 159    22    16    18    17    23    11    29    18    27    12    13    36
## 160  1155   730   957  1364  1198  1061  1166  1015  1214  1528  1535  1582
## 161  1899  1498  1245  1175   988  1111  1200  1123  1188  1238   959  1243
## 162    79    87    89   133   126   124   137   169   195   174   179   262
## 163  5861  5279  4892  4495  4930  4714  4123  4756  4547  4422  3309  3338
## 164   343   266   323   376   453   627   441   481   400   654   555   533
## 165  1105  1489  1862  1823  1310  1039   683   622   422   612   531   444
## 166    22    22    22    17    15    16    20     9    12    13    11    16
## 167     2     1     0     8     7     7     5     6    10     3    13    17
## 168   184   149   161   129   205   139   193   165   167   159   134   140
## 169   383   276   346   337   270   258   308   357   328   285   266   243
## 170  1067   956  1085  1116  1458  1145  1056   919   917  1039  1005   650
## 171    20     9     7    14    85    46    44    15    50    52    47    34
## 172   309   547   439   392   575   500   487   519   512   499   396   296
## 173   291   353   638   443   285   256   211   191   198   188   130   126
## 174    94   105   106   163   157   149   235   351   400   354   261   299
## 175     6     2     5     5     2     0     1     0     5     5     2     3
## 176   904   928   707   730   857   794   975  1002  1134   915   588   586
## 177   788   661   669   764   756  1065   869   950  1195  1299  1442  1503
## 178  1184  1301  1338  1736  2065  1638  1463  1122  1238  1492  1257  1068
## 179    10    11    22    16    40    26    37    13    20    30    20    20
## 180     0     0     0     2     0     0     1     0     0     0     1     0
## 181    94    90   117   160   239   201   170   204   185   216   213   222
## 182  3514  3520  2759  2431  2270  1973  2218  1937  2367  3159  2515  2265
## 183    41    37    32    41    31    42    37    33    37    86    60    54
```

```
## 184 11728  8046  6797  7533  7258  7140  8216  8979  8876  8724  6204  6195
## 185   301   298   320   310   274   291   195   230   136   200   215   224
## 186  5604  4948  5543  6990  8394  9613  9463 10190  8995  8142  7676  7891
## 187    64    91   103   130   217   175   147   160    99    93    81    47
## 188   102   144   155   175   330   262   284   215   288   289   162   235
## 189     1     0     1     1     1     1     0     0     1     0     0     0
## 190   560   524   699  1224  1211  1192  1335  1239  1353   998  1452  1373
## 191  2117  2291  1713  1816  1852  3153  2574  1784  2171  1942  1723  1731
## 192     0     0     0     0     0     1     0     0     0     0     0     0
## 193   181   171   113   124   161   140   122   133   128   211   160   174
## 194    78    50    46    56    91    77    71    64    60   102    69    46
## 195   110   191   669  1450   615   454   663   611   508   494   434   437
##      X2013  Total
## 1     2004  58639
## 2      603  15699
## 3     4331  69439
## 4        0      6
## 5        1     15
## 6       45   2113
## 7       25    981
## 8      282  19596
## 9      207   3310
## 10    1121  23829
## 11      90   4985
## 12      57   2649
## 13      55    808
## 14      32    475
## 15    3789  65568
## 16      97   6923
## 17     247   7975
## 18     379  10762
## 19      53   1083
## 20     397   2852
## 21     487   5876
## 22     107   3205
## 23     119  21855
## 24      76    396
## 25    1714  29659
## 26       6    600
## 27     512  23310
## 28     322   2043
## 29     480   8110
## 30       2    201
## 31     288   6538
## 32    2439  16021
## 33       2     20
## 34     169    550
## 35      86   1653
## 36     273  21359
## 37   34129 659962
## 38     774   9327
## 39      29    284
## 40    3631  72088
## 41      22    194
```

```
## 42    114    1686
## 43    122    4489
## 44   1170    8291
## 45    125    8001
## 46   1402   20365
## 47     16    1126
## 48    174    4192
## 49     17     388
## 50   2050   25582
## 51     81    3901
## 52    201    1646
## 53     48    2470
## 54    590   11193
## 55    418   12233
## 56   4165   72745
## 57    639   54878
## 58     11      61
## 59   1719   10450
## 60     45     935
## 61   1606   35136
## 62    228   20609
## 63     76    2781
## 64   5623  109091
## 65     90     952
## 66     33     603
## 67    125    2068
## 68   1217   63912
## 69    517   26032
## 70    298   12410
## 71    170    9091
## 72    345   19465
## 73    463    4891
## 74      0      83
## 75    656   75785
## 76   4152   84813
## 77    350    7770
## 78    425   16822
## 79     72     570
## 80  33087  691904
## 81    387   13150
## 82  11291  175923
## 83   4918   69789
## 84   1015   16964
## 85   1945   66508
## 86    545   22624
## 87   2479  106431
## 88    982   27707
## 89   1255   35406
## 90    348    8490
## 91    664   17228
## 92      0      15
## 93     48    2025
## 94    123    2353
## 95     15    1089
```

```
## 96     213    2326
## 97    2172  115359
## 98       6     107
## 99      39    2759
## 100    255    4909
## 101      0      40
## 102    145    2414
## 103      7     215
## 104    229    2194
## 105     10     294
## 106    204   24417
## 107      1      30
## 108    190    2188
## 109      4    1546
## 110      0       2
## 111     57    1016
## 112   1203   15690
## 113   3996   58712
## 114      1      29
## 115     99     952
## 116      9     105
## 117   3261   72267
## 118     12     160
## 119    262    9245
## 120     83     320
## 121      1      18
## 122   1308   10222
## 123    395   26884
## 124      2       5
## 125    415   10386
## 126     96   12095
## 127    105     952
## 128   4172   39732
## 129     59    2327
## 130     11     224
## 131  12603  241600
## 132      0       1
## 133     43    3161
## 134      3      64
## 135     66    1944
## 136    682   32652
## 137  29544  511391
## 138    852  139241
## 139    630   74167
## 140      6     157
## 141   4509  142581
## 142   1231   15381
## 143   1512   93585
## 144   2466   63344
## 145    415    6691
## 146     18     653
## 147    392    4802
## 148    538    9707
## 149      0      78
```

```
## 150     0       5
## 151     1      10
## 152   267    3425
## 153   818    7362
## 154   297    1939
## 155     5    1266
## 156    63    3351
## 157   141   14579
## 158   105    5963
## 159    20     523
## 160  2028   42109
## 161  1240   40568
## 162   331    5018
## 163  2394  148358
## 164   462    6512
## 165   343   18506
## 166     4     739
## 167    39     188
## 168   140    5866
## 169   201   15678
## 170  1009   31485
## 171    39     503
## 172   400    9174
## 173   112    4637
## 174   316    3545
## 175     5     142
## 176   427   50016
## 177  1627   17583
## 178   729   31781
## 179    14     310
## 180     0       8
## 181   206    3450
## 182  2487   51410
## 183    46     836
## 184  5827  551500
## 185   182   12496
## 186  8501  241122
## 187    58    4715
## 188   167    3368
## 189     0      11
## 190  1022   21267
## 191  2112   97146
## 192     0       2
## 193   217    2985
## 194    59    1677
## 195   407    8598
```

#Print top 15 rows of dataset

```
head(Dataset, 15)
```

```
##                 Country              Continent
## 1           Afghanistan                   Asia
## 2               Albania                 Europe
## 3               Algeria                 Africa
```

```
## 4          American Samoa                             Oceania
## 5                Andorra                              Europe
## 6                 Angola                              Africa
## 7  Antigua and Barbuda Latin America and the Caribbean
## 8             Argentina Latin America and the Caribbean
## 9               Armenia                                Asia
## 10            Australia                             Oceania
## 11              Austria                              Europe
## 12           Azerbaijan                                Asia
## 13              Bahamas Latin America and the Caribbean
## 14              Bahrain                                Asia
## 15           Bangladesh                                Asia
##                         Region           DevName X1980 X1981 X1982 X1983 X1984
## 1               Southern Asia Developing regions    16    39    39    47    71
## 2             Southern Europe  Developed regions     1     0     0     0     0
## 3             Northern Africa Developing regions    80    67    71    69    63
## 4                  Polynesia Developing regions     0     1     0     0     0
## 5             Southern Europe  Developed regions     0     0     0     0     0
## 6               Middle Africa Developing regions     1     3     6     6     4
## 7                   Caribbean Developing regions     0     0     0     0    42
## 8               South America Developing regions   368   426   626   241   237
## 9                Western Asia Developing regions     0     0     0     0     0
## 10 Australia and New Zealand  Developed regions   702   639   484   317   317
## 11             Western Europe  Developed regions   234   238   201   117   127
## 12              Western Asia Developing regions     0     0     0     0     0
## 13                  Caribbean Developing regions    26    23    38    12    21
## 14               Western Asia Developing regions     0     2     1     1     1
## 15              Southern Asia Developing regions    83    84    86    81    98
##     X1985 X1986 X1987 X1988 X1989 X1990 X1991 X1992 X1993 X1994 X1995 X1996
## 1     340   496   741   828  1076  1028  1378  1170   713   858  1537  2212
## 2       0     1     2     2     3     3    21    56    96    71    63   113
## 3      44    69   132   242   434   491   872   795   717   595  1106  2054
## 4       0     0     1     0     1     2     0     0     0     0     0     0
## 5       0     2     0     0     0     3     0     1     0     0     0     0
## 6       3     5     5    11     6     8    23    26    22     8    26    38
## 7      52    51    61    34    51    31    59    61    44    18    23    21
## 8     196   213   519   374   538   678   763  1023  1022   366   380   396
## 9       0     0     0     0     0     0     0    22    21    66    75   102
## 10    319   356   467   410   553   620   640   734   886   702   668   699
## 11    165   196   265   198   227   158   189   131   132   133   153   191
## 12      0     0     0     0     0     0     0     0    17    18    23    26
## 13     28    23    18    22    32    18    29    16    20    21    17    30
## 14      3     0     2    10     9     6     9     9    11    14    10    17
## 15     92   486   503   476   387   611  1115  1655  1280  1361  2042  2824
##     X1997 X1998 X1999 X2000 X2001 X2002 X2003 X2004 X2005 X2006 X2007 X2008
## 1    2555  1999  2395  3326  4067  3697  3479  2978  3436  3009  2652  2111
## 2     307   574  1264  1816  1602  1021   853  1450  1223   856   702   560
## 3    1842  2292  2389  2867  3418  3406  3072  3616  3626  4807  3623  4005
## 4       0     0     0     0     0     0     0     0     0     1     0     0
## 5       0     2     0     0     1     0     2     0     0     1     1     0
## 6      27    58    49    70   169   168   165   268   295   184   106    76
## 7      27    19    12    13    25    17    25    14    24    32    15    32
## 8     391   349   318   427   635   865  1745  1591  1153   847   620   540
## 9     115    89   112   124    87   132   153   147   224   218   198   205
```

```
## 10    623    479    523    599    799    747    876    930    909    875   1033   1018
## 11    152    190    117     97    134     87    113    118    122    102     98     91
## 12     38     62     54     77     98    186    167    230    359    236    203    125
## 13     17     14     13     14     20     17     14     13     14     18     23     30
## 14     28     14     27     34     13     17     15     12     12     12     22      9
## 15   3378   2202   2064   3119   3831   2944   2137   2660   4171   4014   2897   2939
##      X2009 X2010 X2011 X2012 X2013  Total
## 1    1746  1758  2203  2635  2004  58639
## 2     716   561   539   620   603  15699
## 3    5393  4752  4325  3774  4331  69439
## 4       0     0     0     0     0      6
## 5       0     0     0     1     1     15
## 6      62    61    39    70    45   2113
## 7      38    27    37    51    25    981
## 8     467   459   278   263   282  19596
## 9     267   252   236   258   207   3310
## 10   1018   933   851   982  1121  23829
## 11    109   124    84   102    90   4985
## 12    165   209   138   161    57   2649
## 13     27    25    40    60    55    808
## 14     35    28    21    39    32    475
## 15   2104  4721  2694  2640  3789  65568
```

#One user defined function

```
  max(Dataset$Total)
```

```
## [1] 691904
```

```
  Dataset$X1980 > Dataset$X1981
```

```
##   [1] FALSE  TRUE  TRUE FALSE FALSE FALSE FALSE FALSE FALSE  TRUE FALSE FALSE
##  [13]  TRUE FALSE FALSE FALSE FALSE FALSE FALSE FALSE FALSE FALSE FALSE  TRUE
##  [25] FALSE  TRUE  TRUE  TRUE FALSE FALSE FALSE  TRUE FALSE  TRUE FALSE  TRUE
##  [37] FALSE FALSE FALSE FALSE FALSE  TRUE FALSE  TRUE FALSE  TRUE  TRUE FALSE
##  [49] FALSE FALSE FALSE FALSE  TRUE FALSE  TRUE FALSE FALSE FALSE FALSE FALSE
##  [61]  TRUE FALSE  TRUE FALSE FALSE FALSE FALSE FALSE FALSE  TRUE FALSE  TRUE
##  [73] FALSE FALSE FALSE FALSE FALSE FALSE FALSE  TRUE  TRUE FALSE  TRUE FALSE
##  [85] FALSE FALSE  TRUE FALSE  TRUE FALSE FALSE FALSE  TRUE FALSE  TRUE FALSE
##  [97]  TRUE FALSE FALSE FALSE FALSE FALSE  TRUE  TRUE  TRUE FALSE FALSE FALSE
## [109] FALSE FALSE  TRUE  TRUE  TRUE FALSE FALSE FALSE FALSE FALSE  TRUE FALSE
## [121]  TRUE FALSE  TRUE FALSE  TRUE FALSE FALSE  TRUE  TRUE FALSE  TRUE FALSE
## [133]  TRUE FALSE  TRUE FALSE  TRUE FALSE  TRUE FALSE FALSE FALSE FALSE FALSE
## [145] FALSE  TRUE FALSE FALSE FALSE  TRUE FALSE FALSE  TRUE FALSE FALSE FALSE
## [157] FALSE FALSE FALSE FALSE FALSE FALSE FALSE FALSE  TRUE  TRUE  TRUE FALSE
## [169] FALSE FALSE FALSE  TRUE FALSE FALSE FALSE  TRUE  TRUE FALSE FALSE FALSE
## [181] FALSE FALSE FALSE FALSE FALSE FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [193] FALSE FALSE FALSE
```

#Use data manipulation techniques and filter rows based on any logical criteria that exist in your dataset
R Markdown

```
  library("dplyr")
```

```
##
## Attaching package: 'dplyr'
```

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

```
##
##     filter, lag

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

```r
    library("tidyverse")
```

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

## v ggplot2 3.3.5      v purrr   0.3.4
## v tibble  3.1.6      v stringr 1.4.0
## v tidyr   1.2.0      v forcats 0.5.1
## v readr   2.1.2

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

```r
    IndiaImmgration<- filter(as.data.frame(Dataset%>% select(1,5,38)),Country=="India")

    IndiaImmgration
```

```
##   Country X1980 X2013
## 1   India  8880 33087
```

#Remove Missing Values

```r
    is.na(Dataset)
```

```
##           Country Continent Region DevName X1980 X1981 X1982 X1983 X1984 X1985
##  [1,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
##  [2,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
##  [3,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
##  [4,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
##  [5,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
##  [6,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
##  [7,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
##  [8,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
##  [9,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [10,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [11,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [12,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [13,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [14,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [15,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [16,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [17,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [18,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [19,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [20,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [21,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [22,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [23,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [24,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [25,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [26,]     FALSE     FALSE  FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
```

```
## [27,]      FALSE      FALSE   FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [28,]      FALSE      FALSE   FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
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## [30,]      FALSE      FALSE   FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [31,]      FALSE      FALSE   FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [32,]      FALSE      FALSE   FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [33,]      FALSE      FALSE   FALSE     FALSE FALSE FALSE FALSE FALSE FALSE FALSE
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```

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##         X1986 X1987 X1988 X1989 X1990 X1991 X1992 X1993 X1994 X1995 X1996 X1997
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## [170,] FALSE FALSE FALSE FALSE FALSE
## [171,] FALSE FALSE FALSE FALSE FALSE
## [172,] FALSE FALSE FALSE FALSE FALSE
## [173,] FALSE FALSE FALSE FALSE FALSE
## [174,] FALSE FALSE FALSE FALSE FALSE
## [175,] FALSE FALSE FALSE FALSE FALSE
## [176,] FALSE FALSE FALSE FALSE FALSE
## [177,] FALSE FALSE FALSE FALSE FALSE
## [178,] FALSE FALSE FALSE FALSE FALSE
## [179,] FALSE FALSE FALSE FALSE FALSE
## [180,] FALSE FALSE FALSE FALSE FALSE
## [181,] FALSE FALSE FALSE FALSE FALSE
## [182,] FALSE FALSE FALSE FALSE FALSE
## [183,] FALSE FALSE FALSE FALSE FALSE
## [184,] FALSE FALSE FALSE FALSE FALSE
## [185,] FALSE FALSE FALSE FALSE FALSE
## [186,] FALSE FALSE FALSE FALSE FALSE
## [187,] FALSE FALSE FALSE FALSE FALSE
## [188,] FALSE FALSE FALSE FALSE FALSE
## [189,] FALSE FALSE FALSE FALSE FALSE
## [190,] FALSE FALSE FALSE FALSE FALSE
## [191,] FALSE FALSE FALSE FALSE FALSE
## [192,] FALSE FALSE FALSE FALSE FALSE
## [193,] FALSE FALSE FALSE FALSE FALSE
## [194,] FALSE FALSE FALSE FALSE FALSE
```

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## [195,] FALSE FALSE FALSE FALSE FALSE
```

```
na.omit(Dataset)
```

```
##                                                          Country
## 1                                                     Afghanistan
## 2                                                         Albania
## 3                                                         Algeria
## 4                                                   American Samoa
## 5                                                         Andorra
## 6                                                          Angola
## 7                                              Antigua and Barbuda
## 8                                                       Argentina
## 9                                                         Armenia
## 10                                                      Australia
## 11                                                        Austria
## 12                                                     Azerbaijan
## 13                                                        Bahamas
## 14                                                        Bahrain
## 15                                                     Bangladesh
## 16                                                       Barbados
## 17                                                        Belarus
## 18                                                        Belgium
## 19                                                         Belize
## 20                                                          Benin
## 21                                                         Bhutan
## 22                                Bolivia (Plurinational State of)
## 23                                          Bosnia and Herzegovina
## 24                                                       Botswana
## 25                                                         Brazil
## 26                                                Brunei Darussalam
## 27                                                       Bulgaria
## 28                                                   Burkina Faso
## 29                                                        Burundi
## 30                                                     Cabo Verde
## 31                                                       Cambodia
## 32                                                       Cameroon
## 33                                                         Canada
## 34                                       Central African Republic
## 35                                                           Chad
## 36                                                          Chile
## 37                                                          China
## 38                  China, Hong Kong Special Administrative Region
## 39                      China, Macao Special Administrative Region
## 40                                                       Colombia
## 41                                                        Comoros
## 42                                                          Congo
## 43                                                     Costa Rica
## 44                                                   CÃ´te d'Ivoire
## 45                                                        Croatia
## 46                                                           Cuba
## 47                                                         Cyprus
## 48                                                 Czech Republic
## 49                             Democratic People's Republic of Korea
## 50                               Democratic Republic of the Congo
```

```
## 51                                          Denmark
## 52                                         Djibouti
## 53                                         Dominica
## 54                               Dominican Republic
## 55                                          Ecuador
## 56                                            Egypt
## 57                                      El Salvador
## 58                                Equatorial Guinea
## 59                                          Eritrea
## 60                                          Estonia
## 61                                         Ethiopia
## 62                                             Fiji
## 63                                          Finland
## 64                                           France
## 65                                            Gabon
## 66                                           Gambia
## 67                                          Georgia
## 68                                          Germany
## 69                                            Ghana
## 70                                           Greece
## 71                                          Grenada
## 72                                        Guatemala
## 73                                           Guinea
## 74                                    Guinea-Bissau
## 75                                           Guyana
## 76                                            Haiti
## 77                                         Honduras
## 78                                          Hungary
## 79                                          Iceland
## 80                                            India
## 81                                        Indonesia
## 82                        Iran (Islamic Republic of)
## 83                                             Iraq
## 84                                          Ireland
## 85                                           Israel
## 86                                            Italy
## 87                                          Jamaica
## 88                                            Japan
## 89                                           Jordan
## 90                                       Kazakhstan
## 91                                            Kenya
## 92                                         Kiribati
## 93                                           Kuwait
## 94                                       Kyrgyzstan
## 95                 Lao People's Democratic Republic
## 96                                           Latvia
## 97                                          Lebanon
## 98                                          Lesotho
## 99                                          Liberia
## 100                                           Libya
## 101                                   Liechtenstein
## 102                                       Lithuania
## 103                                      Luxembourg
## 104                                      Madagascar
```

```
## 105                             Malawi
## 106                           Malaysia
## 107                           Maldives
## 108                               Mali
## 109                              Malta
## 110                   Marshall Islands
## 111                         Mauritania
## 112                          Mauritius
## 113                             Mexico
## 114                             Monaco
## 115                           Mongolia
## 116                         Montenegro
## 117                            Morocco
## 118                         Mozambique
## 119                            Myanmar
## 120                            Namibia
## 121                              Nauru
## 122                              Nepal
## 123                        Netherlands
## 124                      New Caledonia
## 125                        New Zealand
## 126                          Nicaragua
## 127                              Niger
## 128                            Nigeria
## 129                             Norway
## 130                               Oman
## 131                           Pakistan
## 132                              Palau
## 133                             Panama
## 134                   Papua New Guinea
## 135                           Paraguay
## 136                               Peru
## 137                        Philippines
## 138                             Poland
## 139                           Portugal
## 140                              Qatar
## 141                  Republic of Korea
## 142                Republic of Moldova
## 143                            Romania
## 144                 Russian Federation
## 145                             Rwanda
## 146              Saint Kitts and Nevis
## 147                        Saint Lucia
## 148    Saint Vincent and the Grenadines
## 149                              Samoa
## 150                         San Marino
## 151             Sao Tome and Principe
## 152                       Saudi Arabia
## 153                            Senegal
## 154                             Serbia
## 155                         Seychelles
## 156                       Sierra Leone
## 157                          Singapore
## 158                           Slovakia
```

```
## 159                                                        Slovenia
## 160                                                         Somalia
## 161                                                    South Africa
## 162                                                           Spain
## 163                                                       Sri Lanka
## 164                                               State of Palestine
## 165                                                           Sudan
## 166                                                        Suriname
## 167                                                       Swaziland
## 168                                                          Sweden
## 169                                                     Switzerland
## 170                                            Syrian Arab Republic
## 171                                                      Tajikistan
## 172                                                        Thailand
## 173                    The former Yugoslav Republic of Macedonia
## 174                                                            Togo
## 175                                                           Tonga
## 176                                             Trinidad and Tobago
## 177                                                         Tunisia
## 178                                                          Turkey
## 179                                                    Turkmenistan
## 180                                                          Tuvalu
## 181                                                          Uganda
## 182                                                         Ukraine
## 183                                            United Arab Emirates
## 184 United Kingdom of Great Britain and Northern Ireland
## 185                                    United Republic of Tanzania
## 186                                        United States of America
## 187                                                         Uruguay
## 188                                                      Uzbekistan
## 189                                                         Vanuatu
## 190                            Venezuela (Bolivarian Republic of)
## 191                                                        Viet Nam
## 192                                                  Western Sahara
## 193                                                           Yemen
## 194                                                          Zambia
## 195                                                        Zimbabwe
##                                Continent                      Region
## 1                                   Asia              Southern Asia
## 2                                 Europe            Southern Europe
## 3                                 Africa            Northern Africa
## 4                                Oceania                 Polynesia
## 5                                 Europe            Southern Europe
## 6                                 Africa              Middle Africa
## 7   Latin America and the Caribbean                   Caribbean
## 8   Latin America and the Caribbean               South America
## 9                                   Asia                Western Asia
## 10                               Oceania Australia and New Zealand
## 11                                Europe              Western Europe
## 12                                  Asia                Western Asia
## 13  Latin America and the Caribbean                   Caribbean
## 14                                  Asia                Western Asia
## 15                                  Asia              Southern Asia
## 16  Latin America and the Caribbean                   Caribbean
```

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```
## 17                                Europe            Eastern Europe
## 18                                Europe            Western Europe
## 19  Latin America and the Caribbean            Central America
## 20                                Africa            Western Africa
## 21                                  Asia             Southern Asia
## 22  Latin America and the Caribbean              South America
## 23                                Europe           Southern Europe
## 24                                Africa           Southern Africa
## 25  Latin America and the Caribbean              South America
## 26                                  Asia        South-Eastern Asia
## 27                                Europe            Eastern Europe
## 28                                Africa            Western Africa
## 29                                Africa            Eastern Africa
## 30                                Africa            Western Africa
## 31                                  Asia        South-Eastern Asia
## 32                                Africa             Middle Africa
## 33               Northern America          Northern America
## 34                                Africa             Middle Africa
## 35                                Africa             Middle Africa
## 36  Latin America and the Caribbean              South America
## 37                                  Asia              Eastern Asia
## 38                                  Asia              Eastern Asia
## 39                                  Asia              Eastern Asia
## 40  Latin America and the Caribbean              South America
## 41                                Africa            Eastern Africa
## 42                                Africa             Middle Africa
## 43  Latin America and the Caribbean            Central America
## 44                                Africa            Western Africa
## 45                                Europe           Southern Europe
## 46  Latin America and the Caribbean                 Caribbean
## 47                                  Asia              Western Asia
## 48                                Europe            Eastern Europe
## 49                                  Asia              Eastern Asia
## 50                                Africa             Middle Africa
## 51                                Europe           Northern Europe
## 52                                Africa            Eastern Africa
## 53  Latin America and the Caribbean                 Caribbean
## 54  Latin America and the Caribbean                 Caribbean
## 55  Latin America and the Caribbean              South America
## 56                                Africa           Northern Africa
## 57  Latin America and the Caribbean            Central America
## 58                                Africa             Middle Africa
## 59                                Africa            Eastern Africa
## 60                                Europe           Northern Europe
## 61                                Africa            Eastern Africa
## 62                               Oceania                 Melanesia
## 63                                Europe           Northern Europe
## 64                                Europe            Western Europe
## 65                                Africa             Middle Africa
## 66                                Africa            Western Africa
## 67                                  Asia              Western Asia
## 68                                Europe            Western Europe
## 69                                Africa            Western Africa
## 70                                Europe           Southern Europe
```

```
## 71  Latin America and the Caribbean                 Caribbean
## 72  Latin America and the Caribbean          Central America
## 73                            Africa           Western Africa
## 74                            Africa           Western Africa
## 75  Latin America and the Caribbean            South America
## 76  Latin America and the Caribbean                 Caribbean
## 77  Latin America and the Caribbean          Central America
## 78                            Europe           Eastern Europe
## 79                            Europe          Northern Europe
## 80                              Asia           Southern Asia
## 81                              Asia      South-Eastern Asia
## 82                              Asia           Southern Asia
## 83                              Asia            Western Asia
## 84                            Europe          Northern Europe
## 85                              Asia            Western Asia
## 86                            Europe          Southern Europe
## 87  Latin America and the Caribbean                 Caribbean
## 88                              Asia            Eastern Asia
## 89                              Asia            Western Asia
## 90                              Asia            Central Asia
## 91                            Africa          Eastern Africa
## 92                           Oceania              Micronesia
## 93                              Asia            Western Asia
## 94                              Asia            Central Asia
## 95                              Asia      South-Eastern Asia
## 96                            Europe          Northern Europe
## 97                              Asia            Western Asia
## 98                            Africa         Southern Africa
## 99                            Africa          Western Africa
## 100                           Africa         Northern Africa
## 101                           Europe           Western Europe
## 102                           Europe          Northern Europe
## 103                           Europe           Western Europe
## 104                           Africa          Eastern Africa
## 105                           Africa          Eastern Africa
## 106                             Asia      South-Eastern Asia
## 107                             Asia           Southern Asia
## 108                           Africa          Western Africa
## 109                           Europe          Southern Europe
## 110                          Oceania              Micronesia
## 111                           Africa          Western Africa
## 112                           Africa          Eastern Africa
## 113 Latin America and the Caribbean          Central America
## 114                           Europe           Western Europe
## 115                             Asia            Eastern Asia
## 116                           Europe          Southern Europe
## 117                           Africa         Northern Africa
## 118                           Africa          Eastern Africa
## 119                             Asia      South-Eastern Asia
## 120                           Africa         Southern Africa
## 121                          Oceania              Micronesia
## 122                             Asia           Southern Asia
## 123                           Europe           Western Europe
## 124                          Oceania               Melanesia
```

```
## 125                                Oceania Australia and New Zealand
## 126 Latin America and the Caribbean         Central America
## 127                                 Africa          Western Africa
## 128                                 Africa          Western Africa
## 129                                 Europe         Northern Europe
## 130                                   Asia            Western Asia
## 131                                   Asia           Southern Asia
## 132                                Oceania             Micronesia
## 133 Latin America and the Caribbean         Central America
## 134                                Oceania              Melanesia
## 135 Latin America and the Caribbean           South America
## 136 Latin America and the Caribbean           South America
## 137                                   Asia      South-Eastern Asia
## 138                                 Europe          Eastern Europe
## 139                                 Europe         Southern Europe
## 140                                   Asia            Western Asia
## 141                                   Asia            Eastern Asia
## 142                                 Europe          Eastern Europe
## 143                                 Europe          Eastern Europe
## 144                                 Europe          Eastern Europe
## 145                                 Africa          Eastern Africa
## 146 Latin America and the Caribbean              Caribbean
## 147 Latin America and the Caribbean              Caribbean
## 148 Latin America and the Caribbean              Caribbean
## 149                                Oceania              Polynesia
## 150                                 Europe         Southern Europe
## 151                                 Africa           Middle Africa
## 152                                   Asia            Western Asia
## 153                                 Africa          Western Africa
## 154                                 Europe         Southern Europe
## 155                                 Africa          Eastern Africa
## 156                                 Africa          Western Africa
## 157                                   Asia      South-Eastern Asia
## 158                                 Europe          Eastern Europe
## 159                                 Europe         Southern Europe
## 160                                 Africa          Eastern Africa
## 161                                 Africa         Southern Africa
## 162                                 Europe         Southern Europe
## 163                                   Asia           Southern Asia
## 164                                   Asia            Western Asia
## 165                                 Africa         Northern Africa
## 166 Latin America and the Caribbean           South America
## 167                                 Africa         Southern Africa
## 168                                 Europe         Northern Europe
## 169                                 Europe          Western Europe
## 170                                   Asia            Western Asia
## 171                                   Asia           Central Asia
## 172                                   Asia      South-Eastern Asia
## 173                                 Europe         Southern Europe
## 174                                 Africa          Western Africa
## 175                                Oceania              Polynesia
## 176 Latin America and the Caribbean              Caribbean
## 177                                 Africa         Northern Africa
## 178                                   Asia            Western Asia
```

```
## 179                                  Asia              Central Asia
## 180                               Oceania                 Polynesia
## 181                                Africa            Eastern Africa
## 182                                Europe            Eastern Europe
## 183                                  Asia              Western Asia
## 184                                Europe           Northern Europe
## 185                                Africa            Eastern Africa
## 186             Northern America          Northern America
## 187 Latin America and the Caribbean             South America
## 188                                  Asia              Central Asia
## 189                               Oceania                 Melanesia
## 190 Latin America and the Caribbean             South America
## 191                                  Asia         South-Eastern Asia
## 192                                Africa           Northern Africa
## 193                                  Asia              Western Asia
## 194                                Africa            Eastern Africa
## 195                                Africa            Eastern Africa
##                 DevName X1980 X1981 X1982 X1983 X1984 X1985 X1986 X1987 X1988
## 1   Developing regions    16    39    39    47    71   340   496   741   828
## 2    Developed regions     1     0     0     0     0     0     1     2     2
## 3   Developing regions    80    67    71    69    63    44    69   132   242
## 4   Developing regions     0     1     0     0     0     0     0     1     0
## 5    Developed regions     0     0     0     0     0     0     2     0     0
## 6   Developing regions     1     3     6     6     4     3     5     5    11
## 7   Developing regions     0     0     0     0    42    52    51    61    34
## 8   Developing regions   368   426   626   241   237   196   213   519   374
## 9   Developing regions     0     0     0     0     0     0     0     0     0
## 10   Developed regions   702   639   484   317   317   319   356   467   410
## 11   Developed regions   234   238   201   117   127   165   196   265   198
## 12  Developing regions     0     0     0     0     0     0     0     0     0
## 13  Developing regions    26    23    38    12    21    28    23    18    22
## 14  Developing regions     0     2     1     1     1     3     0     2    10
## 15  Developing regions    83    84    86    81    98    92   486   503   476
## 16  Developing regions   372   376   299   244   265   285   251   303   265
## 17   Developed regions     0     0     0     0     0     0     0     0     0
## 18   Developed regions   511   540   519   297   183   181   197   283   333
## 19  Developing regions    16    27    13    21    37    26    25    23    53
## 20  Developing regions     2     5     4     3     4     3     6     4    20
## 21  Developing regions     0     0     0     0     1     0     0     0     0
## 22  Developing regions    44    52    42    49    38    44    79   165    63
## 23   Developed regions     0     0     0     0     0     0     0     0     0
## 24  Developing regions    10     1     3     3     7     4     2     3     8
## 25  Developing regions   211   220   192   139   145   130   205   244   394
## 26  Developing regions    79     6     8     2     2     4    12    16   103
## 27   Developed regions    24    20    12    33    11    24    33    52    43
## 28  Developing regions     2     1     3     2     3     2     7    18     6
## 29  Developing regions     0     0     0     0     1     2     1     5     1
## 30  Developing regions     1     1     2     0    11     1     9     3     1
## 31  Developing regions    12    19    26    33    10     7     8    14    15
## 32  Developing regions     9     2    16     7     8    13    11    18    20
## 33   Developed regions     0     0     0     0     0     0     0     0     0
## 34  Developing regions     4     3     1     0     0     0     0     2     3
## 35  Developing regions     0     0     1     0     0     1     2     3     7
## 36  Developing regions  1233  1069  1078   781   681   533   633  1454   990
```

```
## 37    Developing regions   5123   6682   3308   1863   1527   1816   1960    2643    2758
## 38    Developing regions      0      0      0      0      0      0      0       0       0
## 39    Developing regions      0      0      0      0      0      0      0       0       0
## 40    Developing regions    266    326    360    244    235    214    257     376     352
## 41    Developing regions      0      2      2      0      0      2      1       0       2
## 42    Developing regions      2      0      1      0      1      2      4       1       1
## 43    Developing regions     28     35     42     51     75    113     79     116     104
## 44    Developing regions     14      8     10      6     21     23     23      20      17
## 45     Developed regions      0      0      0      0      0      0      0       0       0
## 46    Developing regions    306     41     94    104    101    115    102     139      90
## 47    Developing regions    132    128     84     46     46     43     48      48      56
## 48     Developed regions      0      0      0      0      0      0      0       0       0
## 49    Developing regions      1      1      3      1      4      3      0       0       0
## 50    Developing regions     15     16     17     17     28     11     38      66      46
## 51     Developed regions    272    293    299    106     93     73     93     109     129
## 52    Developing regions      0      1      1      5      1      0      4       2       4
## 53    Developing regions    104     81     94     65     81     79     50      89      75
## 54    Developing regions     40     53    104     88     97     84    307     446     358
## 55    Developing regions    238    207    184    155    179    208    240     344     265
## 56    Developing regions    612    660    755    455    447    348    514    1017    1085
## 57    Developing regions    110    295    882   2587   2666   2769   3106    3558    2720
## 58    Developing regions      0      0      0      0      0      0      1       0       0
## 59    Developing regions      0      0      0      0      0      0      0       0       0
## 60     Developed regions      0      0      0      0      0      0      0       0       0
## 61    Developing regions     98     59     54     98    154    157    302     555     690
## 62    Developing regions    632    705    814    554    389    446    361     523     561
## 63     Developed regions    208    205    170     70     83     69     68      92      89
## 64     Developed regions   1729   2027   2219   1490   1169   1177   1298    1658    2038
## 65    Developing regions      2      3      2      2      1      0      0       5       3
## 66    Developing regions      0      0      1      0      0      2      4      22       3
## 67    Developing regions      0      0      0      0      0      0      0       0       0
## 68     Developed regions   1626   1977   3062   2376   1610   1441   1233    1704    1482
## 69    Developing regions    172    196     98    122    116    172    215     970     408
## 70     Developed regions   1065    953    897    633    580    584    547     765     564
## 71    Developing regions    154    181    231    165    167    168    235     302     165
## 72    Developing regions    114    108    113    366    598    975   1265    1060     702
## 73    Developing regions      0      3      3      6      4      3      5      14      12
## 74    Developing regions      0      0      0      0      1      0      0       0       3
## 75    Developing regions   2334   2943   3575   2650   1932   2299   3942    6174    2977
## 76    Developing regions   1666   3692   3498   2860   1418   1321   1753    2132    1829
## 77    Developing regions     26     33     30     68     65     69     81     135     111
## 78     Developed regions    205    310    397    337    310    522    647     676    1139
## 79     Developed regions     17     33     10      9     13      6     11      11       7
## 80    Developing regions   8880   8670   8147   7338   5704   4211   7150   10189   11522
## 81    Developing regions    186    178    252    115    123    100    127     213     270
## 82    Developing regions   1172   1429   1822   1592   1977   1648   1794    2989    3273
## 83    Developing regions    262    245    260    380    428    231    265     384     619
## 84     Developed regions    781    895    707    298    327    287    481    1078    1415
## 85    Developing regions   1403   1711   1334    541    446    680   1212    1497    1389
## 86     Developed regions   1820   2057   1480    820    858    667    731    1101     885
## 87    Developing regions   3198   2634   2661   2455   2508   2938   4649    5415    3924
## 88     Developed regions    701    756    598    309    246    198    248     422     324
## 89    Developing regions    177    160    155    113    102    179    181     392     489
## 90    Developing regions      0      0      0      0      0      0      0       0       0
```

```
## 91   Developing regions   291   296   221   201   218   245   244   628   984
## 92   Developing regions     0     0     0     1     0     0     0     0     0
## 93   Developing regions     1     0     8     2     1     4     4     9    19
## 94   Developing regions     0     0     0     0     0     0     0     0     0
## 95   Developing regions    11     6    16    16     7    17    21    20    22
## 96    Developed regions     0     0     0     0     0     0     1     0     0
## 97   Developing regions  1409  1119  1159   789  1253  1683  2576  3803  3970
## 98   Developing regions     1     1     1     2     7     5     3     1     6
## 99   Developing regions     1     2     2     1     4     4     3     4     3
## 100  Developing regions     5     7     9    24    10    31    23    81    43
## 101   Developed regions     1     4     2     0     0     3     0     1     1
## 102   Developed regions     1     1     0     0     0     1     0     0     1
## 103   Developed regions    14     4     2     5     1     3     6     2     4
## 104  Developing regions    22    10    13    32    30    18    10    42    36
## 105  Developing regions     5     4     6     3     2     0     4     7     1
## 106  Developing regions   786   816   813   448   384   374   425   817  2072
## 107  Developing regions     0     0     0     1     0     0     0     0     0
## 108  Developing regions     4     4     7     3     3     4     3     5     4
## 109   Developed regions   191   242   153    64    60    68    76    78   111
## 110  Developing regions     0     0     0     0     0     0     0     0     0
## 111  Developing regions     5     0     3     3     1     1     1     4     3
## 112  Developing regions   306   259   353   170   207   164   325   578   531
## 113  Developing regions   409   394   491   490   509   425   667   813   916
## 114   Developed regions     0     0     0     0     0     1     0     1     0
## 115  Developing regions     0     0     0     0     0     0     0     0     0
## 116   Developed regions     0     0     0     0     0     0     0     0     0
## 117  Developing regions   325   471   447   335   248   328   388   505   685
## 118  Developing regions     0     0     7     2     3     1     3     1     5
## 119  Developing regions    80    62    46    31    41    23    18    33    55
## 120  Developing regions     0     5     5     3     2     1     1     4     3
## 121  Developing regions     1     0     0     0     0     0     0     0     1
## 122  Developing regions     1     1     6     1     2     4    13     6    13
## 123   Developed regions  1889  1858  1852   716   560   510   539   647   832
## 124  Developing regions     0     0     0     0     0     0     0     0     0
## 125   Developed regions   602   480   364   140   164   148   176   208   200
## 126  Developing regions    18    21    27    55   126   468   670  1073   969
## 127  Developing regions     0     0     1     1     0     0     0     4     0
## 128  Developing regions    81    60    58    58    78    78   114   149   122
## 129   Developed regions   116    77   106    51    31    54    56    80    73
## 130  Developing regions     0     0     0     8     0     0     0     3     0
## 131  Developing regions   978   972  1201   900   668   514   691  1072  1334
## 132  Developing regions     0     0     0     0     0     0     0     0     0
## 133  Developing regions    13     8    14    10    11    17    16    26    21
## 134  Developing regions     0     2     2     4     2     2     1     1     3
## 135  Developing regions    45    26    32    40    48    36    34    72    53
## 136  Developing regions   317   456   401   241   306   328   628   843  1237
## 137  Developing regions  6051  5921  5249  4562  3801  3150  4166  7360  8639
## 138   Developed regions   863  2930  5881  4546  3588  2819  4808  6931  9211
## 139   Developed regions  4473  3486  2432  1433  1398  1451  2617  7684  6888
## 140  Developing regions     0     0     0     0     0     0     1     0     1
## 141  Developing regions  1011  1456  1572  1081   847   962  1208  2338  2805
## 142   Developed regions     0     0     0     0     0     0     0     0     0
## 143   Developed regions   375   438   583   543   524   604   656  1202  1106
## 144   Developed regions     0     0     0     0     0     0     0     0     0
```

```
## 145 Developing regions       6     6     8     4     3     0     9     3    12
## 146 Developing regions       5     3     0    16    21    17    36    43    39
## 147 Developing regions      69    89   133    69    68    80    95    92    77
## 148 Developing regions     147   190   202   154   158   182   209   216   133
## 149 Developing regions       3     7     4     1     3     0     3     0     1
## 150  Developed regions       1     0     0     0     0     0     1     0     0
## 151 Developing regions       0     0     0     0     0     0     0     0     0
## 152 Developing regions       0     0     1     4     1     2     5     7    29
## 153 Developing regions      13    10     9    11     7    11    16    19    17
## 154  Developed regions       0     0     0     0     0     0     0     0     0
## 155 Developing regions       5    15     3     4     1     8    13    24    19
## 156 Developing regions       6     6     7     3    12    10    13    57    26
## 157 Developing regions     241   301   337   169   128   139   205   372   808
## 158  Developed regions       0     0     0     0     0     0     0     0     0
## 159  Developed regions       0     0     0     0     0     0     0     0     0
## 160 Developing regions       7    10     7    12    14    10    37   190   217
## 161 Developing regions    1026  1118   781   379   271   310   718  1470  1305
## 162  Developed regions     211   299   260   133   137    98   121   176   137
## 163 Developing regions     185   371   290   197  1086   845  1838  4447  2779
## 164 Developing regions       0     0     0     0     0     0     0     0     0
## 165 Developing regions      20    12    11     7    23    32    57    43    54
## 166 Developing regions      15    10    21    12     5    16     7    46    16
## 167 Developing regions       4     1     1     0    10     7     1     2     7
## 168  Developed regions     281   308   222   176   128   158   187   198   171
## 169  Developed regions     806   811   634   370   326   314   294   565   508
## 170 Developing regions     315   419   409   269   264   385   493   927   864
## 171 Developing regions       0     0     0     0     0     0     0     0     0
## 172 Developing regions      56    53   113    65    82    66    78   117   147
## 173  Developed regions       0     0     0     0     0     0     0     0     0
## 174 Developing regions       5     5     2     3     6     5     8    23    11
## 175 Developing regions       2     4     7     1     2     5     7     0     4
## 176 Developing regions     958   947   972   766   606   699   955  1676  2218
## 177 Developing regions      58    51    55    46    51    57    64    86   130
## 178 Developing regions     481   874   706   280   338   202   257   397   346
## 179 Developing regions       0     0     0     0     0     0     0     0     0
## 180 Developing regions       0     1     0     0     1     0     0     0     1
## 181 Developing regions      13    16    17    38    32    29    40    70    60
## 182  Developed regions       0     0     0     0     0     0     0     0     0
## 183 Developing regions       0     2     2     1     2     0     5     4     1
## 184  Developed regions   22045 24796 20620 10015 10170  9564  9470 21337 27359
## 185 Developing regions     635   832   621   474   473   460   403   538   532
## 186  Developed regions    9378 10030  9074  7100  6661  6543  7074  7705  6469
## 187 Developing regions     128   132   146   105    90    92   137   269    99
## 188 Developing regions       0     0     0     0     0     0     0     0     0
## 189 Developing regions       0     0     0     0     0     0     0     0     0
## 190 Developing regions     103   117   174   124   142   165   179   229   279
## 191 Developing regions    1191  1829  2162  3404  7583  5907  2741  1406  1411
## 192 Developing regions       0     0     0     0     0     0     0     0     0
## 193 Developing regions       1     2     1     6     0    18     7    12     7
## 194 Developing regions      11    17    11     7    16     9    15    23    44
## 195 Developing regions      72   114   102    44    32    29    43    68    99
##       X1989 X1990 X1991 X1992 X1993 X1994 X1995 X1996 X1997 X1998 X1999 X2000
## 1      1076  1028  1378  1170   713   858  1537  2212  2555  1999  2395  3326
## 2         3     3    21    56    96    71    63   113   307   574  1264  1816
```

```
## 3      434    491    872    795    717    595   1106   2054   1842   2292   2389   2867
## 4        1      2      0      0      0      0      0      0      0      0      0      0
## 5        0      3      0      1      0      0      0      0      0      2      0      0
## 6        6      8     23     26     22      8     26     38     27     58     49     70
## 7       51     31     59     61     44     18     23     21     27     19     12     13
## 8      538    678    763   1023   1022    366    380    396    391    349    318    427
## 9        0      0      0     22     21     66     75    102    115     89    112    124
## 10     553    620    640    734    886    702    668    699    623    479    523    599
## 11     227    158    189    131    132    133    153    191    152    190    117     97
## 12       0      0      0      0     17     18     23     26     38     62     54     77
## 13      32     18     29     16     20     21     17     30     17     14     13     14
## 14       9      6      9      9     11     14     10     17     28     14     27     34
## 15     387    611   1115   1655   1280   1361   2042   2824   3378   2202   2064   3119
## 16     275    327    373    336    380    179    211    176    153    139    114    122
## 17       0      0      0     12     40    114    118    156    349    540    426    515
## 18     307    303    216    208    240    201    240    279    227    307    209    369
## 19      33     38     41     27     37     41     43     27     33     20     37     28
## 20      14     13     13     25     25     18     15     29     32     19     37     35
## 21       1      0      2      2      1      1      4      2      2      1      3      6
## 22      68     71    214    247    180     75     61     96     43     33     42     33
## 23       0      0      0    258   2095   2090   3007   2599   2214   2789   2737    854
## 24       8      2      2      4      4      0      2      3      2      0      2      3
## 25     650    650    877   1066    866    566    572    586    591    531    626    845
## 26      63     44     65     31     36     14     17      4      6      1      3      6
## 27      85    172    611   1116    965    687    762    825    732    779    832   1172
## 28       4      4     22     21     19      3     12     16     23     14     20     31
## 29      14     19      9     19     14     28    126    367    207     94    202    342
## 30       7     14     16     15     11      9      4      7     16      9      3      4
## 31      27     34     38     93    418    371    286    216    313    241    165    245
## 32      38     34     66     71     78     67    122    178    104    197    220    244
## 33       0      3      3      4      3      1      1      1      0      0      0      0
## 34       4      6      2     11      4      4      4      6      9     17      6     13
## 35      14      8      2     10     13      6      5     38     26     30    122    148
## 36    1023   1286   1749   1175    697    352    273    244    325    376    397    366
## 37    4323   8076  14255  10846   9817  13128  14398  19415  20475  21049  30069  35529
## 38       0      0      0      0      0      0      0      0     24    257    400    470
## 39       0      0      0      0      0      0      0      0      0      0      0      1
## 40     439    614    652    582    464    375    371    381    578    929   1306   2259
## 41       2      1      3      0      2      4      4      5      2      4      1      3
## 42       5      3      6     13      4     14     11     15     25     44    102    119
## 43      92     99    156    216    184     83     89    118    135    103    100    106
## 44      37     42     62     62     67     68    101    102     67     57    110    118
## 45       0      0      0    151    938    692    647    541    622    676    993    715
## 46     122    135    158    220    374    360    421    508    566    531    696    842
## 47      55     27     37     29     42     24     16     31     36     19     15     16
## 48       0      0      1      0    107    155    128    149    182    206    524    470
## 49       0      1      4     16      0      1      0      0      4      1      4      6
## 50      48    116    223    439    404    309    529    796    663    768    937   1232
## 51     129    118    111    158    186     93    111     70     83     63     81     93
## 52       6     10     14     34     23     10     13     19     28     30     85    145
## 53      96     77    127    125    106     57     77     66     68     56     67     72
## 54     409    363    517    557    646    432    276    306    285    210    254    241
## 55     278    552    643    644    547    431    368    310    317    295    291    342
## 56    1663   2365   1860   1558   1598   2375   2821   2561   2137   1387   1378   1642
```

```
## 57    2955  4384  7124  5670  2977  1217   722   736   603   477   424   569
## 58       0     0     1     2     1     0     0     0     3     1     0     4
## 59       0     0     0     0     0    33    58   100    80    77    79   153
## 60       0    14     4    30    51    39    70    89    73    50    54    58
## 61    1096   890  1168  1876  1779  1204   870   999   739   563   678  1074
## 62     736  1172  1619  1782  1317  1016   674   621   448   388   360   458
## 63      78    73    63    76    98    99    76    58    82    55    63    70
## 64    2332  2177  2911  3487  3709  2759  3332  2623  2473  3214  3343  3765
## 65       4    10     5     3     8     4     5     9    12    14    20    16
## 66       6    12    21    51    43    15    23    19    25    17    18    23
## 67       0     0     0     8    22    27    67    49    46    92    46    83
## 68    1706  1273  1273  1181  1488  1255  1553  1686  1397  1363  1717  1703
## 69     429   449  1134  2502  2201  1341  1475  1219  1274  1040   845   959
## 70     773   538   592   492   445   275   220   221   190   141   149   150
## 71     170   172   268   434   492   235   364   366   387   330   294   372
## 72     773  1023  2156  1906  1392   757   640   655   519   358   287   329
## 73      17    10    44    36    32    16    49    61    38   107   100   168
## 74       4     4     4     1     2     2     2     3     4     0     1     1
## 75    3270  2824  3266  2932  3399  4181  3935  2324  1795  1238  1366  1308
## 76    2377  2379  2829  2399  3655  2100  2014  1955  1645  1295  1439  1631
## 77     138   187   688   840   551   291   270   299   225   167   173   201
## 78     979   780   775   795   603   349   306   364   319   337   408   418
## 79       3     2    11    17    15    11     9    14    11    20    17     9
## 80   10343 12041 13734 13673 21496 18620 18489 23859 22268 17241 18974 28572
## 81     260   227   252   243   278   262   205   231   166   165   525  1138
## 82    3781  3655  6250  6814  3959  2785  3956  6205  7982  7057  6208  5884
## 83     911   557  1013  1498  2103  1500  2034  2675  2564  2037  2159  2591
## 84    1378   845   705   533   436   331   231   276   220   170   162   178
## 85    1762  1596  1358  1259  1584  1699  2224  2515  2998  3172  2387  2510
## 86    1068   895   711   623   663   558   508   476   491   399   410   383
## 87    3946  4945  5056  5991  6065  3913  3619  3282  2847  2253  2358  2482
## 88     494   379   506   605   907   956   826   994   924   897  1083  1010
## 89     785   841   807   909  1141  1173  1006  1070  1317   999  1218  1511
## 90       0     0     0     3    24    42    56   152   593   884   537   450
## 91    1140   869   605   529   478   414   434   369   223   203   310   495
## 92       2     0     0     0     1     0     1     1     0     2     0     1
## 93      19    26    31    96   109    99   130   187   108   121    80   114
## 94       0     0     0     0     7     8    10     8    43    63    68    56
## 95      44    34    33    63    44    52    40    24    31    16    31    36
## 96       0    10    17    23    47    80    73    67   123   119   127   130
## 97    7157 13568 12567  6915  4902  2751  2228  1919  1472  1329  1594  1903
## 98       5     1     4     4     7     2     3     9     2     1     4     1
## 99       7     5    11    52    37    40    55    59    61    28    36    56
## 100     77    47    86    89    85    74   116   128   156   113   157   208
## 101      1     0     1     2     3     1     0     7     2     0     2     0
## 102      1     5    11    43    63    84   103    87   114    74    96   116
## 103      8     1     3     1    18     9     1     7     9     3     1     5
## 104     27    28    37    34    55    16    30    35    56    48    34    32
## 105      4    10     9     4    12     6     5     6    11     8    14    12
## 106   2346  1917  1338  1486  1000   727   490   382   319   214   299   360
## 107      0     0     0     3     3     0     0     0     0     1     0     1
## 108      7    13    31    90    51    35    36    67    26    43    30    66
## 109     68    38    29    28    12    10    15    21    12    15    13    10
## 110      0     0     0     0     0     0     0     0     0     0     0     0
```

```
## 111     6     4     5     7     8     6     3    10    11     6    11    15
## 112   399   401   358   336   276   176   147   159   136   159   138   199
## 113  1017  1193  1134  1189  1139   776   758  1234  1689  1379  1679  1662
## 114     1     3     0     0     3     1     1     1     0     0     0     1
## 115     0     1     1     1     0     1     1     8     1     0     1    17
## 116     0     0     0     0     0     0     0     0     0     0     0     0
## 117  1060  1313  1390  1055  1042   660  1069   939  1095  1262  1870  2664
## 118     5     3     6     6     8     3     5     1     2     8     8     3
## 119    77   133   104    62   100   172   199   229   205    68    98   121
## 120     2     2     4     0     5     0     9     2     0     0     4     9
## 121     0     0     0     0     0     0     0     0     0     0     1     1
## 122     4    23    29    32    40    31    66   132   155   104   157   236
## 123   825   637   614   609   637   532   596   994   712   653   873   838
## 124     0     0     0     0     0     0     0     0     0     0     0     0
## 125   237   270   227   341   352   234   210   219   181   146   164   212
## 126   705   710  1517  2062  1069   261   251   248   195   124   144   140
## 127     1     1     7     7     4     2    13     7    14    12    19    20
## 128   195   181   281   498   428   323   430   531   657   757   966  1182
## 129    76    83   103    74    92    60    65    70   104    31    36    56
## 130     1     5     0     5     1    12    11     2     7     4     3     7
## 131  2261  2470  3079  4071  4777  4666  4994  9125 13073  9068  9979 15400
## 132     0     0     0     0     0     0     0     0     0     0     0     0
## 133   108   116   658   611   420   103    63    73    70    37    22    45
## 134     0     1     2     4     0     5     1     2     0     0     1     4
## 135    48    56    51    94    75    46    39    38    30    25    34    29
## 136  1667  1384  1522  1632  1274   993   827   845   676   493   560   603
## 137 11865 12509 12718 13670 20479 19532 15864 13692 11549  8735  9734 10763
## 138 16025 17040 16028 12145  6960  3550  2405  2136  1758  1488  1354  1471
## 139  8570  8452  6286  3328  2347  1599  1405  1237  1167   625   458   469
## 140     0     2     6     5     3     2     4     4     7     3     7     4
## 141  2979  2087  2598  3790  3819  3005  3501  3250  4093  4938  7108  7618
## 142     0     0     0    20    70   225   273   230   294   216   199   288
## 143  1582  2252  2337  3147  3676  3495  4279  3909  3993  3033  3538  4539
## 144     0     0     0   172   906  1327  1819  2640  3708  4388  4053  3843
## 145    11    16    18    53    68    73   159   227   144   192   410   383
## 146    45    32    31    52    29    20    20    18    22    12     9    11
## 147    76    95   126   120   142    76   100   111    84    57    83    94
## 148   133   179   288   290   370   187   243   256   272   193   209   279
## 149     1     2     3     1     5     3     2     2     3     4     0     1
## 150     0     1     0     0     0     0     0     0     0     0     0     0
## 151     0     0     0     0     0     0     0     0     2     0     0     1
## 152    41    22    47    71    55    43    40    84    78    71    74    89
## 153    22    38    71    80    77    49    67   122    82   107   116   121
## 154     0     0     0     0     0     0     0     0     0     0     0     0
## 155    25    78   233   369   191    34    19    27    12    18    17    15
## 156    18    12    41    59    24    36    48    63    83    53    42   308
## 157  1269   843   657   492   474   375   407   409   287   231   437   444
## 158     0     0     1     0   113   103   143   232   236   289   500   460
## 159     0     0     0     5    46    47    22    41    26    15    35    24
## 160   401  1059  3266  5794  3734  1576  2000  1541  1084  1397  1652  1568
## 161  1301   902   823  1059  1549  2366  1455  1308  1729  1350  1478  1763
## 162   168   122   165   130   160    84    78   105    88    87    81    93
## 163  2758  3525  7266 13102  9563  7150  9368  6484  5415  3566  4982  6081
## 164     0     0     0     0     0     0     0     8    26   146   180   238
```

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```
## 165      98    151    230    510    432    361    492    714    832    639    589    914
## 166      24     26     13     53     51     32     58     51     35     22     11     16
## 167       3      4      1      4      2      3      5      2      4      3      4      2
## 168     182    130    167    179    203    192    176    161    151    123    170    138
## 169     523    505    602    666    728    475    687    823    666    510    536    471
## 170    1454   1791   1596   1172   1247    965   1053    942    859    892    823    924
## 171       0      0      0      0      5      5      5      2     11      4      4      5
## 172     177    171    219    219    279    237    172    195    152    201    246    258
## 173       0      0      0      0     65    225    193    138     71    106    180    237
## 174      14     17     23     39     38     18     49     75     52     53     52     57
## 175       9      7      4      4      5      7      9      8      8      2      6      0
## 176    3054   2843   3026   4374   4246   2338   2591   2198   1748   1189   1166    899
## 177     242    326    306    315    245    197    271    256    242    237    323    437
## 178     488    767    941   1116   1316    908    732    638    679    777    806   1101
## 179       0      0      0      0      1      1      0     10      6      4      2      7
## 180       0      0      0      1      0      0      0      0      0      0      0      0
## 181      47     75     69    143     79     54     91     62     43     40     51     64
## 182       0      0      0    103    761   1289   1751   2684   2518   2702   2836   3351
## 183      17      7     23     27     11     13      8     33     27     25     24     27
## 184   23795  31668  23380  34123  33720  39231  30145  29322  22965  10367   7045   8840
## 185     662    739    577    398    407    286    313    264    211    138    157    200
## 186    6790   5892   6054   6842   7435   5901   4890   5515   4753   4437   5196   5433
## 187     144    111    229    299    437    125    164    171    117     87     93     75
## 188       0      0      0     12     44     33     34     58     75     97    106    101
## 189       0      1      0      4      0      0      0      0      0      0      0      0
## 190     304    344    487    610    490    334    402    520    686    489    464    443
## 191    3004   3801   5870   5416   6547   5105   3723   2462   1752   1631   1419   1803
## 192       0      0      1      0      0      0      0      0      0      0      0      0
## 193      18      4     18     41     41     39     73    144    121    141    134    122
## 194      68     77     69     73     46     51     41     34     72     34     51     39
## 195     187    129     94     61     72     78     58     39     44     43     49     98
##       X2001  X2002  X2003  X2004  X2005  X2006  X2007  X2008  X2009  X2010  X2011  X2012
## 1     4067   3697   3479   2978   3436   3009   2652   2111   1746   1758   2203   2635
## 2     1602   1021    853   1450   1223    856    702    560    716    561    539    620
## 3     3418   3406   3072   3616   3626   4807   3623   4005   5393   4752   4325   3774
## 4        0      0      0      0      0      1      0      0      0      0      0      0
## 5        1      0      2      0      0      1      1      0      0      0      0      1
## 6      169    168    165    268    295    184    106     76     62     61     39     70
## 7       25     17     25     14     24     32     15     32     38     27     37     51
## 8      635    865   1745   1591   1153    847    620    540    467    459    278    263
## 9       87    132    153    147    224    218    198    205    267    252    236    258
## 10     799    747    876    930    909    875   1033   1018   1018    933    851    982
## 11     134     87    113    118    122    102     98     91    109    124     84    102
## 12      98    186    167    230    359    236    203    125    165    209    138    161
## 13      20     17     14     13     14     18     23     30     27     25     40     60
## 14      13     17     15     12     12     12     22      9     35     28     21     39
## 15    3831   2944   2137   2660   4171   4014   2897   2939   2104   4721   2694   2640
## 16     148    122     74     90    111     97    130    134    125    121     97    132
## 17     430    435    435    543    558    439    568    524    454    438    357    277
## 18     340    307    320    411    400    302    363    335    358    363    332    402
## 19      24     35     16     25     37     24     28     48     38     39     36     34
## 20      66     71     78    112     95    116    183    205    238    290    284    391
## 21       6      8      7      1      5     10      7     36    865   1464   1879   1075
## 22      72     57     59     85    134    139    107    143    214    180     86     83
```

```
## 23     801    433    267    188    211    217    209    182    156    168    140    121
## 24       2      4      4      9      7     11      8     28     15     42     53     64
## 25     847    745    839    917    969   1181   1746   2138   2509   2598   1508   1642
## 26       3      4      6      3      4      5     11     10      5     12      6      3
## 27    1283   1517   1507   2022   1738   1419   1172    994    784    556    365    451
## 28      46     37     34     97     91    147    136    139    162    186    144    269
## 29     334    364    383    559    626    468    614    448    566    529    604    684
## 30       5      2     13      3      5      7      2      5      1      3      3      6
## 31     259    230    277    348    370    529    460    354    203    200    196    233
## 32     206    222    301    436    604    697   1025   1279   1344   1800   1638   2507
## 33       0      0      0      0      0      0      0      0      0      0      1      1
## 34       6     20     10     13     49     18     30     28     19     26     18     45
## 35      90     76     64     92    126     96    131     95     87     98     79     97
## 36     369    401    347    383    384    427    530    350    375    340    174    291
## 37   36434  31961  36439  36619  42584  33518  27642  30037  29622  30391  28502  33024
## 38     379    430    446    536    729    712    674    897    657    623    591    728
## 39      15     28     21     21     21     32     16     12     21     21     13     33
## 40    2965   3283   4318   4566   6424   6535   5357   5452   4652   5218   4366   3741
## 41      14      2     11      6      5      7     11      3     19     22     14     18
## 42     106     84    112    142    136    143     87     72     70     75     81     91
## 43     134    106    105    165    188    279    281    246    217    190    149    183
## 44     143    184    119    256    294    431    619    646    668   1066    636   1024
## 45     376    304    177    151    128    102    102    131     92     91    135    112
## 46     950    872    877    866    999   1064   1350   1300   1433    961    962   1304
## 47      22     13     17     11      7      9      4      7      6     18      6     12
## 48     290    226    181    191    193    146    137    104    159    168    128    173
## 49       8     11     18     15     14     10      7     19     11     45     97     66
## 50    1248   1103   1233   1465   1521   1623   1466   1397   1581   1239   1224   1714
## 51      81     70     89     89     62    101     97    108     81     92     93     94
## 52      96     62     43     67     93     68     50     47     70    123    127    164
## 53      82     62     65     50     59     72     79     60     59     43     36     43
## 54     264    202    234    270    303    295    311    438    391    479    739    604
## 55     353    418    361    417    491    525    419    437    373    353    348    282
## 56    2595   2039   2230   2393   2496   2190   2356   3347   3496   5982   4663   5555
## 57     453    473    446    442    436    430    929   1115    845    787    691    641
## 58       1      2      2      2      3      4      5      1      5      4      4      4
## 59     221    176    262    414    528    700    699    799    904    931   1182   1335
## 60      30     38     56     27     26     18     34     34     26     28     15     26
## 61    1062    818   1399   1535   1506   1801   1512   1613   1289   1865   2163   1864
## 62     643    611    561    495    298    277    304    321    311    398    316    270
## 63      53     59     65     54     67     51     62     89     63     63     72     62
## 64    3806   3463   3568   4391   4429   4002   4290   4532   5051   4646   4080   6280
## 65      26     24     42     33     67     68    101     86     86     64     63     74
## 66      22     10     10     10     29     38     32     25     10     37     24     18
## 67     124    123    127    106    114    125    132    112    128    126    139    147
## 68    1456   1375   1865   2020   2226   2767   2449   3833   3887   2956   2053   1702
## 69     782    696    564    738    851    710    688    629    659    802    528    531
## 70     135    107    117    120    100     74    110    107    119    101    102    146
## 71     354    259    222    296    283    363    360    284    325    208    173    142
## 72     269    242    179    217    190    230    258    263    264    266    288    358
## 73     177    205    196    281    256    342    415    327    347    395    352    407
## 74       3      2      6      4      7     12      7      2      0      2      2      4
## 75    1707   1479   1410   1341   1215   1286   1277   1137   1180    953    804    676
## 76    2433   2174   1930   1652   1682   1619   1598   2491   2080   4744   6503   5868
```

```
## 77     180    143    105    133    166    164    165    187    169    386    538    436
## 78     627    537    489    671    516    520    425    383    312    354    287    300
## 79      26     11     17     23     10      2     15     13     15     30     38     42
## 80   31223  31889  27155  28235  36210  33848  28742  28261  29456  34235  27509  30933
## 81     907    709    515    552    632    613    657    661    504    712    390    395
## 82    6169   8129   5918   6348   5837   7480   6974   6475   6580   7477   7479   7534
## 83    2821   2432   1515   1796   2226   1788   2406   3543   5450   5941   6196   4041
## 84     190    178    192    244    224    283    300    412    395    547    525    725
## 85    2436   2539   2314   2788   2446   2625   2401   2562   2316   2755   1970   2134
## 86     410    374    321    334    344    325    320    370    429    434    374    440
## 87    2838   2524   2054   2237   1945   1722   2141   2334   2456   2321   2059   2182
## 88    1092    806    817    973   1067   1212   1250   1284   1194   1168   1265   1214
## 89    1904   1499   1614   1733   1940   1827   1421   1581   1235   1831   1635   1206
## 90     501    418    542    545    506    408    436    394    431    377    381    462
## 91     651    630    678    685    693    622    449    453    489    507    585    725
## 92       1      0      0      0      1      0      0      1      1      0      0      2
## 93     107     74     72     74     66     35     62     53     68     67     58     73
## 94      95    124     99    245    173    161    135    168    173    157    159    278
## 95      40     49     22     38     42     74     53     32     39     54     22     25
## 96     175    156    110     94     77     69     88     67     85     70    103    202
## 97    2578   2332   3179   3293   3709   3802   3467   3566   3077   3432   3072   1614
## 98       0      2      2      2      4      0      4      1      8      7      1      0
## 99      60     57    139    409    581    356    153     74     94    162    106     58
## 100    228    210    153    196    196    281    198    306    282    384    352    299
## 101      2      0      1      0      1      0      0      1      1      0      2      1
## 102    183    125    194    220    167    113    108    109     63     57     52     77
## 103      5     17      9      9     10      9      9      3      5      8     11      6
## 104     57     59     48     79     88     96    115    118    169    178    148    165
## 105      5      7      3     17     23     15     13      5     10     28     16      9
## 106    460    480    419    401    593    580    600    658    640    802    409    358
## 107      0      1      0      1      0      0      2      1      7      4      3      1
## 108     67     62     72     87     87    114    143    154    164    170    155    191
## 109     24     16     28     28     28     24      7     21     18     17      8      9
## 110      0      0      0      0      0      0      2      0      0      0      0      0
## 111     30     27     23     60     86    124     96    112     83     74     54     77
## 112    393    348    566    702    696    512    507    714    872   1455   1146    799
## 113   1939   1894   1754   2259   2837   2844   3239   2856   3092   3865   3947   4227
## 114      1      1      1      1      1      1      1      0      0      4      1      3
## 115     17     20     28     34     59     64     82     59    118    169    103     68
## 116      0      0      1      0      0      0      7     19     10     14     19     26
## 117   4067   4174   3369   3686   2939   3322   4021   4226   5532   6242   4399   3878
## 118      2      5      3      8      5      9      5      5     12      7      3      4
## 119    113    164    263    191    210    953   1887    975   1153    556    368    193
## 120      9     10      7      9      6     19     13     26     14     16     23     24
## 121      3      2      4      1      1      1      0      0      1      0      0      0
## 122    272    363    313    404    607    540    511    581    561   1392   1129   1185
## 123    806    676    617    749    813    837    615    818    786    759    586    504
## 124      1      0      1      0      0      0      0      1      0      0      0      0
## 125    360    321    345    350    370    318    350    480    520    490    375    417
## 126    108     69     88     67     79     96     76    124    116     94    123    106
## 127     23     30     30     38     59     57     75     75     82     80     90     95
## 128   1426   1403   1064   1518   2236   2594   2375   2109   3156   3906   3103   3443
## 129     78     74     77     73     57     53     73     66     75     46     49     53
## 130     12      7     11     12     14     18     16     10      7     14     10     13
```

```
## 131 16708 15110 13205 13399 14314 13127 10124  8994  7217  6811  7468 11227
## 132     0     0     0     0     0     0     1     0     0     0     0     0
## 133    50    48    54    38    57    73    63    52    73    65    49    34
## 134     2     0     4     1     1     0     0     9     1     3     0     3
## 135    34    60    88    74    75    88    98    95    88    89    83    55
## 136   849   855  1023  1460  1653  1473  1490  1094  1884  1283   886   787
## 137 13836 11707 12758 14004 18139 18400 19837 24887 28573 38617 36765 34315
## 138  1601  1447  1394  1533  1405  1263  1235  1267  1013   795   720   779
## 139   531   364   329   336   338   424   405   665   623   629   528   560
## 140    21     4     4     5    11     2     5     9     6    18     3    14
## 141  9619  7342  7117  5352  5832  6215  5920  7294  5874  5537  4588  5316
## 142   513   612   592   628   655   803  1099  1127  1535  1988  1367  1416
## 143  5652  5765  5541  5755  5048  4468  3834  2837  2076  1922  1776  1588
## 144  4351  3941  3718  3989  3972  3117  2983  2690  2931  2288  1963  2079
## 145   286   215   290   299   378   360   420   358   415   396   492   562
## 146    11     8    12     8    11     3    10    25    11    22    12    21
## 147   116    82    89   110   185   190   255   298   257   249   261   382
## 148   288   240   199   294   343   383   579   434   511   434   451   523
## 149     2     2     3     3     2     0     1     4     2     5     3     2
## 150     0     0     1     0     0     0     0     0     0     1     0     0
## 151     0     0     0     1     1     1     0     0     1     2     0     0
## 152    98    71    70   128   198   252   188   249   246   330   278   286
## 153   129   165   171   210   278   416   433   555   668   765   740   949
## 154     0     0     0     0     0     3    50   259   365   271   299   395
## 155     9     4    13    15    25     8     9    18     4    10    10     6
## 156   386   412   391   347   191   138    92   103    70    63    96    72
## 157   473   588   391   311   392   298   690   734   366   805   219   146
## 158   585   615   501   597   369   241   215   125   128   135   134   136
## 159    22    16    18    17    23    11    29    18    27    12    13    36
## 160  1155   730   957  1364  1198  1061  1166  1015  1214  1528  1535  1582
## 161  1899  1498  1245  1175   988  1111  1200  1123  1188  1238   959  1243
## 162    79    87    89   133   126   124   137   169   195   174   179   262
## 163  5861  5279  4892  4495  4930  4714  4123  4756  4547  4422  3309  3338
## 164   343   266   323   376   453   627   441   481   400   654   555   533
## 165  1105  1489  1862  1823  1310  1039   683   622   422   612   531   444
## 166    22    22    22    17    15    16    20     9    12    13    11    16
## 167     2     1     0     8     7     7     5     6    10     3    13    17
## 168   184   149   161   129   205   139   193   165   167   159   134   140
## 169   383   276   346   337   270   258   308   357   328   285   266   243
## 170  1067   956  1085  1116  1458  1145  1056   919   917  1039  1005   650
## 171    20     9     7    14    85    46    44    15    50    52    47    34
## 172   309   547   439   392   575   500   487   519   512   499   396   296
## 173   291   353   638   443   285   256   211   191   198   188   130   126
## 174    94   105   106   163   157   149   235   351   400   354   261   299
## 175     6     2     5     5     2     0     1     0     5     5     2     3
## 176   904   928   707   730   857   794   975  1002  1134   915   588   586
## 177   788   661   669   764   756  1065   869   950  1195  1299  1442  1503
## 178  1184  1301  1338  1736  2065  1638  1463  1122  1238  1492  1257  1068
## 179    10    11    22    16    40    26    37    13    20    30    20    20
## 180     0     0     0     2     0     0     1     0     0     0     1     0
## 181    94    90   117   160   239   201   170   204   185   216   213   222
## 182  3514  3520  2759  2431  2270  1973  2218  1937  2367  3159  2515  2265
## 183    41    37    32    41    31    42    37    33    37    86    60    54
## 184 11728  8046  6797  7533  7258  7140  8216  8979  8876  8724  6204  6195
```

```
## 185    301   298   320   310   274   291   195   230   136   200   215   224
## 186   5604  4948  5543  6990  8394  9613  9463 10190  8995  8142  7676  7891
## 187     64    91   103   130   217   175   147   160    99    93    81    47
## 188    102   144   155   175   330   262   284   215   288   289   162   235
## 189      1     0     1     1     1     1     0     0     1     0     0     0
## 190    560   524   699  1224  1211  1192  1335  1239  1353   998  1452  1373
## 191   2117  2291  1713  1816  1852  3153  2574  1784  2171  1942  1723  1731
## 192      0     0     0     0     0     1     0     0     0     0     0     0
## 193    181   171   113   124   161   140   122   133   128   211   160   174
## 194     78    50    46    56    91    77    71    64    60   102    69    46
## 195    110   191   669  1450   615   454   663   611   508   494   434   437
##      X2013  Total
## 1     2004  58639
## 2      603  15699
## 3     4331  69439
## 4        0      6
## 5        1     15
## 6       45   2113
## 7       25    981
## 8      282  19596
## 9      207   3310
## 10    1121  23829
## 11      90   4985
## 12      57   2649
## 13      55    808
## 14      32    475
## 15    3789  65568
## 16      97   6923
## 17     247   7975
## 18     379  10762
## 19      53   1083
## 20     397   2852
## 21     487   5876
## 22     107   3205
## 23     119  21855
## 24      76    396
## 25    1714  29659
## 26       6    600
## 27     512  23310
## 28     322   2043
## 29     480   8110
## 30       2    201
## 31     288   6538
## 32    2439  16021
## 33       2     20
## 34     169    550
## 35      86   1653
## 36     273  21359
## 37   34129 659962
## 38     774   9327
## 39      29    284
## 40    3631  72088
## 41      22    194
## 42     114   1686
```

```
## 43     122    4489
## 44    1170    8291
## 45     125    8001
## 46    1402   20365
## 47      16    1126
## 48     174    4192
## 49      17     388
## 50    2050   25582
## 51      81    3901
## 52     201    1646
## 53      48    2470
## 54     590   11193
## 55     418   12233
## 56    4165   72745
## 57     639   54878
## 58      11      61
## 59    1719   10450
## 60      45     935
## 61    1606   35136
## 62     228   20609
## 63      76    2781
## 64    5623  109091
## 65      90     952
## 66      33     603
## 67     125    2068
## 68    1217   63912
## 69     517   26032
## 70     298   12410
## 71     170    9091
## 72     345   19465
## 73     463    4891
## 74       0      83
## 75     656   75785
## 76    4152   84813
## 77     350    7770
## 78     425   16822
## 79      72     570
## 80   33087  691904
## 81     387   13150
## 82   11291  175923
## 83    4918   69789
## 84    1015   16964
## 85    1945   66508
## 86     545   22624
## 87    2479  106431
## 88     982   27707
## 89    1255   35406
## 90     348    8490
## 91     664   17228
## 92       0      15
## 93      48    2025
## 94     123    2353
## 95      15    1089
## 96     213    2326
```

```
## 97    2172 115359
## 98       6    107
## 99      39   2759
## 100    255   4909
## 101      0     40
## 102    145   2414
## 103      7    215
## 104    229   2194
## 105     10    294
## 106    204  24417
## 107      1     30
## 108    190   2188
## 109      4   1546
## 110      0      2
## 111     57   1016
## 112   1203  15690
## 113   3996  58712
## 114      1     29
## 115     99    952
## 116      9    105
## 117   3261  72267
## 118     12    160
## 119    262   9245
## 120     83    320
## 121      1     18
## 122   1308  10222
## 123    395  26884
## 124      2      5
## 125    415  10386
## 126     96  12095
## 127    105    952
## 128   4172  39732
## 129     59   2327
## 130     11    224
## 131  12603 241600
## 132      0      1
## 133     43   3161
## 134      3     64
## 135     66   1944
## 136    682  32652
## 137  29544 511391
## 138    852 139241
## 139    630  74167
## 140      6    157
## 141   4509 142581
## 142   1231  15381
## 143   1512  93585
## 144   2466  63344
## 145    415   6691
## 146     18    653
## 147    392   4802
## 148    538   9707
## 149      0     78
## 150      0      5
```

```
## 151      1     10
## 152    267   3425
## 153    818   7362
## 154    297   1939
## 155      5   1266
## 156     63   3351
## 157    141  14579
## 158    105   5963
## 159     20    523
## 160   2028  42109
## 161   1240  40568
## 162    331   5018
## 163   2394 148358
## 164    462   6512
## 165    343  18506
## 166      4    739
## 167     39    188
## 168    140   5866
## 169    201  15678
## 170   1009  31485
## 171     39    503
## 172    400   9174
## 173    112   4637
## 174    316   3545
## 175      5    142
## 176    427  50016
## 177   1627  17583
## 178    729  31781
## 179     14    310
## 180      0      8
## 181    206   3450
## 182   2487  51410
## 183     46    836
## 184   5827 551500
## 185    182  12496
## 186   8501 241122
## 187     58   4715
## 188    167   3368
## 189      0     11
## 190   1022  21267
## 191   2112  97146
## 192      0      2
## 193    217   2985
## 194     59   1677
## 195    407   8598
```

#Identify and remove duplicate data from your data set

```
SampleDuplicate<- c(1,1,2,3,4,1,5,6)

SampleDuplicate
```

```
## [1] 1 1 2 3 4 1 5 6
```

```
duplicated(SampleDuplicate)
```

```
## [1] FALSE  TRUE FALSE FALSE FALSE  TRUE FALSE FALSE
```

```
    SampleDuplicate[duplicated(SampleDuplicate)]
```

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

```
    SampleDuplicate[!duplicated(SampleDuplicate)]
```

```
## [1] 1 2 3 4 5 6
```

#Reorder multiple rows in descending order.

```
    library(dplyr)
```

```
    Dataset%>%arrange(desc(X2001), desc(X2002))
```

```
##                                                            Country
## 1                                                            China
## 2                                                            India
## 3                                                         Pakistan
## 4                                                      Philippines
## 5    United Kingdom of Great Britain and Northern Ireland
## 6                                                Republic of Korea
## 7                                        Iran (Islamic Republic of)
## 8                                                        Sri Lanka
## 9                                                          Romania
## 10                                        United States of America
## 11                                              Russian Federation
## 12                                                         Morocco
## 13                                                     Afghanistan
## 14                                                      Bangladesh
## 15                                                          France
## 16                                                         Ukraine
## 17                                                         Algeria
## 18                                                        Colombia
## 19                                                         Jamaica
## 20                                                            Iraq
## 21                                                           Egypt
## 22                                                         Lebanon
## 23                                                          Israel
## 24                                                           Haiti
## 25                                                        Viet Nam
## 26                                                          Mexico
## 27                                                          Jordan
## 28                                                    South Africa
## 29                                                          Guyana
## 30                                                          Albania
## 31                                                          Poland
## 32                                                         Germany
## 33                                                         Nigeria
## 34                                                        Bulgaria
## 35                              Democratic Republic of the Congo
## 36                                                          Turkey
## 37                                                         Somalia
## 38                                                           Sudan
## 39                                                           Japan
## 40                                            Syrian Arab Republic
```

```
## 41                                            Ethiopia
## 42                                                Cuba
## 43                                           Indonesia
## 44                                  Trinidad and Tobago
## 45                                                Peru
## 46                                              Brazil
## 47                                         Netherlands
## 48                              Bosnia and Herzegovina
## 49                                           Australia
## 50                                             Tunisia
## 51                                               Ghana
## 52                                               Kenya
## 53                                                Fiji
## 54                                           Argentina
## 55                                             Hungary
## 56                                            Slovakia
## 57                      Venezuela (Bolivarian Republic of)
## 58                                            Portugal
## 59                                 Republic of Moldova
## 60                                          Kazakhstan
## 61                                           Singapore
## 62                                            Malaysia
## 63                                         El Salvador
## 64                                             Belarus
## 65                                               Italy
## 66                                           Mauritius
## 67                                        Sierra Leone
## 68                                         Switzerland
## 69        China, Hong Kong Special Administrative Region
## 70                                             Croatia
## 71                                               Chile
## 72                                         New Zealand
## 73                                             Grenada
## 74                                             Ecuador
## 75                                   State of Palestine
## 76                                             Belgium
## 77                                             Burundi
## 78                                            Thailand
## 79                          United Republic of Tanzania
## 80             The former Yugoslav Republic of Macedonia
## 81                                      Czech Republic
## 82                    Saint Vincent and the Grenadines
## 83                                              Rwanda
## 84                                               Nepal
## 85                                           Guatemala
## 86                                  Dominican Republic
## 87                                            Cambodia
## 88                                               Libya
## 89                                             Eritrea
## 90                                            Cameroon
## 91                                             Ireland
## 92                                              Sweden
## 93                                           Lithuania
## 94                                               Yemen
```

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## 95                             Honduras
## 96                               Guinea
## 97                               Latvia
## 98                               Angola
## 99                             Barbados
## 100                      CÃ´te d'Ivoire
## 101                               Greece
## 102                           Costa Rica
## 103                              Austria
## 104                              Senegal
## 105                              Georgia
## 106                          Saint Lucia
## 107                              Myanmar
## 108                             Zimbabwe
## 109                            Nicaragua
## 110                               Kuwait
## 111                                Congo
## 112                           Uzbekistan
## 113                           Azerbaijan
## 114                         Saudi Arabia
## 115                             Djibouti
## 116                           Kyrgyzstan
## 117                                 Togo
## 118                               Uganda
## 119                                 Chad
## 120                              Armenia
## 121                             Dominica
## 122                              Denmark
## 123                                Spain
## 124                               Norway
## 125                               Zambia
## 126      Bolivia (Plurinational State of)
## 127                                 Mali
## 128                                Benin
## 129                              Uruguay
## 130                              Liberia
## 131                           Madagascar
## 132                              Finland
## 133                               Panama
## 134                         Burkina Faso
## 135                 United Arab Emirates
## 136     Lao People's Democratic Republic
## 137                             Paraguay
## 138                              Estonia
## 139                           Mauritania
## 140                                Gabon
## 141                              Iceland
## 142                  Antigua and Barbuda
## 143                               Belize
## 144                                Malta
## 145                                Niger
## 146                             Suriname
## 147                             Slovenia
## 148                               Cyprus
```

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## 149                                             Gambia
## 150                                              Qatar
## 151                                            Bahamas
## 152                                         Tajikistan
## 153                                           Mongolia
## 154     China, Macao Special Administrative Region
## 155                                            Comoros
## 156                                            Bahrain
## 157                                               Oman
## 158                              Saint Kitts and Nevis
## 159                                       Turkmenistan
## 160                                            Namibia
## 161                                         Seychelles
## 162            Democratic People's Republic of Korea
## 163                           Central African Republic
## 164                                             Bhutan
## 165                                              Tonga
## 166                                         Luxembourg
## 167                                             Malawi
## 168                                         Cabo Verde
## 169                                  Brunei Darussalam
## 170                                      Guinea-Bissau
## 171                                              Nauru
## 172                                         Mozambique
## 173                                           Botswana
## 174                                              Samoa
## 175                                          Swaziland
## 176                                      Liechtenstein
## 177                                  Papua New Guinea
## 178                                  Equatorial Guinea
## 179                                             Monaco
## 180                                            Andorra
## 181                                           Kiribati
## 182                                      New Caledonia
## 183                                            Vanuatu
## 184                                            Lesotho
## 185                                           Maldives
## 186                                     American Samoa
## 187                                             Canada
## 188                                   Marshall Islands
## 189                                         Montenegro
## 190                                              Palau
## 191                                         San Marino
## 192                            Sao Tome and Principe
## 193                                             Serbia
## 194                                             Tuvalu
## 195                                     Western Sahara
##                     Continent                 Region
## 1                        Asia           Eastern Asia
## 2                        Asia          Southern Asia
## 3                        Asia          Southern Asia
## 4                        Asia     South-Eastern Asia
## 5                      Europe        Northern Europe
## 6                        Asia           Eastern Asia
```

```
## 7                                Asia             Southern Asia
## 8                                Asia             Southern Asia
## 9                              Europe            Eastern Europe
## 10                   Northern America          Northern America
## 11                             Europe            Eastern Europe
## 12                             Africa            Northern Africa
## 13                               Asia             Southern Asia
## 14                               Asia             Southern Asia
## 15                             Europe            Western Europe
## 16                             Europe            Eastern Europe
## 17                             Africa            Northern Africa
## 18   Latin America and the Caribbean             South America
## 19   Latin America and the Caribbean                 Caribbean
## 20                               Asia              Western Asia
## 21                             Africa            Northern Africa
## 22                               Asia              Western Asia
## 23                               Asia              Western Asia
## 24   Latin America and the Caribbean                 Caribbean
## 25                               Asia        South-Eastern Asia
## 26   Latin America and the Caribbean           Central America
## 27                               Asia              Western Asia
## 28                             Africa           Southern Africa
## 29   Latin America and the Caribbean             South America
## 30                             Europe           Southern Europe
## 31                             Europe            Eastern Europe
## 32                             Europe            Western Europe
## 33                             Africa             Western Africa
## 34                             Europe            Eastern Europe
## 35                             Africa             Middle Africa
## 36                               Asia              Western Asia
## 37                             Africa            Eastern Africa
## 38                             Africa            Northern Africa
## 39                               Asia              Eastern Asia
## 40                               Asia              Western Asia
## 41                             Africa            Eastern Africa
## 42   Latin America and the Caribbean                 Caribbean
## 43                               Asia        South-Eastern Asia
## 44   Latin America and the Caribbean                 Caribbean
## 45   Latin America and the Caribbean             South America
## 46   Latin America and the Caribbean             South America
## 47                             Europe            Western Europe
## 48                             Europe           Southern Europe
## 49                            Oceania Australia and New Zealand
## 50                             Africa            Northern Africa
## 51                             Africa             Western Africa
## 52                             Africa            Eastern Africa
## 53                            Oceania                 Melanesia
## 54   Latin America and the Caribbean             South America
## 55                             Europe            Eastern Europe
## 56                             Europe            Eastern Europe
## 57   Latin America and the Caribbean             South America
## 58                             Europe           Southern Europe
## 59                             Europe            Eastern Europe
## 60                               Asia              Central Asia
```

```
## 61                             Asia         South-Eastern Asia
## 62                             Asia         South-Eastern Asia
## 63  Latin America and the Caribbean           Central America
## 64                           Europe            Eastern Europe
## 65                           Europe           Southern Europe
## 66                           Africa            Eastern Africa
## 67                           Africa            Western Africa
## 68                           Europe            Western Europe
## 69                             Asia              Eastern Asia
## 70                           Europe           Southern Europe
## 71  Latin America and the Caribbean             South America
## 72                          Oceania Australia and New Zealand
## 73  Latin America and the Caribbean                 Caribbean
## 74  Latin America and the Caribbean             South America
## 75                             Asia              Western Asia
## 76                           Europe            Western Europe
## 77                           Africa            Eastern Africa
## 78                             Asia         South-Eastern Asia
## 79                           Africa            Eastern Africa
## 80                           Europe           Southern Europe
## 81                           Europe            Eastern Europe
## 82  Latin America and the Caribbean                 Caribbean
## 83                           Africa            Eastern Africa
## 84                             Asia             Southern Asia
## 85  Latin America and the Caribbean           Central America
## 86  Latin America and the Caribbean                 Caribbean
## 87                             Asia         South-Eastern Asia
## 88                           Africa           Northern Africa
## 89                           Africa            Eastern Africa
## 90                           Africa             Middle Africa
## 91                           Europe           Northern Europe
## 92                           Europe           Northern Europe
## 93                           Europe           Northern Europe
## 94                             Asia              Western Asia
## 95  Latin America and the Caribbean           Central America
## 96                           Africa            Western Africa
## 97                           Europe           Northern Europe
## 98                           Africa             Middle Africa
## 99  Latin America and the Caribbean                 Caribbean
## 100                          Africa            Western Africa
## 101                          Europe           Southern Europe
## 102 Latin America and the Caribbean           Central America
## 103                          Europe            Western Europe
## 104                          Africa            Western Africa
## 105                            Asia              Western Asia
## 106 Latin America and the Caribbean                 Caribbean
## 107                            Asia         South-Eastern Asia
## 108                          Africa            Eastern Africa
## 109 Latin America and the Caribbean           Central America
## 110                            Asia              Western Asia
## 111                          Africa             Middle Africa
## 112                            Asia              Central Asia
## 113                            Asia              Western Asia
## 114                            Asia              Western Asia
```

```
## 115                                     Africa              Eastern Africa
## 116                                       Asia                Central Asia
## 117                                     Africa              Western Africa
## 118                                     Africa              Eastern Africa
## 119                                     Africa               Middle Africa
## 120                                       Asia                Western Asia
## 121 Latin America and the Caribbean                             Caribbean
## 122                                     Europe             Northern Europe
## 123                                     Europe             Southern Europe
## 124                                     Europe             Northern Europe
## 125                                     Africa              Eastern Africa
## 126 Latin America and the Caribbean                         South America
## 127                                     Africa              Western Africa
## 128                                     Africa              Western Africa
## 129 Latin America and the Caribbean                         South America
## 130                                     Africa              Western Africa
## 131                                     Africa              Eastern Africa
## 132                                     Europe             Northern Europe
## 133 Latin America and the Caribbean                       Central America
## 134                                     Africa              Western Africa
## 135                                       Asia                Western Asia
## 136                                       Asia          South-Eastern Asia
## 137 Latin America and the Caribbean                         South America
## 138                                     Europe             Northern Europe
## 139                                     Africa              Western Africa
## 140                                     Africa               Middle Africa
## 141                                     Europe             Northern Europe
## 142 Latin America and the Caribbean                             Caribbean
## 143 Latin America and the Caribbean                       Central America
## 144                                     Europe             Southern Europe
## 145                                     Africa              Western Africa
## 146 Latin America and the Caribbean                         South America
## 147                                     Europe             Southern Europe
## 148                                       Asia                Western Asia
## 149                                     Africa              Western Africa
## 150                                       Asia                Western Asia
## 151 Latin America and the Caribbean                             Caribbean
## 152                                       Asia                Central Asia
## 153                                       Asia                Eastern Asia
## 154                                       Asia                Eastern Asia
## 155                                     Africa              Eastern Africa
## 156                                       Asia                Western Asia
## 157                                       Asia                Western Asia
## 158 Latin America and the Caribbean                             Caribbean
## 159                                       Asia                Central Asia
## 160                                     Africa             Southern Africa
## 161                                     Africa              Eastern Africa
## 162                                       Asia                Eastern Asia
## 163                                     Africa               Middle Africa
## 164                                       Asia               Southern Asia
## 165                                    Oceania                  Polynesia
## 166                                     Europe              Western Europe
## 167                                     Africa              Eastern Africa
## 168                                     Africa              Western Africa
```

```
## 169                              Asia       South-Eastern Asia
## 170                            Africa          Western Africa
## 171                           Oceania              Micronesia
## 172                            Africa          Eastern Africa
## 173                            Africa         Southern Africa
## 174                           Oceania               Polynesia
## 175                            Africa         Southern Africa
## 176                            Europe          Western Europe
## 177                           Oceania               Melanesia
## 178                            Africa           Middle Africa
## 179                            Europe          Western Europe
## 180                            Europe         Southern Europe
## 181                           Oceania              Micronesia
## 182                           Oceania               Melanesia
## 183                           Oceania               Melanesia
## 184                            Africa         Southern Africa
## 185                              Asia          Southern Asia
## 186                           Oceania               Polynesia
## 187                   Northern America       Northern America
## 188                           Oceania              Micronesia
## 189                            Europe         Southern Europe
## 190                           Oceania              Micronesia
## 191                            Europe         Southern Europe
## 192                            Africa           Middle Africa
## 193                            Europe         Southern Europe
## 194                           Oceania               Polynesia
## 195                            Africa         Northern Africa
##                   DevName X1980 X1981 X1982 X1983 X1984 X1985 X1986 X1987 X1988
## 1      Developing regions  5123  6682  3308  1863  1527  1816  1960  2643  2758
## 2      Developing regions  8880  8670  8147  7338  5704  4211  7150 10189 11522
## 3      Developing regions   978   972  1201   900   668   514   691  1072  1334
## 4      Developing regions  6051  5921  5249  4562  3801  3150  4166  7360  8639
## 5       Developed regions 22045 24796 20620 10015 10170  9564  9470 21337 27359
## 6      Developing regions  1011  1456  1572  1081   847   962  1208  2338  2805
## 7      Developing regions  1172  1429  1822  1592  1977  1648  1794  2989  3273
## 8      Developing regions   185   371   290   197  1086   845  1838  4447  2779
## 9       Developed regions   375   438   583   543   524   604   656  1202  1106
## 10      Developed regions  9378 10030  9074  7100  6661  6543  7074  7705  6469
## 11      Developed regions     0     0     0     0     0     0     0     0     0
## 12     Developing regions   325   471   447   335   248   328   388   505   685
## 13     Developing regions    16    39    39    47    71   340   496   741   828
## 14     Developing regions    83    84    86    81    98    92   486   503   476
## 15      Developed regions  1729  2027  2219  1490  1169  1177  1298  1658  2038
## 16      Developed regions     0     0     0     0     0     0     0     0     0
## 17     Developing regions    80    67    71    69    63    44    69   132   242
## 18     Developing regions   266   326   360   244   235   214   257   376   352
## 19     Developing regions  3198  2634  2661  2455  2508  2938  4649  5415  3924
## 20     Developing regions   262   245   260   380   428   231   265   384   619
## 21     Developing regions   612   660   755   455   447   348   514  1017  1085
## 22     Developing regions  1409  1119  1159   789  1253  1683  2576  3803  3970
## 23     Developing regions  1403  1711  1334   541   446   680  1212  1497  1389
## 24     Developing regions  1666  3692  3498  2860  1418  1321  1753  2132  1829
## 25     Developing regions  1191  1829  2162  3404  7583  5907  2741  1406  1411
## 26     Developing regions   409   394   491   490   509   425   667   813   916
```

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## 27    Developing regions    177   160   155   113   102   179   181   392   489
## 28    Developing regions   1026  1118   781   379   271   310   718  1470  1305
## 29    Developing regions   2334  2943  3575  2650  1932  2299  3942  6174  2977
## 30     Developed regions      1     0     0     0     0     0     1     2     2
## 31     Developed regions    863  2930  5881  4546  3588  2819  4808  6931  9211
## 32     Developed regions   1626  1977  3062  2376  1610  1441  1233  1704  1482
## 33    Developing regions     81    60    58    58    78    78   114   149   122
## 34     Developed regions     24    20    12    33    11    24    33    52    43
## 35    Developing regions     15    16    17    17    28    11    38    66    46
## 36    Developing regions    481   874   706   280   338   202   257   397   346
## 37    Developing regions      7    10     7    12    14    10    37   190   217
## 38    Developing regions     20    12    11     7    23    32    57    43    54
## 39     Developed regions    701   756   598   309   246   198   248   422   324
## 40    Developing regions    315   419   409   269   264   385   493   927   864
## 41    Developing regions     98    59    54    98   154   157   302   555   690
## 42    Developing regions    306    41    94   104   101   115   102   139    90
## 43    Developing regions    186   178   252   115   123   100   127   213   270
## 44    Developing regions    958   947   972   766   606   699   955  1676  2218
## 45    Developing regions    317   456   401   241   306   328   628   843  1237
## 46    Developing regions    211   220   192   139   145   130   205   244   394
## 47     Developed regions   1889  1858  1852   716   560   510   539   647   832
## 48     Developed regions      0     0     0     0     0     0     0     0     0
## 49     Developed regions    702   639   484   317   317   319   356   467   410
## 50    Developing regions     58    51    55    46    51    57    64    86   130
## 51    Developing regions    172   196    98   122   116   172   215   970   408
## 52    Developing regions    291   296   221   201   218   245   244   628   984
## 53    Developing regions    632   705   814   554   389   446   361   523   561
## 54    Developing regions    368   426   626   241   237   196   213   519   374
## 55     Developed regions    205   310   397   337   310   522   647   676  1139
## 56     Developed regions      0     0     0     0     0     0     0     0     0
## 57    Developing regions    103   117   174   124   142   165   179   229   279
## 58     Developed regions   4473  3486  2432  1433  1398  1451  2617  7684  6888
## 59     Developed regions      0     0     0     0     0     0     0     0     0
## 60    Developing regions      0     0     0     0     0     0     0     0     0
## 61    Developing regions    241   301   337   169   128   139   205   372   808
## 62    Developing regions    786   816   813   448   384   374   425   817  2072
## 63    Developing regions    110   295   882  2587  2666  2769  3106  3558  2720
## 64     Developed regions      0     0     0     0     0     0     0     0     0
## 65     Developed regions   1820  2057  1480   820   858   667   731  1101   885
## 66    Developing regions    306   259   353   170   207   164   325   578   531
## 67    Developing regions      6     6     7     3    12    10    13    57    26
## 68     Developed regions    806   811   634   370   326   314   294   565   508
## 69    Developing regions      0     0     0     0     0     0     0     0     0
## 70     Developed regions      0     0     0     0     0     0     0     0     0
## 71    Developing regions   1233  1069  1078   781   681   533   633  1454   990
## 72     Developed regions    602   480   364   140   164   148   176   208   200
## 73    Developing regions    154   181   231   165   167   168   235   302   165
## 74    Developing regions    238   207   184   155   179   208   240   344   265
## 75    Developing regions      0     0     0     0     0     0     0     0     0
## 76     Developed regions    511   540   519   297   183   181   197   283   333
## 77    Developing regions      0     0     0     0     1     2     1     5     1
## 78    Developing regions     56    53   113    65    82    66    78   117   147
## 79    Developing regions    635   832   621   474   473   460   403   538   532
## 80     Developed regions      0     0     0     0     0     0     0     0     0
```

```
## 81    Developed regions      0    0    0    0    0    0    0    0    0
## 82   Developing regions    147  190  202  154  158  182  209  216  133
## 83   Developing regions      6    6    8    4    3    0    9    3   12
## 84   Developing regions      1    1    6    1    2    4   13    6   13
## 85   Developing regions    114  108  113  366  598  975 1265 1060  702
## 86   Developing regions     40   53  104   88   97   84  307  446  358
## 87   Developing regions     12   19   26   33   10    7    8   14   15
## 88   Developing regions      5    7    9   24   10   31   23   81   43
## 89   Developing regions      0    0    0    0    0    0    0    0    0
## 90   Developing regions      9    2   16    7    8   13   11   18   20
## 91    Developed regions    781  895  707  298  327  287  481 1078 1415
## 92    Developed regions    281  308  222  176  128  158  187  198  171
## 93    Developed regions      1    1    0    0    0    1    0    0    1
## 94   Developing regions      1    2    1    6    0   18    7   12    7
## 95   Developing regions     26   33   30   68   65   69   81  135  111
## 96   Developing regions      0    3    3    6    4    3    5   14   12
## 97    Developed regions      0    0    0    0    0    0    1    0    0
## 98   Developing regions      1    3    6    6    4    3    5    5   11
## 99   Developing regions    372  376  299  244  265  285  251  303  265
## 100 Developing regions     14    8   10    6   21   23   23   20   17
## 101   Developed regions   1065  953  897  633  580  584  547  765  564
## 102 Developing regions     28   35   42   51   75  113   79  116  104
## 103   Developed regions    234  238  201  117  127  165  196  265  198
## 104 Developing regions     13   10    9   11    7   11   16   19   17
## 105 Developing regions      0    0    0    0    0    0    0    0    0
## 106 Developing regions     69   89  133   69   68   80   95   92   77
## 107 Developing regions     80   62   46   31   41   23   18   33   55
## 108 Developing regions     72  114  102   44   32   29   43   68   99
## 109 Developing regions     18   21   27   55  126  468  670 1073  969
## 110 Developing regions      1    0    8    2    1    4    4    9   19
## 111 Developing regions      2    0    1    0    1    2    4    1    1
## 112 Developing regions      0    0    0    0    0    0    0    0    0
## 113 Developing regions      0    0    0    0    0    0    0    0    0
## 114 Developing regions      0    0    1    4    1    2    5    7   29
## 115 Developing regions      0    1    1    5    1    0    4    2    4
## 116 Developing regions      0    0    0    0    0    0    0    0    0
## 117 Developing regions      5    5    2    3    6    5    8   23   11
## 118 Developing regions     13   16   17   38   32   29   40   70   60
## 119 Developing regions      0    0    1    0    0    1    2    3    7
## 120 Developing regions      0    0    0    0    0    0    0    0    0
## 121 Developing regions    104   81   94   65   81   79   50   89   75
## 122   Developed regions    272  293  299  106   93   73   93  109  129
## 123   Developed regions    211  299  260  133  137   98  121  176  137
## 124   Developed regions    116   77  106   51   31   54   56   80   73
## 125 Developing regions     11   17   11    7   16    9   15   23   44
## 126 Developing regions     44   52   42   49   38   44   79  165   63
## 127 Developing regions      4    4    7    3    3    4    3    5    4
## 128 Developing regions      2    5    4    3    4    3    6    4   20
## 129 Developing regions    128  132  146  105   90   92  137  269   99
## 130 Developing regions      1    2    2    1    4    4    3    4    3
## 131 Developing regions     22   10   13   32   30   18   10   42   36
## 132   Developed regions    208  205  170   70   83   69   68   92   89
## 133 Developing regions     13    8   14   10   11   17   16   26   21
## 134 Developing regions      2    1    3    2    3    2    7   18    6
```

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## 135 Developing regions     0     2     2     1     2     0     5     4     1
## 136 Developing regions    11     6    16    16     7    17    21    20    22
## 137 Developing regions    45    26    32    40    48    36    34    72    53
## 138  Developed regions     0     0     0     0     0     0     0     0     0
## 139 Developing regions     5     0     3     3     1     1     1     4     3
## 140 Developing regions     2     3     2     2     1     0     0     5     3
## 141  Developed regions    17    33    10     9    13     6    11    11     7
## 142 Developing regions     0     0     0     0    42    52    51    61    34
## 143 Developing regions    16    27    13    21    37    26    25    23    53
## 144  Developed regions   191   242   153    64    60    68    76    78   111
## 145 Developing regions     0     0     1     1     0     0     0     4     0
## 146 Developing regions    15    10    21    12     5    16     7    46    16
## 147  Developed regions     0     0     0     0     0     0     0     0     0
## 148 Developing regions   132   128    84    46    46    43    48    48    56
## 149 Developing regions     0     0     1     0     0     2     4    22     3
## 150 Developing regions     0     0     0     0     0     0     1     0     1
## 151 Developing regions    26    23    38    12    21    28    23    18    22
## 152 Developing regions     0     0     0     0     0     0     0     0     0
## 153 Developing regions     0     0     0     0     0     0     0     0     0
## 154 Developing regions     0     0     0     0     0     0     0     0     0
## 155 Developing regions     0     2     2     0     0     2     1     0     2
## 156 Developing regions     0     2     1     1     1     3     0     2    10
## 157 Developing regions     0     0     0     8     0     0     0     3     0
## 158 Developing regions     5     3     0    16    21    17    36    43    39
## 159 Developing regions     0     0     0     0     0     0     0     0     0
## 160 Developing regions     0     5     5     3     2     1     1     4     3
## 161 Developing regions     5    15     3     4     1     8    13    24    19
## 162 Developing regions     1     1     3     1     4     3     0     0     0
## 163 Developing regions     4     3     1     0     0     0     0     2     3
## 164 Developing regions     0     0     0     0     1     0     0     0     0
## 165 Developing regions     2     4     7     1     2     5     7     0     4
## 166  Developed regions    14     4     2     5     1     3     6     2     4
## 167 Developing regions     5     4     6     3     2     0     4     7     1
## 168 Developing regions     1     1     2     0    11     1     9     3     1
## 169 Developing regions    79     6     8     2     2     4    12    16   103
## 170 Developing regions     0     0     0     0     1     0     0     0     3
## 171 Developing regions     1     0     0     0     0     0     0     0     1
## 172 Developing regions     0     0     7     2     3     1     3     1     5
## 173 Developing regions    10     1     3     3     7     4     2     3     8
## 174 Developing regions     3     7     4     1     3     0     3     0     1
## 175 Developing regions     4     1     1     0    10     7     1     2     7
## 176  Developed regions     1     4     2     0     0     3     0     1     1
## 177 Developing regions     0     2     2     4     2     2     1     1     3
## 178 Developing regions     0     0     0     0     0     0     1     0     0
## 179  Developed regions     0     0     0     0     0     1     0     1     0
## 180  Developed regions     0     0     0     0     0     0     2     0     0
## 181 Developing regions     0     0     0     1     0     0     0     0     0
## 182 Developing regions     0     0     0     0     0     0     0     0     0
## 183 Developing regions     0     0     0     0     0     0     0     0     0
## 184 Developing regions     1     1     1     2     7     5     3     1     6
## 185 Developing regions     0     0     0     1     0     0     0     0     0
## 186 Developing regions     0     1     0     0     0     0     0     1     0
## 187  Developed regions     0     0     0     0     0     0     0     0     0
## 188 Developing regions     0     0     0     0     0     0     0     0     0
```

```
## 189  Developed regions       0       0     0     0     0     0     0     0     0
## 190 Developing regions       0       0     0     0     0     0     0     0     0
## 191  Developed regions       1       0     0     0     0     0     1     0     0
## 192 Developing regions       0       0     0     0     0     0     0     0     0
## 193  Developed regions       0       0     0     0     0     0     0     0     0
## 194 Developing regions       0       1     0     0     1     0     0     0     1
## 195 Developing regions       0       0     0     0     0     0     0     0     0
##      X1989 X1990 X1991 X1992 X1993 X1994 X1995 X1996 X1997 X1998 X1999 X2000
## 1     4323  8076 14255 10846  9817 13128 14398 19415 20475 21049 30069 35529
## 2    10343 12041 13734 13673 21496 18620 18489 23859 22268 17241 18974 28572
## 3     2261  2470  3079  4071  4777  4666  4994  9125 13073  9068  9979 15400
## 4    11865 12509 12718 13670 20479 19532 15864 13692 11549  8735  9734 10763
## 5    23795 31668 23380 34123 33720 39231 30145 29322 22965 10367  7045  8840
## 6     2979  2087  2598  3790  3819  3005  3501  3250  4093  4938  7108  7618
## 7     3781  3655  6250  6814  3959  2785  3956  6205  7982  7057  6208  5884
## 8     2758  3525  7266 13102  9563  7150  9368  6484  5415  3566  4982  6081
## 9     1582  2252  2337  3147  3676  3495  4279  3909  3993  3033  3538  4539
## 10    6790  5892  6054  6842  7435  5901  4890  5515  4753  4437  5196  5433
## 11       0     0     0   172   906  1327  1819  2640  3708  4388  4053  3843
## 12    1060  1313  1390  1055  1042   660  1069   939  1095  1262  1870  2664
## 13    1076  1028  1378  1170   713   858  1537  2212  2555  1999  2395  3326
## 14     387   611  1115  1655  1280  1361  2042  2824  3378  2202  2064  3119
## 15    2332  2177  2911  3487  3709  2759  3332  2623  2473  3214  3343  3765
## 16       0     0     0   103   761  1289  1751  2684  2518  2702  2836  3351
## 17     434   491   872   795   717   595  1106  2054  1842  2292  2389  2867
## 18     439   614   652   582   464   375   371   381   578   929  1306  2259
## 19    3946  4945  5056  5991  6065  3913  3619  3282  2847  2253  2358  2482
## 20     911   557  1013  1498  2103  1500  2034  2675  2564  2037  2159  2591
## 21    1663  2365  1860  1558  1598  2375  2821  2561  2137  1387  1378  1642
## 22    7157 13568 12567  6915  4902  2751  2228  1919  1472  1329  1594  1903
## 23    1762  1596  1358  1259  1584  1699  2224  2515  2998  3172  2387  2510
## 24    2377  2379  2829  2399  3655  2100  2014  1955  1645  1295  1439  1631
## 25    3004  3801  5870  5416  6547  5105  3723  2462  1752  1631  1419  1803
## 26    1017  1193  1134  1189  1139   776   758  1234  1689  1379  1679  1662
## 27     785   841   807   909  1141  1173  1006  1070  1317   999  1218  1511
## 28    1301   902   823  1059  1549  2366  1455  1308  1729  1350  1478  1763
## 29    3270  2824  3266  2932  3399  4181  3935  2324  1795  1238  1366  1308
## 30       3     3    21    56    96    71    63   113   307   574  1264  1816
## 31   16025 17040 16028 12145  6960  3550  2405  2136  1758  1488  1354  1471
## 32    1706  1273  1273  1181  1488  1255  1553  1686  1397  1363  1717  1703
## 33     195   181   281   498   428   323   430   531   657   757   966  1182
## 34      85   172   611  1116   965   687   762   825   732   779   832  1172
## 35      48   116   223   439   404   309   529   796   663   768   937  1232
## 36     488   767   941  1116  1316   908   732   638   679   777   806  1101
## 37     401  1059  3266  5794  3734  1576  2000  1541  1084  1397  1652  1568
## 38      98   151   230   510   432   361   492   714   832   639   589   914
## 39     494   379   506   605   907   956   826   994   924   897  1083  1010
## 40    1454  1791  1596  1172  1247   965  1053   942   859   892   823   924
## 41    1096   890  1168  1876  1779  1204   870   999   739   563   678  1074
## 42     122   135   158   220   374   360   421   508   566   531   696   842
## 43     260   227   252   243   278   262   205   231   166   165   525  1138
## 44    3054  2843  3026  4374  4246  2338  2591  2198  1748  1189  1166   899
## 45    1667  1384  1522  1632  1274   993   827   845   676   493   560   603
## 46     650   650   877  1066   866   566   572   586   591   531   626   845
```

```
## 47     825    637    614    609    637    532    596    994    712    653    873    838
## 48       0      0      0    258   2095   2090   3007   2599   2214   2789   2737    854
## 49     553    620    640    734    886    702    668    699    623    479    523    599
## 50     242    326    306    315    245    197    271    256    242    237    323    437
## 51     429    449   1134   2502   2201   1341   1475   1219   1274   1040    845    959
## 52    1140    869    605    529    478    414    434    369    223    203    310    495
## 53     736   1172   1619   1782   1317   1016    674    621    448    388    360    458
## 54     538    678    763   1023   1022    366    380    396    391    349    318    427
## 55     979    780    775    795    603    349    306    364    319    337    408    418
## 56       0      0      1      0    113    103    143    232    236    289    500    460
## 57     304    344    487    610    490    334    402    520    686    489    464    443
## 58    8570   8452   6286   3328   2347   1599   1405   1237   1167    625    458    469
## 59       0      0      0     20     70    225    273    230    294    216    199    288
## 60       0      0      0      3     24     42     56    152    593    884    537    450
## 61    1269    843    657    492    474    375    407    409    287    231    437    444
## 62    2346   1917   1338   1486   1000    727    490    382    319    214    299    360
## 63    2955   4384   7124   5670   2977   1217    722    736    603    477    424    569
## 64       0      0      0     12     40    114    118    156    349    540    426    515
## 65    1068    895    711    623    663    558    508    476    491    399    410    383
## 66     399    401    358    336    276    176    147    159    136    159    138    199
## 67      18     12     41     59     24     36     48     63     83     53     42    308
## 68     523    505    602    666    728    475    687    823    666    510    536    471
## 69       0      0      0      0      0      0      0      0     24    257    400    470
## 70       0      0      0    151    938    692    647    541    622    676    993    715
## 71    1023   1286   1749   1175    697    352    273    244    325    376    397    366
## 72     237    270    227    341    352    234    210    219    181    146    164    212
## 73     170    172    268    434    492    235    364    366    387    330    294    372
## 74     278    552    643    644    547    431    368    310    317    295    291    342
## 75       0      0      0      0      0      0      0      8     26    146    180    238
## 76     307    303    216    208    240    201    240    279    227    307    209    369
## 77      14     19      9     19     14     28    126    367    207     94    202    342
## 78     177    171    219    219    279    237    172    195    152    201    246    258
## 79     662    739    577    398    407    286    313    264    211    138    157    200
## 80       0      0      0      0     65    225    193    138     71    106    180    237
## 81       0      0      1      0    107    155    128    149    182    206    524    470
## 82     133    179    288    290    370    187    243    256    272    193    209    279
## 83      11     16     18     53     68     73    159    227    144    192    410    383
## 84       4     23     29     32     40     31     66    132    155    104    157    236
## 85     773   1023   2156   1906   1392    757    640    655    519    358    287    329
## 86     409    363    517    557    646    432    276    306    285    210    254    241
## 87      27     34     38     93    418    371    286    216    313    241    165    245
## 88      77     47     86     89     85     74    116    128    156    113    157    208
## 89       0      0      0      0      0     33     58    100     80     77     79    153
## 90      38     34     66     71     78     67    122    178    104    197    220    244
## 91    1378    845    705    533    436    331    231    276    220    170    162    178
## 92     182    130    167    179    203    192    176    161    151    123    170    138
## 93       1      5     11     43     63     84    103     87    114     74     96    116
## 94      18      4     18     41     41     39     73    144    121    141    134    122
## 95     138    187    688    840    551    291    270    299    225    167    173    201
## 96      17     10     44     36     32     16     49     61     38    107    100    168
## 97       0     10     17     23     47     80     73     67    123    119    127    130
## 98       6      8     23     26     22      8     26     38     27     58     49     70
## 99     275    327    373    336    380    179    211    176    153    139    114    122
## 100     37     42     62     62     67     68    101    102     67     57    110    118
```

```
## 101   773   538   592   492   445   275   220   221   190   141   149   150
## 102    92    99   156   216   184    83    89   118   135   103   100   106
## 103   227   158   189   131   132   133   153   191   152   190   117    97
## 104    22    38    71    80    77    49    67   122    82   107   116   121
## 105     0     0     0     8    22    27    67    49    46    92    46    83
## 106    76    95   126   120   142    76   100   111    84    57    83    94
## 107    77   133   104    62   100   172   199   229   205    68    98   121
## 108   187   129    94    61    72    78    58    39    44    43    49    98
## 109   705   710  1517  2062  1069   261   251   248   195   124   144   140
## 110    19    26    31    96   109    99   130   187   108   121    80   114
## 111     5     3     6    13     4    14    11    15    25    44   102   119
## 112     0     0     0    12    44    33    34    58    75    97   106   101
## 113     0     0     0     0    17    18    23    26    38    62    54    77
## 114    41    22    47    71    55    43    40    84    78    71    74    89
## 115     6    10    14    34    23    10    13    19    28    30    85   145
## 116     0     0     0     0     7     8    10     8    43    63    68    56
## 117    14    17    23    39    38    18    49    75    52    53    52    57
## 118    47    75    69   143    79    54    91    62    43    40    51    64
## 119    14     8     2    10    13     6     5    38    26    30   122   148
## 120     0     0     0    22    21    66    75   102   115    89   112   124
## 121    96    77   127   125   106    57    77    66    68    56    67    72
## 122   129   118   111   158   186    93   111    70    83    63    81    93
## 123   168   122   165   130   160    84    78   105    88    87    81    93
## 124    76    83   103    74    92    60    65    70   104    31    36    56
## 125    68    77    69    73    46    51    41    34    72    34    51    39
## 126    68    71   214   247   180    75    61    96    43    33    42    33
## 127     7    13    31    90    51    35    36    67    26    43    30    66
## 128    14    13    13    25    25    18    15    29    32    19    37    35
## 129   144   111   229   299   437   125   164   171   117    87    93    75
## 130     7     5    11    52    37    40    55    59    61    28    36    56
## 131    27    28    37    34    55    16    30    35    56    48    34    32
## 132    78    73    63    76    98    99    76    58    82    55    63    70
## 133   108   116   658   611   420   103    63    73    70    37    22    45
## 134     4     4    22    21    19     3    12    16    23    14    20    31
## 135    17     7    23    27    11    13     8    33    27    25    24    27
## 136    44    34    33    63    44    52    40    24    31    16    31    36
## 137    48    56    51    94    75    46    39    38    30    25    34    29
## 138     0    14     4    30    51    39    70    89    73    50    54    58
## 139     6     4     5     7     8     6     3    10    11     6    11    15
## 140     4    10     5     3     8     4     5     9    12    14    20    16
## 141     3     2    11    17    15    11     9    14    11    20    17     9
## 142    51    31    59    61    44    18    23    21    27    19    12    13
## 143    33    38    41    27    37    41    43    27    33    20    37    28
## 144    68    38    29    28    12    10    15    21    12    15    13    10
## 145     1     1     7     7     4     2    13     7    14    12    19    20
## 146    24    26    13    53    51    32    58    51    35    22    11    16
## 147     0     0     0     5    46    47    22    41    26    15    35    24
## 148    55    27    37    29    42    24    16    31    36    19    15    16
## 149     6    12    21    51    43    15    23    19    25    17    18    23
## 150     0     2     6     5     3     2     4     4     7     3     7     4
## 151    32    18    29    16    20    21    17    30    17    14    13    14
## 152     0     0     0     0     5     5     5     2    11     4     4     5
## 153     0     1     1     1     0     1     1     8     1     0     1    17
## 154     0     0     0     0     0     0     0     0     0     0     0     1
```

```
## 155      2     1     3     0     2     4     4     5     2     4     1     3
## 156      9     6     9     9    11    14    10    17    28    14    27    34
## 157      1     5     0     5     1    12    11     2     7     4     3     7
## 158     45    32    31    52    29    20    20    18    22    12     9    11
## 159      0     0     0     0     1     1     0    10     6     4     2     7
## 160      2     2     4     0     5     0     9     2     0     0     4     9
## 161     25    78   233   369   191    34    19    27    12    18    17    15
## 162      0     1     4    16     0     1     0     0     4     1     4     6
## 163      4     6     2    11     4     4     4     6     9    17     6    13
## 164      1     0     2     2     1     1     4     2     2     1     3     6
## 165      9     7     4     4     5     7     9     8     8     2     6     0
## 166      8     1     3     1    18     9     1     7     9     3     1     5
## 167      4    10     9     4    12     6     5     6    11     8    14    12
## 168      7    14    16    15    11     9     4     7    16     9     3     4
## 169     63    44    65    31    36    14    17     4     6     1     3     6
## 170      4     4     4     1     2     2     2     3     4     0     1     1
## 171      0     0     0     0     0     0     0     0     0     0     1     1
## 172      5     3     6     6     8     3     5     1     2     8     8     3
## 173      8     2     2     4     4     0     2     3     2     0     2     3
## 174      1     2     3     1     5     3     2     2     3     4     0     1
## 175      3     4     1     4     2     3     5     2     4     3     4     2
## 176      1     0     1     2     3     1     0     7     2     0     2     0
## 177      0     1     2     4     0     5     1     2     0     0     1     4
## 178      0     0     1     2     1     0     0     0     3     1     0     4
## 179      1     3     0     0     3     1     1     1     0     0     0     1
## 180      0     3     0     1     0     0     0     0     0     2     0     0
## 181      2     0     0     0     1     0     1     1     0     2     0     1
## 182      0     0     0     0     0     0     0     0     0     0     0     0
## 183      0     1     0     4     0     0     0     0     0     0     0     0
## 184      5     1     4     4     7     2     3     9     2     1     4     1
## 185      0     0     0     3     3     0     0     0     0     1     0     1
## 186      1     2     0     0     0     0     0     0     0     0     0     0
## 187      0     3     3     4     3     1     1     1     0     0     0     0
## 188      0     0     0     0     0     0     0     0     0     0     0     0
## 189      0     0     0     0     0     0     0     0     0     0     0     0
## 190      0     0     0     0     0     0     0     0     0     0     0     0
## 191      0     1     0     0     0     0     0     0     0     0     0     0
## 192      0     0     0     0     0     0     0     0     2     0     0     1
## 193      0     0     0     0     0     0     0     0     0     0     0     0
## 194      0     0     0     1     0     0     0     0     0     0     0     0
## 195      0     0     1     0     0     0     0     0     0     0     0     0
##      X2001 X2002 X2003 X2004 X2005 X2006 X2007 X2008 X2009 X2010 X2011 X2012
## 1    36434 31961 36439 36619 42584 33518 27642 30037 29622 30391 28502 33024
## 2    31223 31889 27155 28235 36210 33848 28742 28261 29456 34235 27509 30933
## 3    16708 15110 13205 13399 14314 13127 10124  8994  7217  6811  7468 11227
## 4    13836 11707 12758 14004 18139 18400 19837 24887 28573 38617 36765 34315
## 5    11728  8046  6797  7533  7258  7140  8216  8979  8876  8724  6204  6195
## 6     9619  7342  7117  5352  5832  6215  5920  7294  5874  5537  4588  5316
## 7     6169  8129  5918  6348  5837  7480  6974  6475  6580  7477  7479  7534
## 8     5861  5279  4892  4495  4930  4714  4123  4756  4547  4422  3309  3338
## 9     5652  5765  5541  5755  5048  4468  3834  2837  2076  1922  1776  1588
## 10    5604  4948  5543  6990  8394  9613  9463 10190  8995  8142  7676  7891
## 11    4351  3941  3718  3989  3972  3117  2983  2690  2931  2288  1963  2079
## 12    4067  4174  3369  3686  2939  3322  4021  4226  5532  6242  4399  3878
```

```
## 13    4067  3697  3479  2978  3436  3009  2652  2111  1746  1758  2203  2635
## 14    3831  2944  2137  2660  4171  4014  2897  2939  2104  4721  2694  2640
## 15    3806  3463  3568  4391  4429  4002  4290  4532  5051  4646  4080  6280
## 16    3514  3520  2759  2431  2270  1973  2218  1937  2367  3159  2515  2265
## 17    3418  3406  3072  3616  3626  4807  3623  4005  5393  4752  4325  3774
## 18    2965  3283  4318  4566  6424  6535  5357  5452  4652  5218  4366  3741
## 19    2838  2524  2054  2237  1945  1722  2141  2334  2456  2321  2059  2182
## 20    2821  2432  1515  1796  2226  1788  2406  3543  5450  5941  6196  4041
## 21    2595  2039  2230  2393  2496  2190  2356  3347  3496  5982  4663  5555
## 22    2578  2332  3179  3293  3709  3802  3467  3566  3077  3432  3072  1614
## 23    2436  2539  2314  2788  2446  2625  2401  2562  2316  2755  1970  2134
## 24    2433  2174  1930  1652  1682  1619  1598  2491  2080  4744  6503  5868
## 25    2117  2291  1713  1816  1852  3153  2574  1784  2171  1942  1723  1731
## 26    1939  1894  1754  2259  2837  2844  3239  2856  3092  3865  3947  4227
## 27    1904  1499  1614  1733  1940  1827  1421  1581  1235  1831  1635  1206
## 28    1899  1498  1245  1175   988  1111  1200  1123  1188  1238   959  1243
## 29    1707  1479  1410  1341  1215  1286  1277  1137  1180   953   804   676
## 30    1602  1021   853  1450  1223   856   702   560   716   561   539   620
## 31    1601  1447  1394  1533  1405  1263  1235  1267  1013   795   720   779
## 32    1456  1375  1865  2020  2226  2767  2449  3833  3887  2956  2053  1702
## 33    1426  1403  1064  1518  2236  2594  2375  2109  3156  3906  3103  3443
## 34    1283  1517  1507  2022  1738  1419  1172   994   784   556   365   451
## 35    1248  1103  1233  1465  1521  1623  1466  1397  1581  1239  1224  1714
## 36    1184  1301  1338  1736  2065  1638  1463  1122  1238  1492  1257  1068
## 37    1155   730   957  1364  1198  1061  1166  1015  1214  1528  1535  1582
## 38    1105  1489  1862  1823  1310  1039   683   622   422   612   531   444
## 39    1092   806   817   973  1067  1212  1250  1284  1194  1168  1265  1214
## 40    1067   956  1085  1116  1458  1145  1056   919   917  1039  1005   650
## 41    1062   818  1399  1535  1506  1801  1512  1613  1289  1865  2163  1864
## 42     950   872   877   866   999  1064  1350  1300  1433   961   962  1304
## 43     907   709   515   552   632   613   657   661   504   712   390   395
## 44     904   928   707   730   857   794   975  1002  1134   915   588   586
## 45     849   855  1023  1460  1653  1473  1490  1094  1884  1283   886   787
## 46     847   745   839   917   969  1181  1746  2138  2509  2598  1508  1642
## 47     806   676   617   749   813   837   615   818   786   759   586   504
## 48     801   433   267   188   211   217   209   182   156   168   140   121
## 49     799   747   876   930   909   875  1033  1018  1018   933   851   982
## 50     788   661   669   764   756  1065   869   950  1195  1299  1442  1503
## 51     782   696   564   738   851   710   688   629   659   802   528   531
## 52     651   630   678   685   693   622   449   453   489   507   585   725
## 53     643   611   561   495   298   277   304   321   311   398   316   270
## 54     635   865  1745  1591  1153   847   620   540   467   459   278   263
## 55     627   537   489   671   516   520   425   383   312   354   287   300
## 56     585   615   501   597   369   241   215   125   128   135   134   136
## 57     560   524   699  1224  1211  1192  1335  1239  1353   998  1452  1373
## 58     531   364   329   336   338   424   405   665   623   629   528   560
## 59     513   612   592   628   655   803  1099  1127  1535  1988  1367  1416
## 60     501   418   542   545   506   408   436   394   431   377   381   462
## 61     473   588   391   311   392   298   690   734   366   805   219   146
## 62     460   480   419   401   593   580   600   658   640   802   409   358
## 63     453   473   446   442   436   430   929  1115   845   787   691   641
## 64     430   435   435   543   558   439   568   524   454   438   357   277
## 65     410   374   321   334   344   325   320   370   429   434   374   440
## 66     393   348   566   702   696   512   507   714   872  1455  1146   799
```

```
## 67    386   412   391   347   191   138    92   103    70    63    96    72
## 68    383   276   346   337   270   258   308   357   328   285   266   243
## 69    379   430   446   536   729   712   674   897   657   623   591   728
## 70    376   304   177   151   128   102   102   131    92    91   135   112
## 71    369   401   347   383   384   427   530   350   375   340   174   291
## 72    360   321   345   350   370   318   350   480   520   490   375   417
## 73    354   259   222   296   283   363   360   284   325   208   173   142
## 74    353   418   361   417   491   525   419   437   373   353   348   282
## 75    343   266   323   376   453   627   441   481   400   654   555   533
## 76    340   307   320   411   400   302   363   335   358   363   332   402
## 77    334   364   383   559   626   468   614   448   566   529   604   684
## 78    309   547   439   392   575   500   487   519   512   499   396   296
## 79    301   298   320   310   274   291   195   230   136   200   215   224
## 80    291   353   638   443   285   256   211   191   198   188   130   126
## 81    290   226   181   191   193   146   137   104   159   168   128   173
## 82    288   240   199   294   343   383   579   434   511   434   451   523
## 83    286   215   290   299   378   360   420   358   415   396   492   562
## 84    272   363   313   404   607   540   511   581   561  1392  1129  1185
## 85    269   242   179   217   190   230   258   263   264   266   288   358
## 86    264   202   234   270   303   295   311   438   391   479   739   604
## 87    259   230   277   348   370   529   460   354   203   200   196   233
## 88    228   210   153   196   196   281   198   306   282   384   352   299
## 89    221   176   262   414   528   700   699   799   904   931  1182  1335
## 90    206   222   301   436   604   697  1025  1279  1344  1800  1638  2507
## 91    190   178   192   244   224   283   300   412   395   547   525   725
## 92    184   149   161   129   205   139   193   165   167   159   134   140
## 93    183   125   194   220   167   113   108   109    63    57    52    77
## 94    181   171   113   124   161   140   122   133   128   211   160   174
## 95    180   143   105   133   166   164   165   187   169   386   538   436
## 96    177   205   196   281   256   342   415   327   347   395   352   407
## 97    175   156   110    94    77    69    88    67    85    70   103   202
## 98    169   168   165   268   295   184   106    76    62    61    39    70
## 99    148   122    74    90   111    97   130   134   125   121    97   132
## 100   143   184   119   256   294   431   619   646   668  1066   636  1024
## 101   135   107   117   120   100    74   110   107   119   101   102   146
## 102   134   106   105   165   188   279   281   246   217   190   149   183
## 103   134    87   113   118   122   102    98    91   109   124    84   102
## 104   129   165   171   210   278   416   433   555   668   765   740   949
## 105   124   123   127   106   114   125   132   112   128   126   139   147
## 106   116    82    89   110   185   190   255   298   257   249   261   382
## 107   113   164   263   191   210   953  1887   975  1153   556   368   193
## 108   110   191   669  1450   615   454   663   611   508   494   434   437
## 109   108    69    88    67    79    96    76   124   116    94   123   106
## 110   107    74    72    74    66    35    62    53    68    67    58    73
## 111   106    84   112   142   136   143    87    72    70    75    81    91
## 112   102   144   155   175   330   262   284   215   288   289   162   235
## 113    98   186   167   230   359   236   203   125   165   209   138   161
## 114    98    71    70   128   198   252   188   249   246   330   278   286
## 115    96    62    43    67    93    68    50    47    70   123   127   164
## 116    95   124    99   245   173   161   135   168   173   157   159   278
## 117    94   105   106   163   157   149   235   351   400   354   261   299
## 118    94    90   117   160   239   201   170   204   185   216   213   222
## 119    90    76    64    92   126    96   131    95    87    98    79    97
## 120    87   132   153   147   224   218   198   205   267   252   236   258
```

```
## 121    82    62    65    50    59    72    79    60    59    43    36    43
## 122    81    70    89    89    62   101    97   108    81    92    93    94
## 123    79    87    89   133   126   124   137   169   195   174   179   262
## 124    78    74    77    73    57    53    73    66    75    46    49    53
## 125    78    50    46    56    91    77    71    64    60   102    69    46
## 126    72    57    59    85   134   139   107   143   214   180    86    83
## 127    67    62    72    87    87   114   143   154   164   170   155   191
## 128    66    71    78   112    95   116   183   205   238   290   284   391
## 129    64    91   103   130   217   175   147   160    99    93    81    47
## 130    60    57   139   409   581   356   153    74    94   162   106    58
## 131    57    59    48    79    88    96   115   118   169   178   148   165
## 132    53    59    65    54    67    51    62    89    63    63    72    62
## 133    50    48    54    38    57    73    63    52    73    65    49    34
## 134    46    37    34    97    91   147   136   139   162   186   144   269
## 135    41    37    32    41    31    42    37    33    37    86    60    54
## 136    40    49    22    38    42    74    53    32    39    54    22    25
## 137    34    60    88    74    75    88    98    95    88    89    83    55
## 138    30    38    56    27    26    18    34    34    26    28    15    26
## 139    30    27    23    60    86   124    96   112    83    74    54    77
## 140    26    24    42    33    67    68   101    86    86    64    63    74
## 141    26    11    17    23    10     2    15    13    15    30    38    42
## 142    25    17    25    14    24    32    15    32    38    27    37    51
## 143    24    35    16    25    37    24    28    48    38    39    36    34
## 144    24    16    28    28    28    24     7    21    18    17     8     9
## 145    23    30    30    38    59    57    75    75    82    80    90    95
## 146    22    22    22    17    15    16    20     9    12    13    11    16
## 147    22    16    18    17    23    11    29    18    27    12    13    36
## 148    22    13    17    11     7     9     4     7     6    18     6    12
## 149    22    10    10    10    29    38    32    25    10    37    24    18
## 150    21     4     4     5    11     2     5     9     6    18     3    14
## 151    20    17    14    13    14    18    23    30    27    25    40    60
## 152    20     9     7    14    85    46    44    15    50    52    47    34
## 153    17    20    28    34    59    64    82    59   118   169   103    68
## 154    15    28    21    21    21    32    16    12    21    21    13    33
## 155    14     2    11     6     5     7    11     3    19    22    14    18
## 156    13    17    15    12    12    12    22     9    35    28    21    39
## 157    12     7    11    12    14    18    16    10     7    14    10    13
## 158    11     8    12     8    11     3    10    25    11    22    12    21
## 159    10    11    22    16    40    26    37    13    20    30    20    20
## 160     9    10     7     9     6    19    13    26    14    16    23    24
## 161     9     4    13    15    25     8     9    18     4    10    10     6
## 162     8    11    18    15    14    10     7    19    11    45    97    66
## 163     6    20    10    13    49    18    30    28    19    26    18    45
## 164     6     8     7     1     5    10     7    36   865  1464  1879  1075
## 165     6     2     5     5     2     0     1     0     5     5     2     3
## 166     5    17     9     9    10     9     9     3     5     8    11     6
## 167     5     7     3    17    23    15    13     5    10    28    16     9
## 168     5     2    13     3     5     7     2     5     1     3     3     6
## 169     3     4     6     3     4     5    11    10     5    12     6     3
## 170     3     2     6     4     7    12     7     2     0     2     2     4
## 171     3     2     4     1     1     1     0     0     1     0     0     0
## 172     2     5     3     8     5     9     5     5    12     7     3     4
## 173     2     4     4     9     7    11     8    28    15    42    53    64
## 174     2     2     3     3     2     0     1     4     2     5     3     2
```

```
## 175       2       1        0       8       7       7       5       6      10       3      13      17
## 176       2       0        1       0       1       0       0       1       1       0       2       1
## 177       2       0        4       1       1       0       0       9       1       3       0       3
## 178       1       2        2       2       3       4       5       1       5       4       4       4
## 179       1       1        1       1       1       1       1       0       0       4       1       3
## 180       1       0        2       0       0       1       1       0       0       0       0       1
## 181       1       0        0       0       1       0       0       1       1       0       0       2
## 182       1       0        1       0       0       0       0       1       0       0       0       0
## 183       1       0        1       1       1       1       0       0       1       0       0       0
## 184       0       2        2       2       4       0       4       1       8       7       1       0
## 185       0       1        0       1       0       0       2       1       7       4       3       1
## 186       0       0        0       0       0       1       0       0       0       0       0       0
## 187       0       0        0       0       0       0       0       0       0       0       1       1
## 188       0       0        0       0       0       0       2       0       0       0       0       0
## 189       0       0        1       0       0       0       7      19      10      14      19      26
## 190       0       0        0       0       0       0       1       0       0       0       0       0
## 191       0       0        1       0       0       0       0       0       0       1       0       0
## 192       0       0        0       1       1       1       0       0       1       2       0       0
## 193       0       0        0       0       0       3      50     259     365     271     299     395
## 194       0       0        0       2       0       0       1       0       0       0       1       0
## 195       0       0        0       0       0       1       0       0       0       0       0       0
##      X2013   Total
## 1    34129 659962
## 2    33087 691904
## 3    12603 241600
## 4    29544 511391
## 5     5827 551500
## 6     4509 142581
## 7    11291 175923
## 8     2394 148358
## 9     1512  93585
## 10    8501 241122
## 11    2466  63344
## 12    3261  72267
## 13    2004  58639
## 14    3789  65568
## 15    5623 109091
## 16    2487  51410
## 17    4331  69439
## 18    3631  72088
## 19    2479 106431
## 20    4918  69789
## 21    4165  72745
## 22    2172 115359
## 23    1945  66508
## 24    4152  84813
## 25    2112  97146
## 26    3996  58712
## 27    1255  35406
## 28    1240  40568
## 29     656  75785
## 30     603  15699
## 31     852 139241
## 32    1217  63912
```

```
## 33   4172   39732
## 34    512   23310
## 35   2050   25582
## 36    729   31781
## 37   2028   42109
## 38    343   18506
## 39    982   27707
## 40   1009   31485
## 41   1606   35136
## 42   1402   20365
## 43    387   13150
## 44    427   50016
## 45    682   32652
## 46   1714   29659
## 47    395   26884
## 48    119   21855
## 49   1121   23829
## 50   1627   17583
## 51    517   26032
## 52    664   17228
## 53    228   20609
## 54    282   19596
## 55    425   16822
## 56    105    5963
## 57   1022   21267
## 58    630   74167
## 59   1231   15381
## 60    348    8490
## 61    141   14579
## 62    204   24417
## 63    639   54878
## 64    247    7975
## 65    545   22624
## 66   1203   15690
## 67     63    3351
## 68    201   15678
## 69    774    9327
## 70    125    8001
## 71    273   21359
## 72    415   10386
## 73    170    9091
## 74    418   12233
## 75    462    6512
## 76    379   10762
## 77    480    8110
## 78    400    9174
## 79    182   12496
## 80    112    4637
## 81    174    4192
## 82    538    9707
## 83    415    6691
## 84   1308   10222
## 85    345   19465
## 86    590   11193
```

```
## 87    288   6538
## 88    255   4909
## 89   1719  10450
## 90   2439  16021
## 91   1015  16964
## 92    140   5866
## 93    145   2414
## 94    217   2985
## 95    350   7770
## 96    463   4891
## 97    213   2326
## 98     45   2113
## 99     97   6923
## 100  1170   8291
## 101   298  12410
## 102   122   4489
## 103    90   4985
## 104   818   7362
## 105   125   2068
## 106   392   4802
## 107   262   9245
## 108   407   8598
## 109    96  12095
## 110    48   2025
## 111   114   1686
## 112   167   3368
## 113    57   2649
## 114   267   3425
## 115   201   1646
## 116   123   2353
## 117   316   3545
## 118   206   3450
## 119    86   1653
## 120   207   3310
## 121    48   2470
## 122    81   3901
## 123   331   5018
## 124    59   2327
## 125    59   1677
## 126   107   3205
## 127   190   2188
## 128   397   2852
## 129    58   4715
## 130    39   2759
## 131   229   2194
## 132    76   2781
## 133    43   3161
## 134   322   2043
## 135    46    836
## 136    15   1089
## 137    66   1944
## 138    45    935
## 139    57   1016
## 140    90    952
```

```
## 141    72    570
## 142    25    981
## 143    53   1083
## 144     4   1546
## 145   105    952
## 146     4    739
## 147    20    523
## 148    16   1126
## 149    33    603
## 150     6    157
## 151    55    808
## 152    39    503
## 153    99    952
## 154    29    284
## 155    22    194
## 156    32    475
## 157    11    224
## 158    18    653
## 159    14    310
## 160    83    320
## 161     5   1266
## 162    17    388
## 163   169    550
## 164   487   5876
## 165     5    142
## 166     7    215
## 167    10    294
## 168     2    201
## 169     6    600
## 170     0     83
## 171     1     18
## 172    12    160
## 173    76    396
## 174     0     78
## 175    39    188
## 176     0     40
## 177     3     64
## 178    11     61
## 179     1     29
## 180     1     15
## 181     0     15
## 182     2      5
## 183     0     11
## 184     6    107
## 185     1     30
## 186     0      6
## 187     2     20
## 188     0      2
## 189     9    105
## 190     0      1
## 191     0      5
## 192     1     10
## 193   297   1939
## 194     0      8
```

```
## 195       0       2
```

\#Rename Coloumns

```
names(Dataset)[2]= "Continent1"
```

\#Add new variables in your data frame by using a mathematical function

```
Dataset%>%mutate(newTotal=Total*2)
```

```
##                                                    Country
## 1                                              Afghanistan
## 2                                                  Albania
## 3                                                  Algeria
## 4                                           American Samoa
## 5                                                  Andorra
## 6                                                   Angola
## 7                                      Antigua and Barbuda
## 8                                                Argentina
## 9                                                  Armenia
## 10                                               Australia
## 11                                                 Austria
## 12                                              Azerbaijan
## 13                                                 Bahamas
## 14                                                 Bahrain
## 15                                              Bangladesh
## 16                                                Barbados
## 17                                                 Belarus
## 18                                                 Belgium
## 19                                                  Belize
## 20                                                   Benin
## 21                                                  Bhutan
## 22                          Bolivia (Plurinational State of)
## 23                                  Bosnia and Herzegovina
## 24                                                Botswana
## 25                                                  Brazil
## 26                                        Brunei Darussalam
## 27                                                Bulgaria
## 28                                            Burkina Faso
## 29                                                 Burundi
## 30                                              Cabo Verde
## 31                                                Cambodia
## 32                                                Cameroon
## 33                                                  Canada
## 34                                Central African Republic
## 35                                                    Chad
## 36                                                   Chile
## 37                                                   China
## 38       China, Hong Kong Special Administrative Region
## 39            China, Macao Special Administrative Region
## 40                                                Colombia
## 41                                                 Comoros
## 42                                                   Congo
## 43                                              Costa Rica
## 44                                           CÃ´te d'Ivoire
## 45                                                 Croatia
```

```
## 46                                              Cuba
## 47                                            Cyprus
## 48                                    Czech Republic
## 49         Democratic People's Republic of Korea
## 50          Democratic Republic of the Congo
## 51                                           Denmark
## 52                                          Djibouti
## 53                                          Dominica
## 54                                Dominican Republic
## 55                                           Ecuador
## 56                                             Egypt
## 57                                       El Salvador
## 58                                 Equatorial Guinea
## 59                                           Eritrea
## 60                                           Estonia
## 61                                          Ethiopia
## 62                                              Fiji
## 63                                           Finland
## 64                                            France
## 65                                             Gabon
## 66                                            Gambia
## 67                                           Georgia
## 68                                           Germany
## 69                                             Ghana
## 70                                            Greece
## 71                                           Grenada
## 72                                         Guatemala
## 73                                            Guinea
## 74                                     Guinea-Bissau
## 75                                            Guyana
## 76                                             Haiti
## 77                                          Honduras
## 78                                           Hungary
## 79                                           Iceland
## 80                                             India
## 81                                         Indonesia
## 82                          Iran (Islamic Republic of)
## 83                                              Iraq
## 84                                           Ireland
## 85                                            Israel
## 86                                             Italy
## 87                                           Jamaica
## 88                                             Japan
## 89                                            Jordan
## 90                                        Kazakhstan
## 91                                             Kenya
## 92                                          Kiribati
## 93                                            Kuwait
## 94                                        Kyrgyzstan
## 95                 Lao People's Democratic Republic
## 96                                            Latvia
## 97                                           Lebanon
## 98                                           Lesotho
## 99                                           Liberia
```

```
## 100                                  Libya
## 101                            Liechtenstein
## 102                                Lithuania
## 103                               Luxembourg
## 104                               Madagascar
## 105                                   Malawi
## 106                                 Malaysia
## 107                                 Maldives
## 108                                     Mali
## 109                                    Malta
## 110                          Marshall Islands
## 111                               Mauritania
## 112                                Mauritius
## 113                                   Mexico
## 114                                   Monaco
## 115                                 Mongolia
## 116                               Montenegro
## 117                                  Morocco
## 118                               Mozambique
## 119                                  Myanmar
## 120                                  Namibia
## 121                                    Nauru
## 122                                    Nepal
## 123                              Netherlands
## 124                            New Caledonia
## 125                              New Zealand
## 126                                Nicaragua
## 127                                    Niger
## 128                                  Nigeria
## 129                                   Norway
## 130                                     Oman
## 131                                 Pakistan
## 132                                    Palau
## 133                                   Panama
## 134                         Papua New Guinea
## 135                                 Paraguay
## 136                                     Peru
## 137                              Philippines
## 138                                   Poland
## 139                                 Portugal
## 140                                    Qatar
## 141                        Republic of Korea
## 142                      Republic of Moldova
## 143                                  Romania
## 144                       Russian Federation
## 145                                   Rwanda
## 146                    Saint Kitts and Nevis
## 147                              Saint Lucia
## 148        Saint Vincent and the Grenadines
## 149                                    Samoa
## 150                               San Marino
## 151                   Sao Tome and Principe
## 152                             Saudi Arabia
## 153                                  Senegal
```

```
## 154                                              Serbia
## 155                                           Seychelles
## 156                                        Sierra Leone
## 157                                           Singapore
## 158                                            Slovakia
## 159                                            Slovenia
## 160                                             Somalia
## 161                                       South Africa
## 162                                               Spain
## 163                                          Sri Lanka
## 164                                  State of Palestine
## 165                                               Sudan
## 166                                            Suriname
## 167                                           Swaziland
## 168                                              Sweden
## 169                                        Switzerland
## 170                              Syrian Arab Republic
## 171                                         Tajikistan
## 172                                           Thailand
## 173     The former Yugoslav Republic of Macedonia
## 174                                               Togo
## 175                                              Tonga
## 176                              Trinidad and Tobago
## 177                                            Tunisia
## 178                                             Turkey
## 179                                      Turkmenistan
## 180                                             Tuvalu
## 181                                             Uganda
## 182                                            Ukraine
## 183                              United Arab Emirates
## 184 United Kingdom of Great Britain and Northern Ireland
## 185                      United Republic of Tanzania
## 186                         United States of America
## 187                                            Uruguay
## 188                                        Uzbekistan
## 189                                            Vanuatu
## 190                  Venezuela (Bolivarian Republic of)
## 191                                           Viet Nam
## 192                                    Western Sahara
## 193                                              Yemen
## 194                                             Zambia
## 195                                           Zimbabwe
##                             Continent1                     Region
## 1                                 Asia             Southern Asia
## 2                               Europe           Southern Europe
## 3                               Africa           Northern Africa
## 4                              Oceania                 Polynesia
## 5                               Europe           Southern Europe
## 6                               Africa             Middle Africa
## 7       Latin America and the Caribbean                 Caribbean
## 8       Latin America and the Caribbean             South America
## 9                                 Asia               Western Asia
## 10                             Oceania Australia and New Zealand
## 11                              Europe             Western Europe
```

```
## 12                             Asia           Western Asia
## 13  Latin America and the Caribbean              Caribbean
## 14                             Asia           Western Asia
## 15                             Asia          Southern Asia
## 16  Latin America and the Caribbean              Caribbean
## 17                           Europe         Eastern Europe
## 18                           Europe         Western Europe
## 19  Latin America and the Caribbean        Central America
## 20                           Africa         Western Africa
## 21                             Asia          Southern Asia
## 22  Latin America and the Caribbean          South America
## 23                           Europe        Southern Europe
## 24                           Africa        Southern Africa
## 25  Latin America and the Caribbean          South America
## 26                             Asia     South-Eastern Asia
## 27                           Europe         Eastern Europe
## 28                           Africa         Western Africa
## 29                           Africa         Eastern Africa
## 30                           Africa         Western Africa
## 31                             Asia     South-Eastern Asia
## 32                           Africa          Middle Africa
## 33                  Northern America       Northern America
## 34                           Africa          Middle Africa
## 35                           Africa          Middle Africa
## 36  Latin America and the Caribbean          South America
## 37                             Asia           Eastern Asia
## 38                             Asia           Eastern Asia
## 39                             Asia           Eastern Asia
## 40  Latin America and the Caribbean          South America
## 41                           Africa         Eastern Africa
## 42                           Africa          Middle Africa
## 43  Latin America and the Caribbean        Central America
## 44                           Africa         Western Africa
## 45                           Europe        Southern Europe
## 46  Latin America and the Caribbean              Caribbean
## 47                             Asia           Western Asia
## 48                           Europe         Eastern Europe
## 49                             Asia           Eastern Asia
## 50                           Africa          Middle Africa
## 51                           Europe        Northern Europe
## 52                           Africa         Eastern Africa
## 53  Latin America and the Caribbean              Caribbean
## 54  Latin America and the Caribbean              Caribbean
## 55  Latin America and the Caribbean          South America
## 56                           Africa        Northern Africa
## 57  Latin America and the Caribbean        Central America
## 58                           Africa          Middle Africa
## 59                           Africa         Eastern Africa
## 60                           Europe        Northern Europe
## 61                           Africa         Eastern Africa
## 62                          Oceania              Melanesia
## 63                           Europe        Northern Europe
## 64                           Europe         Western Europe
## 65                           Africa          Middle Africa
```

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## 66                                  Africa           Western Africa
## 67                                    Asia            Western Asia
## 68                                  Europe          Western Europe
## 69                                  Africa           Western Africa
## 70                                  Europe         Southern Europe
## 71  Latin America and the Caribbean                      Caribbean
## 72  Latin America and the Caribbean                Central America
## 73                                  Africa           Western Africa
## 74                                  Africa           Western Africa
## 75  Latin America and the Caribbean                  South America
## 76  Latin America and the Caribbean                      Caribbean
## 77  Latin America and the Caribbean                Central America
## 78                                  Europe          Eastern Europe
## 79                                  Europe         Northern Europe
## 80                                    Asia           Southern Asia
## 81                                    Asia      South-Eastern Asia
## 82                                    Asia           Southern Asia
## 83                                    Asia            Western Asia
## 84                                  Europe         Northern Europe
## 85                                    Asia            Western Asia
## 86                                  Europe         Southern Europe
## 87  Latin America and the Caribbean                      Caribbean
## 88                                    Asia            Eastern Asia
## 89                                    Asia            Western Asia
## 90                                    Asia            Central Asia
## 91                                  Africa           Eastern Africa
## 92                                 Oceania              Micronesia
## 93                                    Asia            Western Asia
## 94                                    Asia            Central Asia
## 95                                    Asia      South-Eastern Asia
## 96                                  Europe         Northern Europe
## 97                                    Asia            Western Asia
## 98                                  Africa          Southern Africa
## 99                                  Africa           Western Africa
## 100                                 Africa          Northern Africa
## 101                                 Europe          Western Europe
## 102                                 Europe         Northern Europe
## 103                                 Europe          Western Europe
## 104                                 Africa           Eastern Africa
## 105                                 Africa           Eastern Africa
## 106                                   Asia      South-Eastern Asia
## 107                                   Asia           Southern Asia
## 108                                 Africa           Western Africa
## 109                                 Europe         Southern Europe
## 110                                Oceania              Micronesia
## 111                                 Africa           Western Africa
## 112                                 Africa           Eastern Africa
## 113 Latin America and the Caribbean                Central America
## 114                                 Europe          Western Europe
## 115                                   Asia            Eastern Asia
## 116                                 Europe         Southern Europe
## 117                                 Africa          Northern Africa
## 118                                 Africa           Eastern Africa
## 119                                   Asia      South-Eastern Asia
```

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## 120                               Africa           Southern Africa
## 121                              Oceania              Micronesia
## 122                                 Asia            Southern Asia
## 123                               Europe           Western Europe
## 124                              Oceania               Melanesia
## 125                              Oceania Australia and New Zealand
## 126 Latin America and the Caribbean          Central America
## 127                               Africa            Western Africa
## 128                               Africa            Western Africa
## 129                               Europe           Northern Europe
## 130                                 Asia             Western Asia
## 131                                 Asia            Southern Asia
## 132                              Oceania              Micronesia
## 133 Latin America and the Caribbean          Central America
## 134                              Oceania               Melanesia
## 135 Latin America and the Caribbean            South America
## 136 Latin America and the Caribbean            South America
## 137                                 Asia        South-Eastern Asia
## 138                               Europe           Eastern Europe
## 139                               Europe          Southern Europe
## 140                                 Asia             Western Asia
## 141                                 Asia             Eastern Asia
## 142                               Europe           Eastern Europe
## 143                               Europe           Eastern Europe
## 144                               Europe           Eastern Europe
## 145                               Africa            Eastern Africa
## 146 Latin America and the Caribbean                Caribbean
## 147 Latin America and the Caribbean                Caribbean
## 148 Latin America and the Caribbean                Caribbean
## 149                              Oceania               Polynesia
## 150                               Europe          Southern Europe
## 151                               Africa             Middle Africa
## 152                                 Asia             Western Asia
## 153                               Africa            Western Africa
## 154                               Europe          Southern Europe
## 155                               Africa            Eastern Africa
## 156                               Africa            Western Africa
## 157                                 Asia        South-Eastern Asia
## 158                               Europe           Eastern Europe
## 159                               Europe          Southern Europe
## 160                               Africa            Eastern Africa
## 161                               Africa           Southern Africa
## 162                               Europe          Southern Europe
## 163                                 Asia            Southern Asia
## 164                                 Asia             Western Asia
## 165                               Africa           Northern Africa
## 166 Latin America and the Caribbean            South America
## 167                               Africa           Southern Africa
## 168                               Europe           Northern Europe
## 169                               Europe           Western Europe
## 170                                 Asia             Western Asia
## 171                                 Asia             Central Asia
## 172                                 Asia        South-Eastern Asia
## 173                               Europe          Southern Europe
```

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## 174                              Africa        Western Africa
## 175                             Oceania            Polynesia
## 176 Latin America and the Caribbean              Caribbean
## 177                              Africa       Northern Africa
## 178                                Asia          Western Asia
## 179                                Asia          Central Asia
## 180                             Oceania            Polynesia
## 181                              Africa        Eastern Africa
## 182                              Europe        Eastern Europe
## 183                                Asia          Western Asia
## 184                              Europe       Northern Europe
## 185                              Africa        Eastern Africa
## 186                     Northern America      Northern America
## 187 Latin America and the Caribbean          South America
## 188                                Asia          Central Asia
## 189                             Oceania             Melanesia
## 190 Latin America and the Caribbean          South America
## 191                                Asia     South-Eastern Asia
## 192                              Africa       Northern Africa
## 193                                Asia          Western Asia
## 194                              Africa        Eastern Africa
## 195                              Africa        Eastern Africa
##                    DevName X1980 X1981 X1982 X1983 X1984 X1985 X1986 X1987 X1988
## 1    Developing regions      16    39    39    47    71   340   496   741   828
## 2     Developed regions       1     0     0     0     0     0     1     2     2
## 3    Developing regions      80    67    71    69    63    44    69   132   242
## 4    Developing regions       0     1     0     0     0     0     0     1     0
## 5     Developed regions       0     0     0     0     0     0     2     0     0
## 6    Developing regions       1     3     6     6     4     3     5     5    11
## 7    Developing regions       0     0     0     0    42    52    51    61    34
## 8    Developing regions     368   426   626   241   237   196   213   519   374
## 9    Developing regions       0     0     0     0     0     0     0     0     0
## 10    Developed regions     702   639   484   317   317   319   356   467   410
## 11    Developed regions     234   238   201   117   127   165   196   265   198
## 12   Developing regions       0     0     0     0     0     0     0     0     0
## 13   Developing regions      26    23    38    12    21    28    23    18    22
## 14   Developing regions       0     2     1     1     1     3     0     2    10
## 15   Developing regions      83    84    86    81    98    92   486   503   476
## 16   Developing regions     372   376   299   244   265   285   251   303   265
## 17    Developed regions       0     0     0     0     0     0     0     0     0
## 18    Developed regions     511   540   519   297   183   181   197   283   333
## 19   Developing regions      16    27    13    21    37    26    25    23    53
## 20   Developing regions       2     5     4     3     4     3     6     4    20
## 21   Developing regions       0     0     0     0     1     0     0     0     0
## 22   Developing regions      44    52    42    49    38    44    79   165    63
## 23    Developed regions       0     0     0     0     0     0     0     0     0
## 24   Developing regions      10     1     3     3     7     4     2     3     8
## 25   Developing regions     211   220   192   139   145   130   205   244   394
## 26   Developing regions      79     6     8     2     2     4    12    16   103
## 27    Developed regions      24    20    12    33    11    24    33    52    43
## 28   Developing regions       2     1     3     2     3     2     7    18     6
## 29   Developing regions       0     0     0     0     1     2     1     5     1
## 30   Developing regions       1     1     2     0    11     1     9     3     1
## 31   Developing regions      12    19    26    33    10     7     8    14    15
```

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## 32  Developing regions     9     2    16     7     8    13    11    18    20
## 33   Developed regions     0     0     0     0     0     0     0     0     0
## 34  Developing regions     4     3     1     0     0     0     0     2     3
## 35  Developing regions     0     0     1     0     0     1     2     3     7
## 36  Developing regions  1233  1069  1078   781   681   533   633  1454   990
## 37  Developing regions  5123  6682  3308  1863  1527  1816  1960  2643  2758
## 38  Developing regions     0     0     0     0     0     0     0     0     0
## 39  Developing regions     0     0     0     0     0     0     0     0     0
## 40  Developing regions   266   326   360   244   235   214   257   376   352
## 41  Developing regions     0     2     2     0     0     2     1     0     2
## 42  Developing regions     2     0     1     0     1     2     4     1     1
## 43  Developing regions    28    35    42    51    75   113    79   116   104
## 44  Developing regions    14     8    10     6    21    23    23    20    17
## 45   Developed regions     0     0     0     0     0     0     0     0     0
## 46  Developing regions   306    41    94   104   101   115   102   139    90
## 47  Developing regions   132   128    84    46    46    43    48    48    56
## 48   Developed regions     0     0     0     0     0     0     0     0     0
## 49  Developing regions     1     1     3     1     4     3     0     0     0
## 50  Developing regions    15    16    17    17    28    11    38    66    46
## 51   Developed regions   272   293   299   106    93    73    93   109   129
## 52  Developing regions     0     1     1     5     1     0     4     2     4
## 53  Developing regions   104    81    94    65    81    79    50    89    75
## 54  Developing regions    40    53   104    88    97    84   307   446   358
## 55  Developing regions   238   207   184   155   179   208   240   344   265
## 56  Developing regions   612   660   755   455   447   348   514  1017  1085
## 57  Developing regions   110   295   882  2587  2666  2769  3106  3558  2720
## 58  Developing regions     0     0     0     0     0     0     1     0     0
## 59  Developing regions     0     0     0     0     0     0     0     0     0
## 60   Developed regions     0     0     0     0     0     0     0     0     0
## 61  Developing regions    98    59    54    98   154   157   302   555   690
## 62  Developing regions   632   705   814   554   389   446   361   523   561
## 63   Developed regions   208   205   170    70    83    69    68    92    89
## 64   Developed regions  1729  2027  2219  1490  1169  1177  1298  1658  2038
## 65  Developing regions     2     3     2     2     1     0     0     5     3
## 66  Developing regions     0     0     1     0     0     2     4    22     3
## 67  Developing regions     0     0     0     0     0     0     0     0     0
## 68   Developed regions  1626  1977  3062  2376  1610  1441  1233  1704  1482
## 69  Developing regions   172   196    98   122   116   172   215   970   408
## 70   Developed regions  1065   953   897   633   580   584   547   765   564
## 71  Developing regions   154   181   231   165   167   168   235   302   165
## 72  Developing regions   114   108   113   366   598   975  1265  1060   702
## 73  Developing regions     0     3     3     6     4     3     5    14    12
## 74  Developing regions     0     0     0     0     1     0     0     0     3
## 75  Developing regions  2334  2943  3575  2650  1932  2299  3942  6174  2977
## 76  Developing regions  1666  3692  3498  2860  1418  1321  1753  2132  1829
## 77  Developing regions    26    33    30    68    65    69    81   135   111
## 78   Developed regions   205   310   397   337   310   522   647   676  1139
## 79   Developed regions    17    33    10     9    13     6    11    11     7
## 80  Developing regions  8880  8670  8147  7338  5704  4211  7150 10189 11522
## 81  Developing regions   186   178   252   115   123   100   127   213   270
## 82  Developing regions  1172  1429  1822  1592  1977  1648  1794  2989  3273
## 83  Developing regions   262   245   260   380   428   231   265   384   619
## 84   Developed regions   781   895   707   298   327   287   481  1078  1415
## 85  Developing regions  1403  1711  1334   541   446   680  1212  1497  1389
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## 86    Developed regions  1820  2057  1480   820   858   667   731  1101   885
## 87   Developing regions  3198  2634  2661  2455  2508  2938  4649  5415  3924
## 88    Developed regions   701   756   598   309   246   198   248   422   324
## 89   Developing regions   177   160   155   113   102   179   181   392   489
## 90   Developing regions     0     0     0     0     0     0     0     0     0
## 91   Developing regions   291   296   221   201   218   245   244   628   984
## 92   Developing regions     0     0     0     1     0     0     0     0     0
## 93   Developing regions     1     0     8     2     1     4     4     9    19
## 94   Developing regions     0     0     0     0     0     0     0     0     0
## 95   Developing regions    11     6    16    16     7    17    21    20    22
## 96    Developed regions     0     0     0     0     0     0     1     0     0
## 97   Developing regions  1409  1119  1159   789  1253  1683  2576  3803  3970
## 98   Developing regions     1     1     1     2     7     5     3     1     6
## 99   Developing regions     1     2     2     1     4     4     3     4     3
## 100  Developing regions     5     7     9    24    10    31    23    81    43
## 101   Developed regions     1     4     2     0     0     3     0     1     1
## 102   Developed regions     1     1     0     0     0     1     0     0     1
## 103   Developed regions    14     4     2     5     1     3     6     2     4
## 104  Developing regions    22    10    13    32    30    18    10    42    36
## 105  Developing regions     5     4     6     3     2     0     4     7     1
## 106  Developing regions   786   816   813   448   384   374   425   817  2072
## 107  Developing regions     0     0     0     1     0     0     0     0     0
## 108  Developing regions     4     4     7     3     3     4     3     5     4
## 109   Developed regions   191   242   153    64    60    68    76    78   111
## 110  Developing regions     0     0     0     0     0     0     0     0     0
## 111  Developing regions     5     0     3     3     1     1     1     4     3
## 112  Developing regions   306   259   353   170   207   164   325   578   531
## 113  Developing regions   409   394   491   490   509   425   667   813   916
## 114   Developed regions     0     0     0     0     0     1     0     1     0
## 115  Developing regions     0     0     0     0     0     0     0     0     0
## 116   Developed regions     0     0     0     0     0     0     0     0     0
## 117  Developing regions   325   471   447   335   248   328   388   505   685
## 118  Developing regions     0     0     7     2     3     1     3     1     5
## 119  Developing regions    80    62    46    31    41    23    18    33    55
## 120  Developing regions     0     5     5     3     2     1     1     4     3
## 121  Developing regions     1     0     0     0     0     0     0     0     1
## 122  Developing regions     1     1     6     1     2     4    13     6    13
## 123   Developed regions  1889  1858  1852   716   560   510   539   647   832
## 124  Developing regions     0     0     0     0     0     0     0     0     0
## 125   Developed regions   602   480   364   140   164   148   176   208   200
## 126  Developing regions    18    21    27    55   126   468   670  1073   969
## 127  Developing regions     0     0     1     1     0     0     0     4     0
## 128  Developing regions    81    60    58    58    78    78   114   149   122
## 129   Developed regions   116    77   106    51    31    54    56    80    73
## 130  Developing regions     0     0     0     8     0     0     0     3     0
## 131  Developing regions   978   972  1201   900   668   514   691  1072  1334
## 132  Developing regions     0     0     0     0     0     0     0     0     0
## 133  Developing regions    13     8    14    10    11    17    16    26    21
## 134  Developing regions     0     2     2     4     2     2     1     1     3
## 135  Developing regions    45    26    32    40    48    36    34    72    53
## 136  Developing regions   317   456   401   241   306   328   628   843  1237
## 137  Developing regions  6051  5921  5249  4562  3801  3150  4166  7360  8639
## 138   Developed regions   863  2930  5881  4546  3588  2819  4808  6931  9211
## 139   Developed regions  4473  3486  2432  1433  1398  1451  2617  7684  6888
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## 140 Developing regions       0     0     0     0     0     0     1     0     1
## 141 Developing regions    1011  1456  1572  1081   847   962  1208  2338  2805
## 142  Developed regions       0     0     0     0     0     0     0     0     0
## 143  Developed regions     375   438   583   543   524   604   656  1202  1106
## 144  Developed regions       0     0     0     0     0     0     0     0     0
## 145 Developing regions       6     6     8     4     3     0     9     3    12
## 146 Developing regions       5     3     0    16    21    17    36    43    39
## 147 Developing regions      69    89   133    69    68    80    95    92    77
## 148 Developing regions     147   190   202   154   158   182   209   216   133
## 149 Developing regions       3     7     4     1     3     0     3     0     1
## 150  Developed regions       1     0     0     0     0     0     1     0     0
## 151 Developing regions       0     0     0     0     0     0     0     0     0
## 152 Developing regions       0     0     1     4     1     2     5     7    29
## 153 Developing regions      13    10     9    11     7    11    16    19    17
## 154  Developed regions       0     0     0     0     0     0     0     0     0
## 155 Developing regions       5    15     3     4     1     8    13    24    19
## 156 Developing regions       6     6     7     3    12    10    13    57    26
## 157 Developing regions     241   301   337   169   128   139   205   372   808
## 158  Developed regions       0     0     0     0     0     0     0     0     0
## 159  Developed regions       0     0     0     0     0     0     0     0     0
## 160 Developing regions       7    10     7    12    14    10    37   190   217
## 161 Developing regions    1026  1118   781   379   271   310   718  1470  1305
## 162  Developed regions     211   299   260   133   137    98   121   176   137
## 163 Developing regions     185   371   290   197  1086   845  1838  4447  2779
## 164 Developing regions       0     0     0     0     0     0     0     0     0
## 165 Developing regions      20    12    11     7    23    32    57    43    54
## 166 Developing regions      15    10    21    12     5    16     7    46    16
## 167 Developing regions       4     1     1     0    10     7     1     2     7
## 168  Developed regions     281   308   222   176   128   158   187   198   171
## 169  Developed regions     806   811   634   370   326   314   294   565   508
## 170 Developing regions     315   419   409   269   264   385   493   927   864
## 171 Developing regions       0     0     0     0     0     0     0     0     0
## 172 Developing regions      56    53   113    65    82    66    78   117   147
## 173  Developed regions       0     0     0     0     0     0     0     0     0
## 174 Developing regions       5     5     2     3     6     5     8    23    11
## 175 Developing regions       2     4     7     1     2     5     7     0     4
## 176 Developing regions     958   947   972   766   606   699   955  1676  2218
## 177 Developing regions      58    51    55    46    51    57    64    86   130
## 178 Developing regions     481   874   706   280   338   202   257   397   346
## 179 Developing regions       0     0     0     0     0     0     0     0     0
## 180 Developing regions       0     1     0     0     1     0     0     0     1
## 181 Developing regions      13    16    17    38    32    29    40    70    60
## 182  Developed regions       0     0     0     0     0     0     0     0     0
## 183 Developing regions       0     2     2     1     2     0     5     4     1
## 184  Developed regions   22045 24796 20620 10015 10170  9564  9470 21337 27359
## 185 Developing regions     635   832   621   474   473   460   403   538   532
## 186  Developed regions    9378 10030  9074  7100  6661  6543  7074  7705  6469
## 187 Developing regions     128   132   146   105    90    92   137   269    99
## 188 Developing regions       0     0     0     0     0     0     0     0     0
## 189 Developing regions       0     0     0     0     0     0     0     0     0
## 190 Developing regions     103   117   174   124   142   165   179   229   279
## 191 Developing regions    1191  1829  2162  3404  7583  5907  2741  1406  1411
## 192 Developing regions       0     0     0     0     0     0     0     0     0
## 193 Developing regions       1     2     1     6     0    18     7    12     7
```

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## 194 Developing regions     11     17     11      7     16      9     15     23     44
## 195 Developing regions     72    114    102     44     32     29     43     68     99
##      X1989 X1990 X1991 X1992 X1993 X1994 X1995 X1996 X1997 X1998 X1999 X2000
## 1     1076  1028  1378  1170   713   858  1537  2212  2555  1999  2395  3326
## 2        3     3    21    56    96    71    63   113   307   574  1264  1816
## 3      434   491   872   795   717   595  1106  2054  1842  2292  2389  2867
## 4        1     2     0     0     0     0     0     0     0     0     0     0
## 5        0     3     0     1     0     0     0     0     0     2     0     0
## 6        6     8    23    26    22     8    26    38    27    58    49    70
## 7       51    31    59    61    44    18    23    21    27    19    12    13
## 8      538   678   763  1023  1022   366   380   396   391   349   318   427
## 9        0     0     0    22    21    66    75   102   115    89   112   124
## 10     553   620   640   734   886   702   668   699   623   479   523   599
## 11     227   158   189   131   132   133   153   191   152   190   117    97
## 12       0     0     0     0    17    18    23    26    38    62    54    77
## 13      32    18    29    16    20    21    17    30    17    14    13    14
## 14       9     6     9     9    11    14    10    17    28    14    27    34
## 15     387   611  1115  1655  1280  1361  2042  2824  3378  2202  2064  3119
## 16     275   327   373   336   380   179   211   176   153   139   114   122
## 17       0     0     0    12    40   114   118   156   349   540   426   515
## 18     307   303   216   208   240   201   240   279   227   307   209   369
## 19      33    38    41    27    37    41    43    27    33    20    37    28
## 20      14    13    13    25    25    18    15    29    32    19    37    35
## 21       1     0     2     2     1     1     4     2     2     1     3     6
## 22      68    71   214   247   180    75    61    96    43    33    42    33
## 23       0     0     0   258  2095  2090  3007  2599  2214  2789  2737   854
## 24       8     2     2     4     4     0     2     3     2     0     2     3
## 25     650   650   877  1066   866   566   572   586   591   531   626   845
## 26      63    44    65    31    36    14    17     4     6     1     3     6
## 27      85   172   611  1116   965   687   762   825   732   779   832  1172
## 28       4     4    22    21    19     3    12    16    23    14    20    31
## 29      14    19     9    19    14    28   126   367   207    94   202   342
## 30       7    14    16    15    11     9     4     7    16     9     3     4
## 31      27    34    38    93   418   371   286   216   313   241   165   245
## 32      38    34    66    71    78    67   122   178   104   197   220   244
## 33       0     3     3     4     3     1     1     1     0     0     0     0
## 34       4     6     2    11     4     4     4     6     9    17     6    13
## 35      14     8     2    10    13     6     5    38    26    30   122   148
## 36    1023  1286  1749  1175   697   352   273   244   325   376   397   366
## 37    4323  8076 14255 10846  9817 13128 14398 19415 20475 21049 30069 35529
## 38       0     0     0     0     0     0     0     0    24   257   400   470
## 39       0     0     0     0     0     0     0     0     0     0     0     1
## 40     439   614   652   582   464   375   371   381   578   929  1306  2259
## 41       2     1     3     0     2     4     4     5     2     4     1     3
## 42       5     3     6    13     4    14    11    15    25    44   102   119
## 43      92    99   156   216   184    83    89   118   135   103   100   106
## 44      37    42    62    62    67    68   101   102    67    57   110   118
## 45       0     0     0   151   938   692   647   541   622   676   993   715
## 46     122   135   158   220   374   360   421   508   566   531   696   842
## 47      55    27    37    29    42    24    16    31    36    19    15    16
## 48       0     0     1     0   107   155   128   149   182   206   524   470
## 49       0     1     4    16     0     1     0     0     4     1     4     6
## 50      48   116   223   439   404   309   529   796   663   768   937  1232
## 51     129   118   111   158   186    93   111    70    83    63    81    93
```

```
## 52       6      10      14      34      23      10      13      19      28      30      85     145
## 53      96      77     127     125     106      57      77      66      68      56      67      72
## 54     409     363     517     557     646     432     276     306     285     210     254     241
## 55     278     552     643     644     547     431     368     310     317     295     291     342
## 56    1663    2365    1860    1558    1598    2375    2821    2561    2137    1387    1378    1642
## 57    2955    4384    7124    5670    2977    1217     722     736     603     477     424     569
## 58       0       0       1       2       1       0       0       0       3       1       0       4
## 59       0       0       0       0       0      33      58     100      80      77      79     153
## 60       0      14       4      30      51      39      70      89      73      50      54      58
## 61    1096     890    1168    1876    1779    1204     870     999     739     563     678    1074
## 62     736    1172    1619    1782    1317    1016     674     621     448     388     360     458
## 63      78      73      63      76      98      99      76      58      82      55      63      70
## 64    2332    2177    2911    3487    3709    2759    3332    2623    2473    3214    3343    3765
## 65       4      10       5       3       8       4       5       9      12      14      20      16
## 66       6      12      21      51      43      15      23      19      25      17      18      23
## 67       0       0       0       8      22      27      67      49      46      92      46      83
## 68    1706    1273    1273    1181    1488    1255    1553    1686    1397    1363    1717    1703
## 69     429     449    1134    2502    2201    1341    1475    1219    1274    1040     845     959
## 70     773     538     592     492     445     275     220     221     190     141     149     150
## 71     170     172     268     434     492     235     364     366     387     330     294     372
## 72     773    1023    2156    1906    1392     757     640     655     519     358     287     329
## 73      17      10      44      36      32      16      49      61      38     107     100     168
## 74       4       4       4       1       2       2       2       3       4       0       1       1
## 75    3270    2824    3266    2932    3399    4181    3935    2324    1795    1238    1366    1308
## 76    2377    2379    2829    2399    3655    2100    2014    1955    1645    1295    1439    1631
## 77     138     187     688     840     551     291     270     299     225     167     173     201
## 78     979     780     775     795     603     349     306     364     319     337     408     418
## 79       3       2      11      17      15      11       9      14      11      20      17       9
## 80   10343   12041   13734   13673   21496   18620   18489   23859   22268   17241   18974   28572
## 81     260     227     252     243     278     262     205     231     166     165     525    1138
## 82    3781    3655    6250    6814    3959    2785    3956    6205    7982    7057    6208    5884
## 83     911     557    1013    1498    2103    1500    2034    2675    2564    2037    2159    2591
## 84    1378     845     705     533     436     331     231     276     220     170     162     178
## 85    1762    1596    1358    1259    1584    1699    2224    2515    2998    3172    2387    2510
## 86    1068     895     711     623     663     558     508     476     491     399     410     383
## 87    3946    4945    5056    5991    6065    3913    3619    3282    2847    2253    2358    2482
## 88     494     379     506     605     907     956     826     994     924     897    1083    1010
## 89     785     841     807     909    1141    1173    1006    1070    1317     999    1218    1511
## 90       0       0       0       3      24      42      56     152     593     884     537     450
## 91    1140     869     605     529     478     414     434     369     223     203     310     495
## 92       2       0       0       0       1       0       1       1       0       2       0       1
## 93      19      26      31      96     109      99     130     187     108     121      80     114
## 94       0       0       0       0       7       8      10       8      43      63      68      56
## 95      44      34      33      63      44      52      40      24      31      16      31      36
## 96       0      10      17      23      47      80      73      67     123     119     127     130
## 97    7157   13568   12567    6915    4902    2751    2228    1919    1472    1329    1594    1903
## 98       5       1       4       4       7       2       3       9       2       1       4       1
## 99       7       5      11      52      37      40      55      59      61      28      36      56
## 100     77      47      86      89      85      74     116     128     156     113     157     208
## 101      1       0       1       2       3       1       0       7       2       0       2       0
## 102      1       5      11      43      63      84     103      87     114      74      96     116
## 103      8       1       3       1      18       9       1       7       9       3       1       5
## 104     27      28      37      34      55      16      30      35      56      48      34      32
## 105      4      10       9       4      12       6       5       6      11       8      14      12
```

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```
## 106   2346  1917  1338  1486  1000   727   490   382   319   214   299   360
## 107      0     0     0     3     3     0     0     0     0     1     0     1
## 108      7    13    31    90    51    35    36    67    26    43    30    66
## 109     68    38    29    28    12    10    15    21    12    15    13    10
## 110      0     0     0     0     0     0     0     0     0     0     0     0
## 111      6     4     5     7     8     6     3    10    11     6    11    15
## 112    399   401   358   336   276   176   147   159   136   159   138   199
## 113   1017  1193  1134  1189  1139   776   758  1234  1689  1379  1679  1662
## 114      1     3     0     0     3     1     1     1     0     0     0     1
## 115      0     1     1     1     0     1     1     8     1     0     1    17
## 116      0     0     0     0     0     0     0     0     0     0     0     0
## 117   1060  1313  1390  1055  1042   660  1069   939  1095  1262  1870  2664
## 118      5     3     6     6     8     3     5     1     2     8     8     3
## 119     77   133   104    62   100   172   199   229   205    68    98   121
## 120      2     2     4     0     5     0     9     2     0     0     4     9
## 121      0     0     0     0     0     0     0     0     0     0     1     1
## 122      4    23    29    32    40    31    66   132   155   104   157   236
## 123    825   637   614   609   637   532   596   994   712   653   873   838
## 124      0     0     0     0     0     0     0     0     0     0     0     0
## 125    237   270   227   341   352   234   210   219   181   146   164   212
## 126    705   710  1517  2062  1069   261   251   248   195   124   144   140
## 127      1     1     7     7     4     2    13     7    14    12    19    20
## 128    195   181   281   498   428   323   430   531   657   757   966  1182
## 129     76    83   103    74    92    60    65    70   104    31    36    56
## 130      1     5     0     5     1    12    11     2     7     4     3     7
## 131   2261  2470  3079  4071  4777  4666  4994  9125 13073  9068  9979 15400
## 132      0     0     0     0     0     0     0     0     0     0     0     0
## 133    108   116   658   611   420   103    63    73    70    37    22    45
## 134      0     1     2     4     0     5     1     2     0     0     1     4
## 135     48    56    51    94    75    46    39    38    30    25    34    29
## 136   1667  1384  1522  1632  1274   993   827   845   676   493   560   603
## 137  11865 12509 12718 13670 20479 19532 15864 13692 11549  8735  9734 10763
## 138  16025 17040 16028 12145  6960  3550  2405  2136  1758  1488  1354  1471
## 139   8570  8452  6286  3328  2347  1599  1405  1237  1167   625   458   469
## 140      0     2     6     5     3     2     4     4     7     3     7     4
## 141   2979  2087  2598  3790  3819  3005  3501  3250  4093  4938  7108  7618
## 142      0     0     0    20    70   225   273   230   294   216   199   288
## 143   1582  2252  2337  3147  3676  3495  4279  3909  3993  3033  3538  4539
## 144      0     0     0   172   906  1327  1819  2640  3708  4388  4053  3843
## 145     11    16    18    53    68    73   159   227   144   192   410   383
## 146     45    32    31    52    29    20    20    18    22    12     9    11
## 147     76    95   126   120   142    76   100   111    84    57    83    94
## 148    133   179   288   290   370   187   243   256   272   193   209   279
## 149      1     2     3     1     5     3     2     2     3     4     0     1
## 150      0     1     0     0     0     0     0     0     0     0     0     0
## 151      0     0     0     0     0     0     0     0     2     0     0     1
## 152     41    22    47    71    55    43    40    84    78    71    74    89
## 153     22    38    71    80    77    49    67   122    82   107   116   121
## 154      0     0     0     0     0     0     0     0     0     0     0     0
## 155     25    78   233   369   191    34    19    27    12    18    17    15
## 156     18    12    41    59    24    36    48    63    83    53    42   308
## 157   1269   843   657   492   474   375   407   409   287   231   437   444
## 158      0     0     1     0   113   103   143   232   236   289   500   460
## 159      0     0     0     5    46    47    22    41    26    15    35    24
```

```
## 160    401  1059  3266  5794  3734  1576  2000  1541  1084  1397  1652  1568
## 161   1301   902   823  1059  1549  2366  1455  1308  1729  1350  1478  1763
## 162    168   122   165   130   160    84    78   105    88    87    81    93
## 163   2758  3525  7266 13102  9563  7150  9368  6484  5415  3566  4982  6081
## 164      0     0     0     0     0     0     0     8    26   146   180   238
## 165     98   151   230   510   432   361   492   714   832   639   589   914
## 166     24    26    13    53    51    32    58    51    35    22    11    16
## 167      3     4     1     4     2     3     5     2     4     3     4     2
## 168    182   130   167   179   203   192   176   161   151   123   170   138
## 169    523   505   602   666   728   475   687   823   666   510   536   471
## 170   1454  1791  1596  1172  1247   965  1053   942   859   892   823   924
## 171      0     0     0     0     5     5     5     2    11     4     4     5
## 172    177   171   219   219   279   237   172   195   152   201   246   258
## 173      0     0     0     0    65   225   193   138    71   106   180   237
## 174     14    17    23    39    38    18    49    75    52    53    52    57
## 175      9     7     4     4     5     7     9     8     8     2     6     0
## 176   3054  2843  3026  4374  4246  2338  2591  2198  1748  1189  1166   899
## 177    242   326   306   315   245   197   271   256   242   237   323   437
## 178    488   767   941  1116  1316   908   732   638   679   777   806  1101
## 179      0     0     0     0     1     1     0    10     6     4     2     7
## 180      0     0     0     1     0     0     0     0     0     0     0     0
## 181     47    75    69   143    79    54    91    62    43    40    51    64
## 182      0     0     0   103   761  1289  1751  2684  2518  2702  2836  3351
## 183     17     7    23    27    11    13     8    33    27    25    24    27
## 184  23795 31668 23380 34123 33720 39231 30145 29322 22965 10367  7045  8840
## 185    662   739   577   398   407   286   313   264   211   138   157   200
## 186   6790  5892  6054  6842  7435  5901  4890  5515  4753  4437  5196  5433
## 187    144   111   229   299   437   125   164   171   117    87    93    75
## 188      0     0     0    12    44    33    34    58    75    97   106   101
## 189      0     1     0     4     0     0     0     0     0     0     0     0
## 190    304   344   487   610   490   334   402   520   686   489   464   443
## 191   3004  3801  5870  5416  6547  5105  3723  2462  1752  1631  1419  1803
## 192      0     0     1     0     0     0     0     0     0     0     0     0
## 193     18     4    18    41    41    39    73   144   121   141   134   122
## 194     68    77    69    73    46    51    41    34    72    34    51    39
## 195    187   129    94    61    72    78    58    39    44    43    49    98
##       X2001 X2002 X2003 X2004 X2005 X2006 X2007 X2008 X2009 X2010 X2011 X2012
## 1     4067  3697  3479  2978  3436  3009  2652  2111  1746  1758  2203  2635
## 2     1602  1021   853  1450  1223   856   702   560   716   561   539   620
## 3     3418  3406  3072  3616  3626  4807  3623  4005  5393  4752  4325  3774
## 4        0     0     0     0     0     1     0     0     0     0     0     0
## 5        1     0     2     0     0     1     1     0     0     0     0     1
## 6      169   168   165   268   295   184   106    76    62    61    39    70
## 7       25    17    25    14    24    32    15    32    38    27    37    51
## 8      635   865  1745  1591  1153   847   620   540   467   459   278   263
## 9       87   132   153   147   224   218   198   205   267   252   236   258
## 10     799   747   876   930   909   875  1033  1018  1018   933   851   982
## 11     134    87   113   118   122   102    98    91   109   124    84   102
## 12      98   186   167   230   359   236   203   125   165   209   138   161
## 13      20    17    14    13    14    18    23    30    27    25    40    60
## 14      13    17    15    12    12    12    22     9    35    28    21    39
## 15    3831  2944  2137  2660  4171  4014  2897  2939  2104  4721  2694  2640
## 16     148   122    74    90   111    97   130   134   125   121    97   132
## 17     430   435   435   543   558   439   568   524   454   438   357   277
```

```
## 18    340   307   320   411   400   302   363   335   358   363   332   402
## 19     24    35    16    25    37    24    28    48    38    39    36    34
## 20     66    71    78   112    95   116   183   205   238   290   284   391
## 21      6     8     7     1     5    10     7    36   865  1464  1879  1075
## 22     72    57    59    85   134   139   107   143   214   180    86    83
## 23    801   433   267   188   211   217   209   182   156   168   140   121
## 24      2     4     4     9     7    11     8    28    15    42    53    64
## 25    847   745   839   917   969  1181  1746  2138  2509  2598  1508  1642
## 26      3     4     6     3     4     5    11    10     5    12     6     3
## 27   1283  1517  1507  2022  1738  1419  1172   994   784   556   365   451
## 28     46    37    34    97    91   147   136   139   162   186   144   269
## 29    334   364   383   559   626   468   614   448   566   529   604   684
## 30      5     2    13     3     5     7     2     5     1     3     3     6
## 31    259   230   277   348   370   529   460   354   203   200   196   233
## 32    206   222   301   436   604   697  1025  1279  1344  1800  1638  2507
## 33      0     0     0     0     0     0     0     0     0     0     1     1
## 34      6    20    10    13    49    18    30    28    19    26    18    45
## 35     90    76    64    92   126    96   131    95    87    98    79    97
## 36    369   401   347   383   384   427   530   350   375   340   174   291
## 37  36434 31961 36439 36619 42584 33518 27642 30037 29622 30391 28502 33024
## 38    379   430   446   536   729   712   674   897   657   623   591   728
## 39     15    28    21    21    21    32    16    12    21    21    13    33
## 40   2965  3283  4318  4566  6424  6535  5357  5452  4652  5218  4366  3741
## 41     14     2    11     6     5     7    11     3    19    22    14    18
## 42    106    84   112   142   136   143    87    72    70    75    81    91
## 43    134   106   105   165   188   279   281   246   217   190   149   183
## 44    143   184   119   256   294   431   619   646   668  1066   636  1024
## 45    376   304   177   151   128   102   102   131    92    91   135   112
## 46    950   872   877   866   999  1064  1350  1300  1433   961   962  1304
## 47     22    13    17    11     7     9     4     7     6    18     6    12
## 48    290   226   181   191   193   146   137   104   159   168   128   173
## 49      8    11    18    15    14    10     7    19    11    45    97    66
## 50   1248  1103  1233  1465  1521  1623  1466  1397  1581  1239  1224  1714
## 51     81    70    89    89    62   101    97   108    81    92    93    94
## 52     96    62    43    67    93    68    50    47    70   123   127   164
## 53     82    62    65    50    59    72    79    60    59    43    36    43
## 54    264   202   234   270   303   295   311   438   391   479   739   604
## 55    353   418   361   417   491   525   419   437   373   353   348   282
## 56   2595  2039  2230  2393  2496  2190  2356  3347  3496  5982  4663  5555
## 57    453   473   446   442   436   430   929  1115   845   787   691   641
## 58      1     2     2     2     3     4     5     1     5     4     4     4
## 59    221   176   262   414   528   700   699   799   904   931  1182  1335
## 60     30    38    56    27    26    18    34    34    26    28    15    26
## 61   1062   818  1399  1535  1506  1801  1512  1613  1289  1865  2163  1864
## 62    643   611   561   495   298   277   304   321   311   398   316   270
## 63     53    59    65    54    67    51    62    89    63    63    72    62
## 64   3806  3463  3568  4391  4429  4002  4290  4532  5051  4646  4080  6280
## 65     26    24    42    33    67    68   101    86    86    64    63    74
## 66     22    10    10    10    29    38    32    25    10    37    24    18
## 67    124   123   127   106   114   125   132   112   128   126   139   147
## 68   1456  1375  1865  2020  2226  2767  2449  3833  3887  2956  2053  1702
## 69    782   696   564   738   851   710   688   629   659   802   528   531
## 70    135   107   117   120   100    74   110   107   119   101   102   146
## 71    354   259   222   296   283   363   360   284   325   208   173   142
```

```
## 72      269    242    179    217    190    230    258    263    264    266    288    358
## 73      177    205    196    281    256    342    415    327    347    395    352    407
## 74        3      2      6      4      7     12      7      2      0      2      2      4
## 75     1707   1479   1410   1341   1215   1286   1277   1137   1180    953    804    676
## 76     2433   2174   1930   1652   1682   1619   1598   2491   2080   4744   6503   5868
## 77      180    143    105    133    166    164    165    187    169    386    538    436
## 78      627    537    489    671    516    520    425    383    312    354    287    300
## 79       26     11     17     23     10      2     15     13     15     30     38     42
## 80    31223  31889  27155  28235  36210  33848  28742  28261  29456  34235  27509  30933
## 81      907    709    515    552    632    613    657    661    504    712    390    395
## 82     6169   8129   5918   6348   5837   7480   6974   6475   6580   7477   7479   7534
## 83     2821   2432   1515   1796   2226   1788   2406   3543   5450   5941   6196   4041
## 84      190    178    192    244    224    283    300    412    395    547    525    725
## 85     2436   2539   2314   2788   2446   2625   2401   2562   2316   2755   1970   2134
## 86      410    374    321    334    344    325    320    370    429    434    374    440
## 87     2838   2524   2054   2237   1945   1722   2141   2334   2456   2321   2059   2182
## 88     1092    806    817    973   1067   1212   1250   1284   1194   1168   1265   1214
## 89     1904   1499   1614   1733   1940   1827   1421   1581   1235   1831   1635   1206
## 90      501    418    542    545    506    408    436    394    431    377    381    462
## 91      651    630    678    685    693    622    449    453    489    507    585    725
## 92        1      0      0      0      1      0      0      1      1      0      0      2
## 93      107     74     72     74     66     35     62     53     68     67     58     73
## 94       95    124     99    245    173    161    135    168    173    157    159    278
## 95       40     49     22     38     42     74     53     32     39     54     22     25
## 96      175    156    110     94     77     69     88     67     85     70    103    202
## 97     2578   2332   3179   3293   3709   3802   3467   3566   3077   3432   3072   1614
## 98        0      2      2      2      4      0      4      1      8      7      1      0
## 99       60     57    139    409    581    356    153     74     94    162    106     58
## 100     228    210    153    196    196    281    198    306    282    384    352    299
## 101       2      0      1      0      1      0      0      1      1      0      2      1
## 102     183    125    194    220    167    113    108    109     63     57     52     77
## 103       5     17      9      9     10      9      9      3      5      8     11      6
## 104      57     59     48     79     88     96    115    118    169    178    148    165
## 105       5      7      3     17     23     15     13      5     10     28     16      9
## 106     460    480    419    401    593    580    600    658    640    802    409    358
## 107       0      1      0      1      0      0      2      1      7      4      3      1
## 108      67     62     72     87     87    114    143    154    164    170    155    191
## 109      24     16     28     28     28     24      7     21     18     17      8      9
## 110       0      0      0      0      0      0      2      0      0      0      0      0
## 111      30     27     23     60     86    124     96    112     83     74     54     77
## 112     393    348    566    702    696    512    507    714    872   1455   1146    799
## 113    1939   1894   1754   2259   2837   2844   3239   2856   3092   3865   3947   4227
## 114       1      1      1      1      1      1      1      0      0      4      1      3
## 115      17     20     28     34     59     64     82     59    118    169    103     68
## 116       0      0      1      0      0      0      7     19     10     14     19     26
## 117    4067   4174   3369   3686   2939   3322   4021   4226   5532   6242   4399   3878
## 118       2      5      3      8      5      9      5      5     12      7      3      4
## 119     113    164    263    191    210    953   1887    975   1153    556    368    193
## 120       9     10      7      9      6     19     13     26     14     16     23     24
## 121       3      2      4      1      1      1      0      0      1      0      0      0
## 122     272    363    313    404    607    540    511    581    561   1392   1129   1185
## 123     806    676    617    749    813    837    615    818    786    759    586    504
## 124       1      0      1      0      0      0      0      1      0      0      0      0
## 125     360    321    345    350    370    318    350    480    520    490    375    417
```

```
## 126    108    69     88     67     79     96     76    124    116     94    123    106
## 127     23     30     30     38     59     57     75     75     82     80     90     95
## 128   1426   1403   1064   1518   2236   2594   2375   2109   3156   3906   3103   3443
## 129     78     74     77     73     57     53     73     66     75     46     49     53
## 130     12      7     11     12     14     18     16     10      7     14     10     13
## 131  16708  15110  13205  13399  14314  13127  10124   8994   7217   6811   7468  11227
## 132      0      0      0      0      0      0      1      0      0      0      0      0
## 133     50     48     54     38     57     73     63     52     73     65     49     34
## 134      2      0      4      1      1      0      0      9      1      3      0      3
## 135     34     60     88     74     75     88     98     95     88     89     83     55
## 136    849    855   1023   1460   1653   1473   1490   1094   1884   1283    886    787
## 137  13836  11707  12758  14004  18139  18400  19837  24887  28573  38617  36765  34315
## 138   1601   1447   1394   1533   1405   1263   1235   1267   1013    795    720    779
## 139    531    364    329    336    338    424    405    665    623    629    528    560
## 140     21      4      4      5     11      2      5      9      6     18      3     14
## 141   9619   7342   7117   5352   5832   6215   5920   7294   5874   5537   4588   5316
## 142    513    612    592    628    655    803   1099   1127   1535   1988   1367   1416
## 143   5652   5765   5541   5755   5048   4468   3834   2837   2076   1922   1776   1588
## 144   4351   3941   3718   3989   3972   3117   2983   2690   2931   2288   1963   2079
## 145    286    215    290    299    378    360    420    358    415    396    492    562
## 146     11      8     12      8     11      3     10     25     11     22     12     21
## 147    116     82     89    110    185    190    255    298    257    249    261    382
## 148    288    240    199    294    343    383    579    434    511    434    451    523
## 149      2      2      3      3      2      0      1      4      2      5      3      2
## 150      0      0      1      0      0      0      0      0      0      1      0      0
## 151      0      0      0      1      1      1      0      0      1      2      0      0
## 152     98     71     70    128    198    252    188    249    246    330    278    286
## 153    129    165    171    210    278    416    433    555    668    765    740    949
## 154      0      0      0      0      0      3     50    259    365    271    299    395
## 155      9      4     13     15     25      8      9     18      4     10     10      6
## 156    386    412    391    347    191    138     92    103     70     63     96     72
## 157    473    588    391    311    392    298    690    734    366    805    219    146
## 158    585    615    501    597    369    241    215    125    128    135    134    136
## 159     22     16     18     17     23     11     29     18     27     12     13     36
## 160   1155    730    957   1364   1198   1061   1166   1015   1214   1528   1535   1582
## 161   1899   1498   1245   1175    988   1111   1200   1123   1188   1238    959   1243
## 162     79     87     89    133    126    124    137    169    195    174    179    262
## 163   5861   5279   4892   4495   4930   4714   4123   4756   4547   4422   3309   3338
## 164    343    266    323    376    453    627    441    481    400    654    555    533
## 165   1105   1489   1862   1823   1310   1039    683    622    422    612    531    444
## 166     22     22     22     17     15     16     20      9     12     13     11     16
## 167      2      1      0      8      7      7      5      6     10      3     13     17
## 168    184    149    161    129    205    139    193    165    167    159    134    140
## 169    383    276    346    337    270    258    308    357    328    285    266    243
## 170   1067    956   1085   1116   1458   1145   1056    919    917   1039   1005    650
## 171     20      9      7     14     85     46     44     15     50     52     47     34
## 172    309    547    439    392    575    500    487    519    512    499    396    296
## 173    291    353    638    443    285    256    211    191    198    188    130    126
## 174     94    105    106    163    157    149    235    351    400    354    261    299
## 175      6      2      5      5      2      0      1      0      5      5      2      3
## 176    904    928    707    730    857    794    975   1002   1134    915    588    586
## 177    788    661    669    764    756   1065    869    950   1195   1299   1442   1503
## 178   1184   1301   1338   1736   2065   1638   1463   1122   1238   1492   1257   1068
## 179     10     11     22     16     40     26     37     13     20     30     20     20
```

```
## 180      0      0      0      2      0      0      1      0      0      0      1      0
## 181     94     90    117    160    239    201    170    204    185    216    213    222
## 182   3514   3520   2759   2431   2270   1973   2218   1937   2367   3159   2515   2265
## 183     41     37     32     41     31     42     37     33     37     86     60     54
## 184  11728   8046   6797   7533   7258   7140   8216   8979   8876   8724   6204   6195
## 185    301    298    320    310    274    291    195    230    136    200    215    224
## 186   5604   4948   5543   6990   8394   9613   9463  10190   8995   8142   7676   7891
## 187     64     91    103    130    217    175    147    160     99     93     81     47
## 188    102    144    155    175    330    262    284    215    288    289    162    235
## 189      1      0      1      1      1      1      0      0      1      0      0      0
## 190    560    524    699   1224   1211   1192   1335   1239   1353    998   1452   1373
## 191   2117   2291   1713   1816   1852   3153   2574   1784   2171   1942   1723   1731
## 192      0      0      0      0      0      1      0      0      0      0      0      0
## 193    181    171    113    124    161    140    122    133    128    211    160    174
## 194     78     50     46     56     91     77     71     64     60    102     69     46
## 195    110    191    669   1450    615    454    663    611    508    494    434    437
##      X2013  Total newTotal
## 1     2004  58639  117278
## 2      603  15699   31398
## 3     4331  69439  138878
## 4        0      6      12
## 5        1     15      30
## 6       45   2113    4226
## 7       25    981    1962
## 8      282  19596   39192
## 9      207   3310    6620
## 10    1121  23829   47658
## 11      90   4985    9970
## 12      57   2649    5298
## 13      55    808    1616
## 14      32    475     950
## 15    3789  65568  131136
## 16      97   6923   13846
## 17     247   7975   15950
## 18     379  10762   21524
## 19      53   1083    2166
## 20     397   2852    5704
## 21     487   5876   11752
## 22     107   3205    6410
## 23     119  21855   43710
## 24      76    396     792
## 25    1714  29659   59318
## 26       6    600    1200
## 27     512  23310   46620
## 28     322   2043    4086
## 29     480   8110   16220
## 30       2    201     402
## 31     288   6538   13076
## 32    2439  16021   32042
## 33       2     20      40
## 34     169    550    1100
## 35      86   1653    3306
## 36     273  21359   42718
## 37   34129 659962 1319924
```

```
## 38      774    9327    18654
## 39       29     284      568
## 40     3631   72088   144176
## 41       22     194      388
## 42      114    1686     3372
## 43      122    4489     8978
## 44     1170    8291    16582
## 45      125    8001    16002
## 46     1402   20365    40730
## 47       16    1126     2252
## 48      174    4192     8384
## 49       17     388      776
## 50     2050   25582    51164
## 51       81    3901     7802
## 52      201    1646     3292
## 53       48    2470     4940
## 54      590   11193    22386
## 55      418   12233    24466
## 56     4165   72745   145490
## 57      639   54878   109756
## 58       11      61      122
## 59     1719   10450    20900
## 60       45     935     1870
## 61     1606   35136    70272
## 62      228   20609    41218
## 63       76    2781     5562
## 64     5623  109091   218182
## 65       90     952     1904
## 66       33     603     1206
## 67      125    2068     4136
## 68     1217   63912   127824
## 69      517   26032    52064
## 70      298   12410    24820
## 71      170    9091    18182
## 72      345   19465    38930
## 73      463    4891     9782
## 74        0      83      166
## 75      656   75785   151570
## 76     4152   84813   169626
## 77      350    7770    15540
## 78      425   16822    33644
## 79       72     570     1140
## 80    33087  691904  1383808
## 81      387   13150    26300
## 82    11291  175923   351846
## 83     4918   69789   139578
## 84     1015   16964    33928
## 85     1945   66508   133016
## 86      545   22624    45248
## 87     2479  106431   212862
## 88      982   27707    55414
## 89     1255   35406    70812
## 90      348    8490    16980
## 91      664   17228    34456
```

```
## 92       0      15        30
## 93      48    2025      4050
## 94     123    2353      4706
## 95      15    1089      2178
## 96     213    2326      4652
## 97    2172  115359    230718
## 98       6     107       214
## 99      39    2759      5518
## 100    255    4909      9818
## 101      0      40        80
## 102    145    2414      4828
## 103      7     215       430
## 104    229    2194      4388
## 105     10     294       588
## 106    204   24417     48834
## 107      1      30        60
## 108    190    2188      4376
## 109      4    1546      3092
## 110      0       2         4
## 111     57    1016      2032
## 112   1203   15690     31380
## 113   3996   58712    117424
## 114      1      29        58
## 115     99     952      1904
## 116      9     105       210
## 117   3261   72267    144534
## 118     12     160       320
## 119    262    9245     18490
## 120     83     320       640
## 121      1      18        36
## 122   1308   10222     20444
## 123    395   26884     53768
## 124      2       5        10
## 125    415   10386     20772
## 126     96   12095     24190
## 127    105     952      1904
## 128   4172   39732     79464
## 129     59    2327      4654
## 130     11     224       448
## 131  12603  241600    483200
## 132      0       1         2
## 133     43    3161      6322
## 134      3      64       128
## 135     66    1944      3888
## 136    682   32652     65304
## 137  29544  511391   1022782
## 138    852  139241    278482
## 139    630   74167    148334
## 140      6     157       314
## 141   4509  142581    285162
## 142   1231   15381     30762
## 143   1512   93585    187170
## 144   2466   63344    126688
## 145    415    6691     13382
```

```
## 146    18     653     1306
## 147   392    4802     9604
## 148   538    9707    19414
## 149     0      78      156
## 150     0       5       10
## 151     1      10       20
## 152   267    3425     6850
## 153   818    7362    14724
## 154   297    1939     3878
## 155     5    1266     2532
## 156    63    3351     6702
## 157   141   14579    29158
## 158   105    5963    11926
## 159    20     523     1046
## 160  2028   42109    84218
## 161  1240   40568    81136
## 162   331    5018    10036
## 163  2394  148358   296716
## 164   462    6512    13024
## 165   343   18506    37012
## 166     4     739     1478
## 167    39     188      376
## 168   140    5866    11732
## 169   201   15678    31356
## 170  1009   31485    62970
## 171    39     503     1006
## 172   400    9174    18348
## 173   112    4637     9274
## 174   316    3545     7090
## 175     5     142      284
## 176   427   50016   100032
## 177  1627   17583    35166
## 178   729   31781    63562
## 179    14     310      620
## 180     0       8       16
## 181   206    3450     6900
## 182  2487   51410   102820
## 183    46     836     1672
## 184  5827  551500  1103000
## 185   182   12496    24992
## 186  8501  241122   482244
## 187    58    4715     9430
## 188   167    3368     6736
## 189     0      11       22
## 190  1022   21267    42534
## 191  2112   97146   194292
## 192     0       2        4
## 193   217    2985     5970
## 194    59    1677     3354
## 195   407    8598    17196
```

#Create a training set using random number generator engine.

```
(N <- nrow(Dataset))
```

[1] 195

```
(target <- round(N*0.80))
```

[1] 156

```
gp <- runif(N)

Dataset_train <- Dataset[gp< 0.80,]

nrow(Dataset_train)
```

[1] 167

#Print the summary statistics of your dataset

```
summary(Dataset)
```

```
##    Country            Continent1            Region              DevName
##  Length:195         Length:195          Length:195          Length:195
##  Class :character   Class :character    Class :character    Class :character
##  Mode  :character   Mode  :character    Mode  :character    Mode  :character
##
##
##
##      X1980              X1981               X1982               X1983
##  Min.   :    0.0    Min.   :    0.0     Min.   :    0.0     Min.   :    0.0
##  1st Qu.:    0.0    1st Qu.:    0.0     1st Qu.:    0.0     1st Qu.:    0.0
##  Median :   13.0    Median :   10.0     Median :   11.0     Median :   12.0
##  Mean   :  508.4    Mean   :  567.0     Mean   :  534.7     Mean   :  387.4
##  3rd Qu.:  251.5    3rd Qu.:  295.5     3rd Qu.:  275.0     3rd Qu.:  173.0
##  Max.   :22045.0    Max.   :24796.0     Max.   :20620.0     Max.   :10015.0
##      X1984              X1985               X1986               X1987
##  Min.   :    0.0    Min.   :   0.0      Min.   :   0.0      Min.   :    0.0
##  1st Qu.:    0.0    1st Qu.:   0.0      1st Qu.:   0.5      1st Qu.:    0.5
##  Median :   13.0    Median :  17.0     Median :  18.0      Median :   26.0
##  Mean   :  376.5    Mean   : 358.9     Mean   : 441.3      Mean   :  691.1
##  3rd Qu.:  181.0    3rd Qu.: 197.0     3rd Qu.: 254.0      3rd Qu.:  434.0
##  Max.   :10170.0    Max.   :9564.0     Max.   :9470.0      Max.   :21337.0
##      X1988              X1989               X1990               X1991
##  Min.   :    0.0    Min.   :    0.0     Min.   :    0.0     Min.   :    0.0
##  1st Qu.:    1.0    1st Qu.:    1.0     1st Qu.:    2.0     1st Qu.:    3.0
##  Median :   34.0    Median :   44.0     Median :   38.0     Median :   51.0
##  Mean   :  714.4    Mean   :  843.2     Mean   :  964.4     Mean   : 1064.1
##  3rd Qu.:  409.0    3rd Qu.:  508.5     3rd Qu.:  612.5     3rd Qu.:  657.5
##  Max.   :27359.0    Max.   :23795.0     Max.   :31668.0     Max.   :23380.0
##      X1992              X1993               X1994               X1995
##  Min.   :    0.0    Min.   :    0.0     Min.   :    0.0     Min.   :    0.0
##  1st Qu.:    6.5    1st Qu.:   11.5     1st Qu.:    9.5     1st Qu.:   10.5
##  Median :   74.0    Median :   85.0     Median :   76.0     Median :   91.0
##  Mean   : 1136.9    Mean   : 1138.7     Mean   :  993.1     Mean   :  962.6
##  3rd Qu.:  655.0    3rd Qu.:  722.5     3rd Qu.:  545.0     3rd Qu.:  550.5
##  Max.   :34123.0    Max.   :33720.0     Max.   :39231.0     Max.   :30145.0
##      X1996              X1997               X1998               X1999
```

```
## Min.   :    0.0   Min.   :    0.0   Min.   :    0.0   Min.   :    0.0
## 1st Qu.:   14.5   1st Qu.:   19.5   1st Qu.:   15.0   1st Qu.:   16.0
## Median :  118.0   Median :  114.0   Median :  106.0   Median :  116.0
## Mean   : 1026.1   Mean   :  989.2   Mean   :  824.2   Mean   :  922.1
## 3rd Qu.:  603.5   3rd Qu.:  612.5   3rd Qu.:  535.5   3rd Qu.:  548.5
## Max.   :29322.0   Max.   :22965.0   Max.   :21049.0   Max.   :30069.0
##      X2000             X2001             X2002             X2003
## Min.   :    0    Min.   :    0.0   Min.   :    0.0   Min.   :    0.0
## 1st Qu.:   16    1st Qu.:   22.0   1st Qu.:   18.5   1st Qu.:   21.5
## Median :  138    Median :  169.0   Median :  165.0   Median :  161.0
## Mean   : 1111    Mean   : 1244.3   Mean   : 1144.2   Mean   : 1114.3
## 3rd Qu.:  659    3rd Qu.:  793.5   3rd Qu.:  686.0   3rd Qu.:  673.5
## Max.   :35529    Max.   :36434.0   Max.   :31961.0   Max.   :36439.0
##      X2004             X2005             X2006             X2007
## Min.   :    0.0   Min.   :    0.0   Min.   :    0    Min.   :    0
## 1st Qu.:   19.0   1st Qu.:   28.5   1st Qu.:   25    1st Qu.:   31
## Median :  191.0   Median :  210.0   Median :  218    Median :  198
## Mean   : 1190.2   Mean   : 1320.3   Mean   : 1267    Mean   : 1192
## 3rd Qu.:  756.5   3rd Qu.:  832.0   3rd Qu.:  842    3rd Qu.:  899
## Max.   :36619.0   Max.   :42584.0   Max.   :33848    Max.   :28742
##      X2008             X2009             X2010             X2011
## Min.   :    0.0   Min.   :    0    Min.   :    0.0   Min.   :    0.0
## 1st Qu.:   31.0   1st Qu.:   36    1st Qu.:   40.5   1st Qu.:   37.5
## Median :  205.0   Median :  214    Median :  211.0   Median :  179.0
## Mean   : 1246.4   Mean   : 1276    Mean   : 1420.3   Mean   : 1262.5
## 3rd Qu.:  934.5   3rd Qu.:  888    3rd Qu.:  932.0   3rd Qu.:  772.0
## Max.   :30037.0   Max.   :29622    Max.   :38617.0   Max.   :36765.0
##      X2012             X2013             Total
## Min.   :    0.0   Min.   :    0    Min.   :    1
## 1st Qu.:   42.5   1st Qu.:   45    1st Qu.:   952
## Median :  233.0   Median :  213    Median :  5018
## Mean   : 1314.0   Mean   : 1321    Mean   : 32868
## 3rd Qu.:  783.0   3rd Qu.:  796    3rd Qu.: 22240
## Max.   :34315.0   Max.   :34129    Max.   :691904
```

```
Dataset%>%group_by(Total)%>%summarise(mean(Total))
```

```
## # A tibble: 190 x 2
##    Total `mean(Total)`
##    <int>         <dbl>
## 1      1             1
## 2      2             2
## 3      5             5
## 4      6             6
## 5      8             8
## 6     10            10
## 7     11            11
## 8     15            15
## 9     18            18
## 10    20            20
## # ... with 180 more rows
```

#Use any of the numerical variables from the dataset and perform the following statistical functions

```
  mean(Dataset$Total)
```

[1] 32867.45

```
  median(Dataset$Total)
```

[1] 5018

```
  mode(Dataset$Total)
```

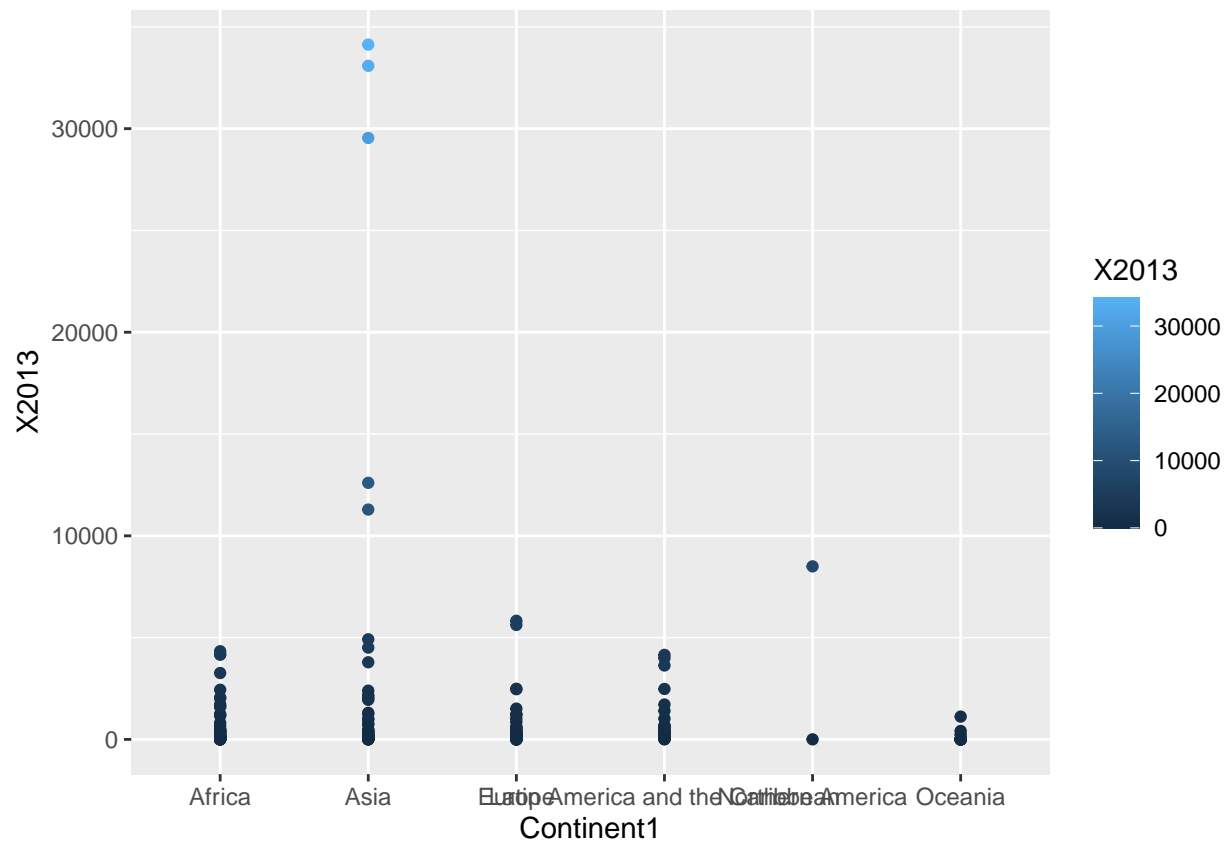## [1] "numeric"

```
  range(Dataset$Total)
```

[1]   1 691904

#Plot a scatter plot for any 2 variables in your dataset

```
  ggplot(data = Dataset,
         aes(x=Continent1, y=X2013, colour=X2013)) +
    geom_point()
```
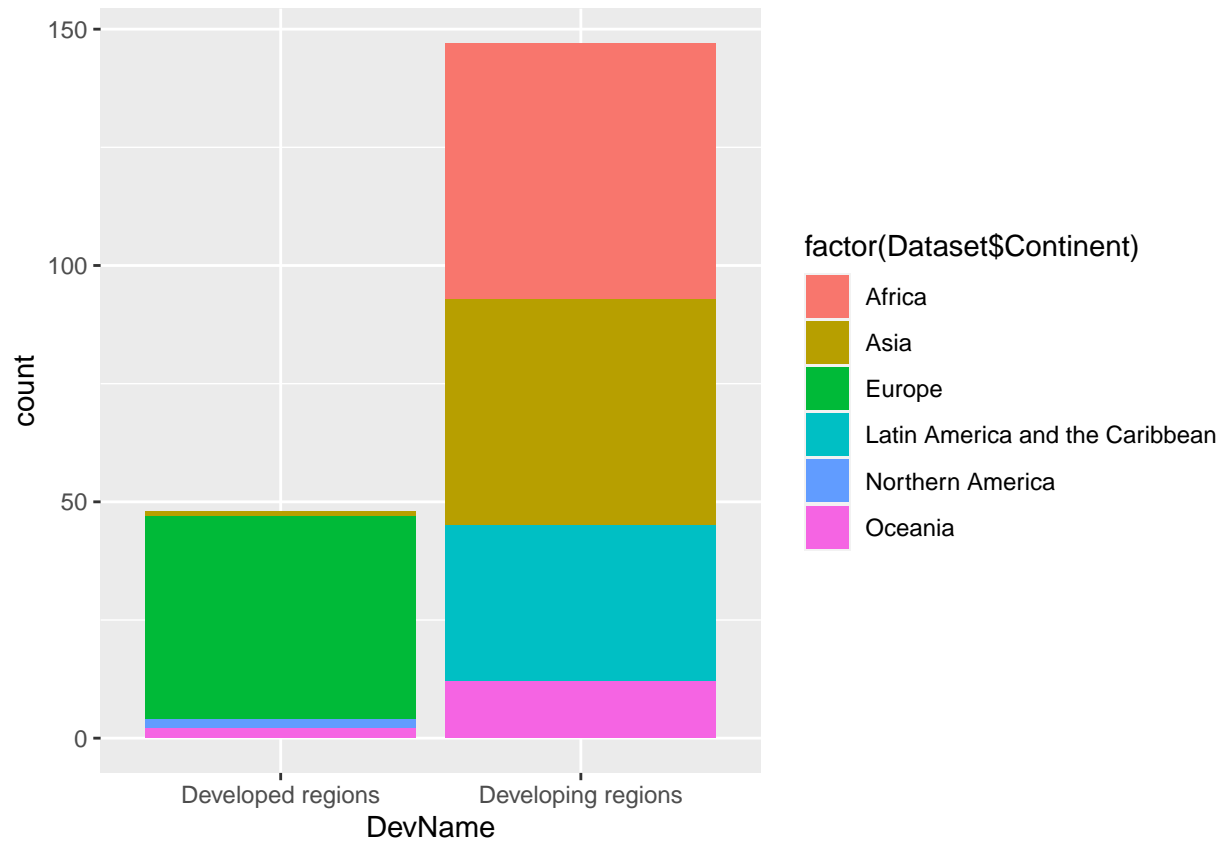

#Plot a bar plot for any 2 variables in your dataset

```
  ggplot(data = Dataset,
         aes( x=DevName, fill= factor(Dataset$Continent))) +
    geom_bar()
```

Warning: Use of `Dataset$Continent` is discouraged. Use `Continent` instead.

#Find the correlation between any 2 variables by applying least square linear regression model

```
X= Dataset$Total
Y= Dataset$X2013
xycorr= cor(Y,X,method = "pearson")
xycorr
```

[1] 0.915242