COUNTRIES OF THE WORLD

2023-02-19

DESCRIPTION

The dataset describes about the countries of the world.

The attributes are

- **Country**
- **Population**
- **Area**
- **Literacy**
- **Climate**
- **Birthrate**
- **Deathrate**
- **Agriculture**
- **Industry**
- **Service**

```
df=read.csv('datasets_23752_30346_countries of the world.csv')
#View(df)
summary(df)
```

```
##    Country            Population             Area                
Literacy
##  Length:227         Min.   :7.026e+03   Min.   :       2        
Length:227
##  Class :character   1st Qu.:4.376e+05   1st Qu.:    4648   Class
:character
##  Mode  :character   Median :4.787e+06   Median :   86600   Mode
:character
##                     Mean   :2.874e+07   Mean   :  598227
##                     3rd Qu.:1.750e+07   3rd Qu.:  441811
```

```
##                     Max.   :1.314e+09   Max.   :17075200
##    Climate           Birthrate          Deathrate
Agriculture
##  Length:227         Length:227         Length:227
Length:227
##  Class :character   Class :character   Class :character   Class
:character
##  Mode  :character   Mode  :character   Mode  :character   Mode
:character
##
##
##
##    Industry           Service
##  Length:227         Length:227
##  Class :character   Class :character
##  Mode  :character   Mode  :character
##
##
##

str(df)

## 'data.frame':    227 obs. of  10 variables:
##  $ Country    : chr  "Afghanistan" "Albania" "Algeria" "American
Samoa" ...
##  $ Population : int  31056997 3581655 32930091 57794 71201
12127071 13477 69108 39921833 2976372 ...
##  $ Area       : int  647500 28748 2381740 199 468 1246700 102 443
2766890 29800 ...
##  $ Literacy   : chr  "36,0" "86,5" "70,0" "97,0" ...
##  $ Climate    : chr  "1" "3" "1" "2" ...
##  $ Birthrate  : chr  "46,6" "15,11" "17,14" "22,46" ...
##  $ Deathrate  : chr  "20,34" "5,22" "4,61" "3,27" ...
##  $ Agriculture: chr  "0,38" "0,232" "0,101" "" ...
##  $ Industry   : chr  "0,24" "0,188" "0,6" "" ...
##  $ Service    : chr  "0,38" "0,579" "0,298" "" ...

names(df)

##  [1] "Country"     "Population"  "Area"        "Literacy"
"Climate"
##  [6] "Birthrate"   "Deathrate"   "Agriculture" "Industry"
"Service"

#dimension
dim(df)

## [1] 227  10

#subsetting the dataset
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

library(lattice)
#View five rows of df
head(df)

##          Country Population    Area Literacy Climate Birthrate
Deathrate
## 1    Afghanistan   31056997  647500     36,0       1      46,6
20,34
## 2        Albania    3581655   28748     86,5       3     15,11
5,22
## 3        Algeria   32930091 2381740     70,0       1     17,14
4,61
## 4 American Samoa      57794     199     97,0       2     22,46
3,27
## 5        Andorra      71201     468    100,0       3      8,71
6,25
## 6         Angola   12127071 1246700     42,0            45,11
24,2
##   Agriculture Industry Service
## 1        0,38     0,24    0,38
## 2       0,232    0,188   0,579
## 3       0,101      0,6   0,298
## 4
## 5
## 6       0,096    0,658   0,246

#filter the data 5
head(df)

##          Country Population    Area Literacy Climate Birthrate
Deathrate
## 1    Afghanistan   31056997  647500     36,0       1      46,6
20,34
## 2        Albania    3581655   28748     86,5       3     15,11
5,22
## 3        Algeria   32930091 2381740     70,0       1     17,14
4,61
## 4 American Samoa      57794     199     97,0       2     22,46
3,27
## 5        Andorra      71201     468    100,0       3      8,71
6,25
## 6         Angola   12127071 1246700     42,0            45,11
24,2
##   Agriculture Industry Service
## 1        0,38     0,24    0,38
## 2       0,232    0,188   0,579
## 3       0,101      0,6   0,298
```

```
## 4
## 5
## 6       0,096    0,658   0,246
```

```
tail(df)
```

```
##               Country Population   Area Literacy Climate
Birthrate Deathrate
## 222 Wallis and Futuna      16025    274     50,0       2
## 223         West Bank    2460492   5860                3
31,67      3,92
## 224    Western Sahara     273008 266000                1
## 225             Yemen   21456188 527970     50,2       1
42,89       8,3
## 226            Zambia   11502010 752614     80,6       2
41     19,93
## 227          Zimbabwe   12236805 390580     90,7       2
28,01     21,84
##     Agriculture Industry Service
## 222
## 223        0,09     0,28    0,63
## 224                         0,4
## 225       0,135    0,472   0,393
## 226        0,22     0,29   0,489
## 227       0,179    0,243   0,579
```

```
#remove the null values
na.omit(df)
```

```
##                            Country Population     Area Literacy
Climate
## 1                      Afghanistan   31056997   647500     36,0
1
## 2                          Albania    3581655    28748     86,5
3
## 3                          Algeria   32930091  2381740     70,0
1
## 4                   American Samoa      57794      199     97,0
2
## 5                          Andorra      71201      468    100,0
3
## 6                           Angola   12127071  1246700     42,0
## 7                         Anguilla      13477      102     95,0
2
## 8                 Antigua & Barbuda      69108      443     89,0
2
## 9                        Argentina   39921833  2766890     97,1
3
## 10                         Armenia    2976372    29800     98,6
4
## 11                           Aruba      71891      193     97,0
2
## 12                       Australia   20264082  7686850    100,0
1
## 13                         Austria    8192880    83870     98,0
```

```
3
## 14                        Azerbaijan    7961619    86600     97,0
1
## 15                      Bahamas, The     303770    13940     95,6
2
## 16                           Bahrain     698585      665     89,1
1
## 17                        Bangladesh  147365352   144000     43,1
2
## 18                          Barbados     279912      431     97,4
2
## 19                           Belarus   10293011   207600     99,6
4
## 20                           Belgium   10379067    30528     98,0
3
## 21                            Belize     287730    22966     94,1
2
## 22                             Benin    7862944   112620     40,9
2
## 23                           Bermuda      65773       53     98,0
2
## 24                            Bhutan    2279723    47000     42,2
2
## 25                           Bolivia    8989046  1098580     87,2
1,5
## 26             Bosnia & Herzegovina    4498976    51129
4
## 27                          Botswana    1639833   600370     79,8
1
## 28                            Brazil  188078227  8511965     86,4
2
## 29               British Virgin Is.      23098      153     97,8
2
## 30                            Brunei     379444     5770     93,9
2
## 31                          Bulgaria    7385367   110910     98,6
3
## 32                      Burkina Faso   13902972   274200     26,6
2
## 33                             Burma   47382633   678500     85,3
2
## 34                           Burundi    8090068    27830     51,6
2
## 35                          Cambodia   13881427   181040     69,4
2
## 36                          Cameroon   17340702   475440     79,0
1,5
## 37                            Canada   33098932  9984670     97,0
## 38                        Cape Verde     420979     4033     76,6
3
## 39                     Cayman Islands      45436      262     98,0
2
## 40               Central African Rep.    4303356   622984     51,0
2
```

```
## 41                              Chad    9944201  1284000     47,5
2
## 42                             Chile   16134219   756950     96,2
3
## 43                             China 1313973713  9596960     90,9
1,5
## 44                          Colombia   43593035  1138910     92,5
2
## 45                           Comoros     690948     2170     56,5
2
## 46                 Congo, Dem. Rep.   62660551  2345410     65,5
2
## 47              Congo, Repub. of the    3702314   342000     83,8
2
## 48                       Cook Islands      21388      240     95,0
2
## 49                         Costa Rica    4075261    51100     96,0
2
## 50                      Cote d'Ivoire   17654843   322460     50,9
2
## 51                            Croatia    4494749    56542     98,5
## 52                               Cuba   11382820   110860     97,0
2
## 53                             Cyprus     784301     9250     97,6
3
## 54                     Czech Republic   10235455    78866     99,9
3
## 55                            Denmark    5450661    43094    100,0
3
## 56                           Djibouti     486530    23000     67,9
1
## 57                           Dominica      68910      754     94,0
2
## 58                 Dominican Republic    9183984    48730     84,7
2
## 59                          East Timor    1062777    15007     58,6
2
## 60                             Ecuador   13547510   283560     92,5
2
## 61                               Egypt   78887007  1001450     57,7
1
## 62                         El Salvador    6822378    21040     80,2
2
## 63                   Equatorial Guinea     540109    28051     85,7
2
## 64                             Eritrea    4786994   121320     58,6
1,5
## 65                             Estonia    1324333    45226     99,8
3
## 66                            Ethiopia   74777981  1127127     42,7
2
## 67                      Faroe Islands      47246     1399
## 68                                Fiji     905949    18270     93,7
2
```

```
## 69                          Finland    5231372   338145    100,0
3
## 70                           France   60876136   547030     99,0
4
## 71                     French Guiana     199509    91000     83,0
2
## 72                  French Polynesia     274578     4167     98,0
2
## 73                            Gabon    1424906   267667     63,2
2
## 74                      Gambia, The    1641564    11300     40,1
2
## 75                       Gaza Strip    1428757      360
3
## 76                          Georgia    4661473    69700     99,0
3
## 77                          Germany   82422299   357021     99,0
3
## 78                            Ghana   22409572   239460     74,8
2
## 79                        Gibraltar      27928        7
## 80                           Greece   10688058   131940     97,5
3
## 81                        Greenland      56361  2166086
1
## 82                          Grenada      89703      344     98,0
2
## 83                       Guadeloupe     452776     1780     90,0
2
## 84                             Guam     171019      541     99,0
2
## 85                        Guatemala   12293545   108890     70,6
2
## 86                         Guernsey      65409       78
3
## 87                           Guinea    9690222   245857     35,9
2
## 88                    Guinea-Bissau    1442029    36120     42,4
2
## 89                           Guyana     767245   214970     98,8
2
## 90                            Haiti    8308504    27750     52,9
2
## 91                         Honduras    7326496   112090     76,2
2
## 92                        Hong Kong    6940432     1092     93,5
2
## 93                          Hungary    9981334    93030     99,4
3
## 94                          Iceland     299388   103000     99,9
3
## 95                            India 1095351995  3287590     59,5
2,5
## 96                        Indonesia  245452739  1919440     87,9
```

```
2
## 97                              Iran   68688433  1648000     79,4
1
## 98                              Iraq   26783383   437072     40,4
1
## 99                           Ireland    4062235    70280     98,0
3
## 100                     Isle of Man      75441      572
3
## 101                           Israel    6352117    20770     95,4
3
## 102                            Italy   58133509   301230     98,6
## 103                          Jamaica    2758124    10991     87,9
2
## 104                            Japan  127463611   377835     99,0
3
## 105                           Jersey      91084      116
3
## 106                           Jordan    5906760    92300     91,3
1
## 107                       Kazakhstan   15233244  2717300     98,4
4
## 108                            Kenya   34707817   582650     85,1
1,5
## 109                         Kiribati     105432      811
2
## 110                      Korea, North   23113019   120540     99,0
3
## 111                      Korea, South   48846823    98480     97,9
3
## 112                            Kuwait    2418393    17820     83,5
1
## 113                         Kyrgyzstan    5213898   198500     97,0
2,5
## 114                              Laos    6368481   236800     66,4
2
## 115                            Latvia    2274735    64589     99,8
3
## 116                           Lebanon    3874050    10400     87,4
## 117                           Lesotho    2022331    30355     84,8
3
## 118                           Liberia    3042004   111370     57,5
2
## 119                             Libya    5900754  1759540     82,6
## 120                     Liechtenstein      33987      160    100,0
4
## 121                         Lithuania    3585906    65200     99,6
## 122                        Luxembourg     474413     2586    100,0
## 123                             Macau     453125       28     94,5
2
## 124                          Macedonia    2050554    25333
3
## 125                        Madagascar   18595469   587040     68,9
2
```

```
## 126                          Malawi   13013926   118480     62,7
2
## 127                        Malaysia   24385858   329750     88,7
2
## 128                        Maldives     359008      300     97,2
2
## 129                            Mali   11716829  1240000     46,4
2
## 130                           Malta     400214      316     92,8
## 131               Marshall Islands      60422    11854     93,7
2
## 132                      Martinique     436131     1100     97,7
2
## 133                      Mauritania    3177388  1030700     41,7
1
## 134                       Mauritius    1240827     2040     85,6
2
## 135                         Mayotte     201234      374
2
## 136                          Mexico  107449525  1972550     92,2
1,5
## 137            Micronesia, Fed. St.     108004      702     89,0
2
## 138                         Moldova    4466706    33843     99,1
## 139                          Monaco      32543        2     99,0
## 140                        Mongolia    2832224  1564116     97,8
1
## 141                      Montserrat       9439      102     97,0
2
## 142                         Morocco   33241259   446550     51,7
## 143                      Mozambique   19686505   801590     47,8
2
## 144                         Namibia    2044147   825418     84,0
1
## 145                           Nauru      13287       21
2
## 146                           Nepal   28287147   147181     45,2
## 147                     Netherlands   16491461    41526     99,0
3
## 148            Netherlands Antilles     221736      960     96,7
2
## 149                   New Caledonia     219246    19060     91,0
2
## 150                     New Zealand    4076140   268680     99,0
3
## 151                       Nicaragua    5570129   129494     67,5
2
## 152                           Niger   12525094  1267000     17,6
1
## 153                         Nigeria  131859731   923768     68,0
1,5
## 154             N. Mariana Islands      82459      477     97,0
2
## 155                          Norway    4610820   323802    100,0
```

```
3
## 156                             Oman    3102229   212460     75,8
1
## 157                         Pakistan  165803560   803940     45,7
1
## 158                            Palau      20579      458     92,0
2
## 159                           Panama    3191319    78200     92,6
2
## 160                 Papua New Guinea    5670544   462840     64,6
2
## 161                         Paraguay    6506464   406750     94,0
2
## 162                             Peru   28302603  1285220     90,9
1,5
## 163                      Philippines   89468677   300000     92,6
2
## 164                           Poland   38536869   312685     99,8
3
## 165                         Portugal   10605870    92391     93,3
3
## 166                      Puerto Rico    3927188    13790     94,1
2
## 167                            Qatar     885359    11437     82,5
1
## 168                           Reunion     787584     2517     88,9
2
## 169                           Romania   22303552   237500     98,4
3
## 170                            Russia  142893540 17075200     99,6
## 171                            Rwanda    8648248    26338     70,4
3
## 172                      Saint Helena       7502      413     97,0
## 173               Saint Kitts & Nevis      39129      261     97,0
2
## 174                       Saint Lucia     168458      616     67,0
2
## 175               St Pierre & Miquelon       7026      242     99,0
## 176 Saint Vincent and the Grenadines     117848      389     96,0
2
## 177                             Samoa     176908     2944     99,7
2
## 178                        San Marino      29251       61     96,0
## 179               Sao Tome & Principe     193413     1001     79,3
2
## 180                      Saudi Arabia   27019731  1960582     78,8
1
## 181                           Senegal   11987121   196190     40,2
2
## 182                            Serbia    9396411    88361     93,0
## 183                        Seychelles      81541      455     58,0
2
## 184                      Sierra Leone    6005250    71740     31,4
2
```

```
## 185                      Singapore    4492150      693     92,5
2
## 186                       Slovakia    5439448    48845
3
## 187                       Slovenia    2010347    20273     99,7
## 188                Solomon Islands     552438    28450
2
## 189                        Somalia    8863338   637657     37,8
1
## 190                   South Africa   44187637  1219912     86,4
1
## 191                          Spain   40397842   504782     97,9
3
## 192                      Sri Lanka   20222240    65610     92,3
2
## 193                          Sudan   41236378  2505810     61,1
2
## 194                       Suriname     439117   163270     93,0
2
## 195                      Swaziland    1136334    17363     81,6
2,5
## 196                         Sweden    9016596   449964     99,0
3
## 197                    Switzerland    7523934    41290     99,0
3
## 198                          Syria   18881361   185180     76,9
1
## 199                         Taiwan   23036087    35980     96,1
2
## 200                     Tajikistan    7320815   143100     99,4
2
## 201                       Tanzania   37445392   945087     78,2
## 202                       Thailand   64631595   514000     92,6
2
## 203                           Togo    5548702    56785     60,9
2
## 204                          Tonga     114689      748     98,5
2
## 205              Trinidad & Tobago    1065842     5128     98,6
2
## 206                        Tunisia   10175014   163610     74,2
3
## 207                         Turkey   70413958   780580     86,5
3
## 208                     Turkmenistan    5042920   488100     98,0
1
## 209              Turks & Caicos Is      21152      430     98,0
2
## 210                         Tuvalu      11810       26
2
## 211                         Uganda   28195754   236040     69,9
2
## 212                         Ukraine   46710816   603700     99,7
3
```

```
## 213              United Arab Emirates    2602713    82880      77,9
1
## 214                   United Kingdom   60609153   244820      99,0
3
## 215                               US  298444215  9631420      97,0
3
## 216                          Uruguay    3431932   176220      98,0
3
## 217                       Uzbekistan   27307134   447400      99,3
1
## 218                          Vanuatu     208869    12200      53,0
2
## 219                        Venezuela   25730435   912050      93,4
2
## 220                          Vietnam   84402966   329560      90,3
2
## 221                   Virgin Islands     108605     1910
2
## 222                Wallis and Futuna      16025      274      50,0
2
## 223                        West Bank    2460492     5860
3
## 224                   Western Sahara     273008   266000
1
## 225                            Yemen   21456188   527970      50,2
1
## 226                           Zambia   11502010   752614      80,6
2
## 227                         Zimbabwe   12236805   390580      90,7
2
##     Birthrate Deathrate Agriculture Industry Service
## 1        46,6     20,34        0,38     0,24    0,38
## 2       15,11      5,22       0,232    0,188   0,579
## 3       17,14      4,61       0,101      0,6   0,298
## 4       22,46      3,27
## 5        8,71      6,25
## 6       45,11      24,2       0,096    0,658   0,246
## 7       14,17      5,34        0,04     0,18    0,78
## 8       16,93      5,37       0,038     0,22   0,743
## 9       16,73      7,55       0,095    0,358   0,547
## 10      12,07      8,23       0,239    0,343   0,418
## 11      11,03      6,68       0,004    0,333   0,663
## 12      12,14      7,51       0,038    0,262     0,7
## 13       8,74      9,76       0,018    0,304   0,678
## 14      20,74      9,75       0,141    0,457   0,402
## 15      17,57      9,05        0,03     0,07     0,9
## 16       17,8      4,14       0,005    0,387   0,608
## 17       29,8      8,27       0,199    0,198   0,603
## 18      12,71      8,67        0,06     0,16    0,78
## 19      11,16     14,02       0,093    0,316   0,591
## 20      10,38     10,27        0,01     0,24   0,749
## 21      28,84      5,72       0,142    0,152   0,612
## 22      38,85     12,22       0,316    0,138   0,546
## 23       11,4      7,74        0,01      0,1    0,89
```

```
## 24      33,65      12,7       0,258    0,379   0,363
## 25       23,3      7,53       0,128    0,352    0,52
## 26       8,77      8,27       0,142    0,308    0,55
## 27      23,08      29,5       0,024    0,469   0,507
## 28      16,56      6,17       0,084      0,4   0,516
## 29      14,89      4,42       0,018    0,062    0,92
## 30      18,79      3,45       0,036    0,561   0,403
## 31       9,65     14,27       0,093    0,304   0,603
## 32      45,62      15,6       0,322    0,196   0,482
## 33      17,91      9,83       0,564    0,082   0,353
## 34      42,22     13,46       0,463    0,203   0,334
## 35       26,9      9,06        0,35      0,3    0,35
## 36      33,89     13,47       0,448     0,17   0,382
## 37      10,78       7,8       0,022    0,294   0,684
## 38      24,87      6,55       0,121    0,219    0,66
## 39      12,74      4,89       0,014    0,032   0,954
## 40      33,91     18,65        0,55      0,2    0,25
## 41      45,73     16,38       0,335    0,259   0,406
## 42      15,23      5,81        0,06    0,493   0,447
## 43      13,25      6,97       0,125    0,473   0,403
## 44      20,48      5,58       0,125    0,342   0,533
## 45      36,93       8,2         0,4     0,04    0,56
## 46      43,69     13,27        0,55     0,11    0,34
## 47      42,57     12,93       0,062     0,57   0,369
## 48         21                 0,151    0,096   0,753
## 49      18,32      4,36       0,088    0,299   0,614
## 50      35,11     14,84       0,279    0,171    0,55
## 51       9,61     11,48        0,07    0,308   0,622
## 52      11,89      7,22       0,055    0,261   0,684
## 53      12,56      7,68       0,037    0,198   0,765
## 54       9,02     10,59       0,034    0,393   0,573
## 55      11,13     10,36       0,018    0,246   0,735
## 56      39,53     19,31       0,179    0,225   0,596
## 57      15,27      6,73       0,177    0,328   0,495
## 58      23,22      5,73       0,112    0,306   0,582
## 59      26,99      6,24       0,085    0,231   0,684
## 60      22,29      4,23        0,07    0,312   0,618
## 61      22,94      5,23       0,149    0,357   0,493
## 62      26,61      5,78       0,099    0,302   0,599
## 63      35,59     15,06        0,03    0,906   0,062
## 64      34,33       9,6       0,102    0,254   0,643
## 65      10,04     13,25        0,04    0,294   0,666
## 66      37,98     14,86       0,475    0,099   0,426
## 67      14,05       8,7        0,27     0,11    0,62
## 68      22,55      5,65       0,089    0,135   0,776
## 69      10,45      9,86       0,028    0,295   0,676
## 70      11,99      9,14       0,022    0,214   0,764
## 71      20,46      4,88       0,066    0,156   0,778
## 72      16,68      4,69       0,031     0,19   0,769
## 73      36,16     12,25       0,061    0,592   0,348
## 74      39,37     12,25       0,308    0,142   0,549
## 75      39,45       3,8        0,03    0,283   0,687
## 76      10,41      9,23       0,172    0,275   0,553
## 77       8,25     10,62       0,009    0,296   0,695
```

```
## 78      30,52      9,72       0,366    0,246   0,387
## 79      10,74      9,31
## 80       9,68     10,24       0,054    0,213   0,733
## 81      15,93      7,84
## 82      22,08      6,88       0,054     0,18   0,766
## 83      15,05      6,09        0,15     0,17    0,68
## 84      18,79      4,48
## 85      29,88       5,2       0,227    0,188   0,585
## 86       8,81     10,01        0,03      0,1    0,87
## 87      41,76     15,48       0,237    0,362   0,401
## 88      37,22     16,53        0,62     0,12    0,26
## 89      18,28      8,28        0,37    0,203   0,427
## 90      36,44     12,17        0,28      0,2    0,52
## 91      28,24      5,28       0,139    0,312   0,549
## 92       7,29      6,29       0,001    0,092   0,906
## 93       9,72     13,11       0,037    0,312   0,651
## 94      13,64      6,72       0,086     0,15   0,765
## 95      22,01      8,18       0,186    0,276   0,538
## 96      20,34      6,25       0,134    0,458   0,408
## 97         17      5,55       0,116    0,424    0,46
## 98      31,98      5,37       0,073    0,666   0,261
## 99      14,45      7,82        0,05     0,46    0,49
## 100     11,05     11,19        0,01     0,13    0,86
## 101     17,97      6,18       0,026    0,317   0,657
## 102      8,72      10,4       0,021    0,291   0,688
## 103     20,82      6,52       0,049    0,337   0,615
## 104      9,37      9,16       0,017    0,258   0,725
## 105       9,3      9,28        0,05     0,02    0,93
## 106     21,25      2,65       0,033    0,287    0,68
## 107        16      9,42       0,067    0,386   0,547
## 108     39,72     14,02       0,163    0,188   0,651
## 109     30,65      8,26       0,089    0,242   0,668
## 110     15,54      7,13         0,3     0,34    0,36
## 111        10      5,85       0,033    0,403   0,563
## 112     21,94      2,41       0,004    0,479   0,516
## 113      22,8      7,08       0,353    0,208   0,439
## 114     35,49     11,55       0,455    0,287   0,258
## 115      9,24     13,66        0,04    0,261   0,699
## 116     18,52      6,21        0,12     0,21    0,67
## 117     24,75     28,71       0,163    0,443   0,394
## 118     44,77      23,1       0,769    0,054   0,177
## 119     26,49      3,48       0,076    0,499   0,425
## 120     10,21      7,18        0,06     0,39    0,55
## 121      8,75     10,98       0,055    0,325    0,62
## 122     11,94      8,41        0,01     0,13    0,86
## 123      8,48      4,47       0,001    0,072   0,927
## 124     12,02      8,77       0,118    0,319   0,563
## 125     41,41     11,11       0,276    0,165   0,559
## 126     43,13     19,33       0,342    0,158   0,499
## 127     22,86      5,05       0,084     0,48   0,436
## 128     34,81      7,06         0,2     0,18    0,62
## 129     49,82     16,89        0,45     0,17    0,38
## 130     10,22       8,1        0,03     0,23    0,74
## 131     33,05      4,78       0,317    0,149   0,534
```

```
## 132     13,74      6,48        0,06     0,11    0,83
## 133     40,99     12,16        0,25     0,29    0,46
## 134     15,43      6,86       0,059    0,298   0,643
## 135     40,95       7,7
## 136     20,69      4,74       0,038    0,259   0,702
## 137     24,68      4,75       0,289    0,152   0,559
## 138      15,7     12,64       0,213    0,233   0,555
## 139      9,19     12,91        0,17
## 140     21,59      6,95       0,206    0,214    0,58
## 141     17,59       7,1
## 142     21,98      5,58       0,217    0,357   0,426
## 143     35,18     21,35       0,262    0,348    0,39
## 144     24,32     18,86       0,097    0,315   0,588
## 145     24,76       6,7
## 146     30,98      9,31        0,38     0,21    0,41
## 147      10,9      8,68       0,021    0,244   0,736
## 148     14,78      6,45        0,01     0,15    0,84
## 149     18,11      5,69        0,15    0,088   0,762
## 150     13,76      7,53       0,043    0,273   0,684
## 151     24,51      4,45       0,165    0,275    0,56
## 152     50,73     20,91        0,39     0,17    0,44
## 153     40,43     16,94       0,269    0,487   0,244
## 154     19,43      2,29
## 155     11,46       9,4       0,021    0,415   0,564
## 156     36,24      3,81       0,027     0,39   0,583
## 157     29,74      8,23       0,216    0,251   0,533
## 158     18,03       6,8       0,062     0,12   0,818
## 159     21,74      5,36       0,068    0,156   0,776
## 160     29,36      7,25       0,353    0,381   0,266
## 161      29,1      4,49       0,224    0,207   0,569
## 162     20,48      6,23        0,08     0,27    0,65
## 163     24,89      5,41       0,144    0,326    0,53
## 164      9,85      9,89        0,05    0,311    0,64
## 165     10,72      10,5       0,053    0,274   0,673
## 166     12,77      7,65        0,01     0,45    0,54
## 167     15,56      4,72       0,002    0,801   0,197
## 168      18,9      5,49        0,08     0,19    0,73
## 169      10,7     11,77       0,101     0,35   0,549
## 170      9,95     14,65       0,054    0,371   0,575
## 171     40,37     16,09       0,401    0,229    0,37
## 172     12,13      6,53
## 173     18,02      8,33       0,035    0,258   0,707
## 174     19,68      5,08        0,07      0,2    0,73
## 175     13,52      6,83
## 176     16,18      5,98         0,1     0,26    0,64
## 177     16,43      6,62       0,114    0,584   0,302
## 178     10,02      8,17
## 179     40,25      6,47       0,167    0,148   0,684
## 180     29,34      2,58       0,033    0,613   0,354
## 181     32,78      9,42       0,172    0,209   0,619
## 182                           0,166    0,255   0,579
## 183     16,03      6,29       0,032    0,304   0,665
## 184     45,76     23,03        0,49     0,31    0,21
## 185      9,34      4,28           0    0,339   0,661
```

```
## 186     10,65      9,45       0,035    0,294   0,672
## 187      8,98     10,31       0,028    0,369   0,603
## 188     30,01      3,92        0,42     0,11    0,47
## 189     45,13     16,63        0,65      0,1    0,25
## 190      18,2        22       0,025    0,303   0,671
## 191     10,06      9,72        0,04    0,295   0,665
## 192     15,51      6,52       0,178    0,276   0,545
## 193     34,53      8,97       0,387    0,203    0,41
## 194     18,02      7,27        0,13     0,22    0,65
## 195     27,41     29,74       0,119    0,515   0,366
## 196     10,27     10,31       0,011    0,282   0,707
## 197      9,71      8,49       0,015     0,34   0,645
## 198     27,76      4,81       0,249     0,23   0,519
## 199     12,56      6,48       0,018    0,259   0,723
## 200     32,65      8,25       0,234    0,286    0,48
## 201     37,71     16,39       0,432    0,172   0,396
## 202     13,87      7,04       0,099    0,441    0,46
## 203     37,01      9,83       0,395    0,204   0,401
## 204     25,37      5,28        0,23     0,27     0,5
## 205      12,9     10,57       0,007     0,57   0,423
## 206     15,52      5,13       0,132    0,318    0,55
## 207     16,62      5,97       0,117    0,298   0,585
## 208     27,61       8,6       0,209     0,38   0,411
## 209     21,84      4,21
## 210     22,18      7,11       0,166    0,272   0,562
## 211     47,35     12,24       0,311    0,222   0,469
## 212      8,82     14,39       0,187    0,452   0,361
## 213     18,96       4,4        0,04    0,585   0,375
## 214     10,71     10,13       0,005    0,237   0,758
## 215     14,14      8,26        0,01    0,204   0,787
## 216     13,91      9,05       0,093    0,311   0,596
## 217     26,36      7,84       0,342    0,229    0,43
## 218     22,72      7,82        0,26     0,12    0,62
## 219     18,71      4,92        0,04    0,419   0,541
## 220     16,86      6,22       0,209     0,41   0,381
## 221     13,96      6,43        0,01     0,19     0,8
## 222
## 223     31,67      3,92        0,09     0,28    0,63
## 224                                             0,4
## 225     42,89       8,3       0,135    0,472   0,393
## 226        41     19,93        0,22     0,29   0,489
## 227     28,01     21,84       0,179    0,243   0,579
```

```
library(lattice)
#histogram
histogram(~Climate|Agriculture,data=df)
```

```
## Warning in extend.limits(range(as.numeric(x), finite = TRUE),
prop = 0.04): NAs
## introduced by coercion
```

```
## Warning in hist(as.numeric(x), breaks = breaks, plot = FALSE,
include.lowest =
## include.lowest, : NAs introduced by coercion
```

```
## Warning in hist(as.numeric(x), breaks = breaks, plot = FALSE,
include.lowest =
## include.lowest, : NAs introduced by coercion

## Warning in hist(as.numeric(x), breaks = breaks, plot = FALSE,
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```

```
## Warning in hist(as.numeric(x), breaks = breaks, plot = FALSE,
include.lowest =
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## Warning in hist(as.numeric(x), breaks = breaks, plot = FALSE,
include.lowest =
## include.lowest, : NAs introduced by coercion

## Warning in hist(as.numeric(x), breaks = breaks, plot = FALSE,
include.lowest =
## include.lowest, : NAs introduced by coercion

## Warning in hist(as.numeric(x), breaks = breaks, plot = FALSE,
include.lowest =
## include.lowest, : NAs introduced by coercion
```
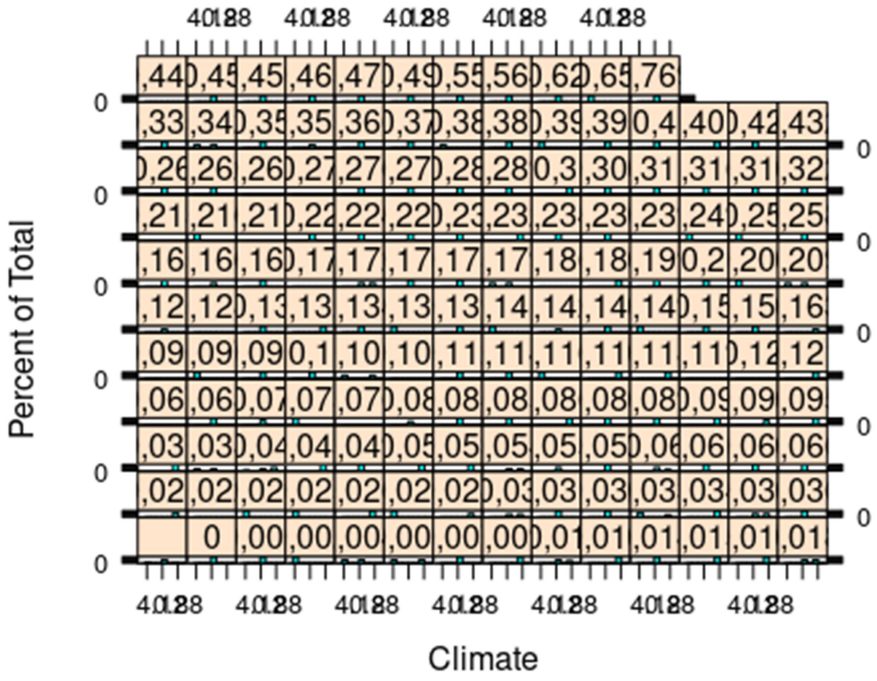
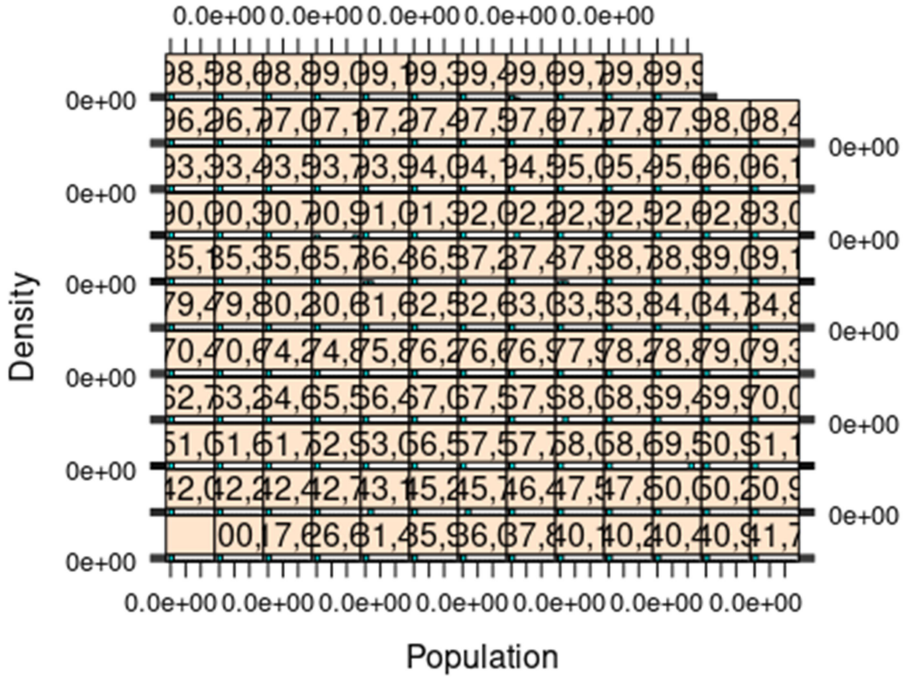
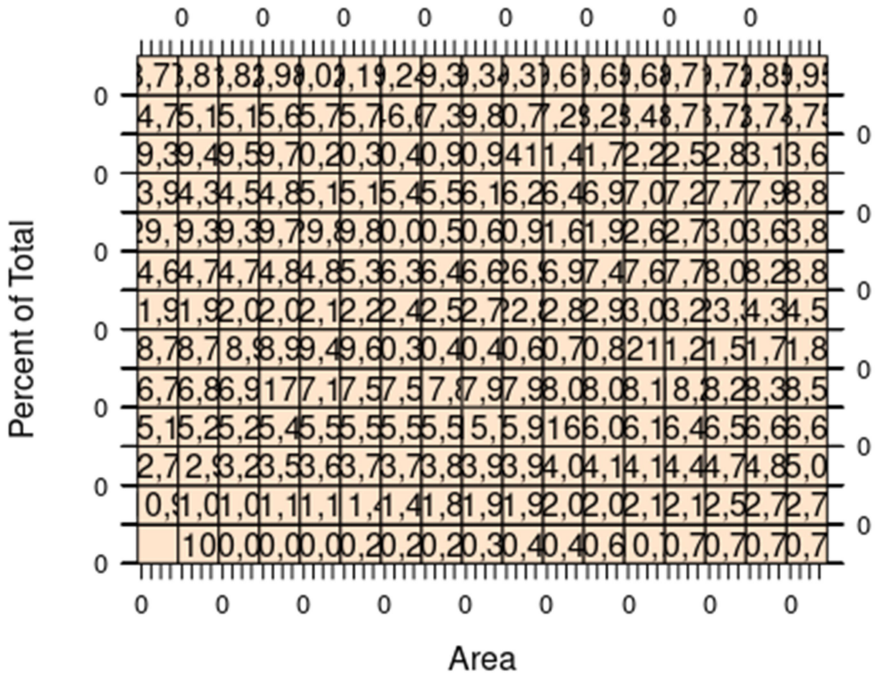




```
attach(df)
histogram(~Population|Literacy,data=df)
```

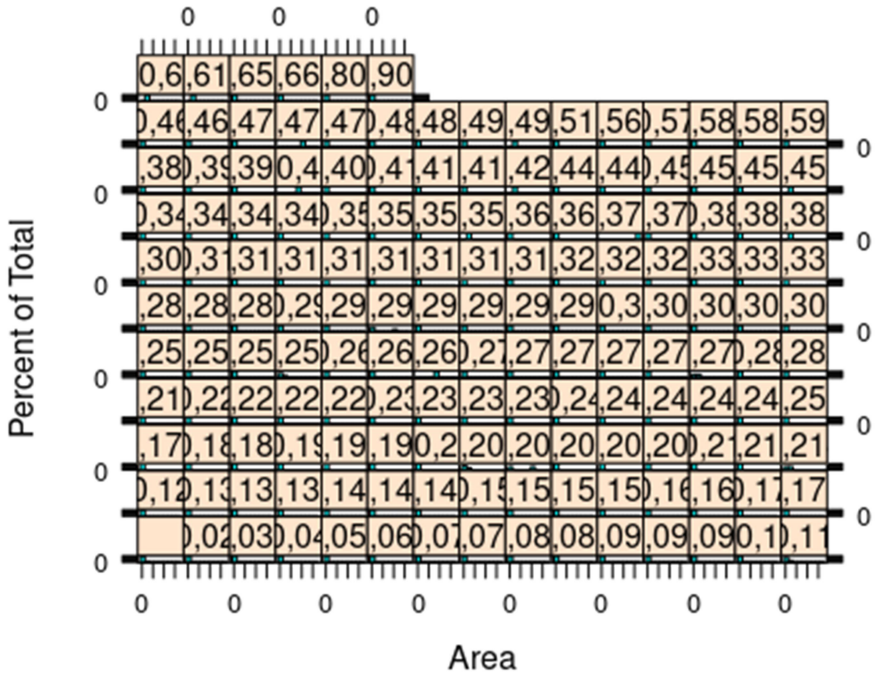



```
attach(df)

## The following objects are masked from df (pos = 3):
##
```

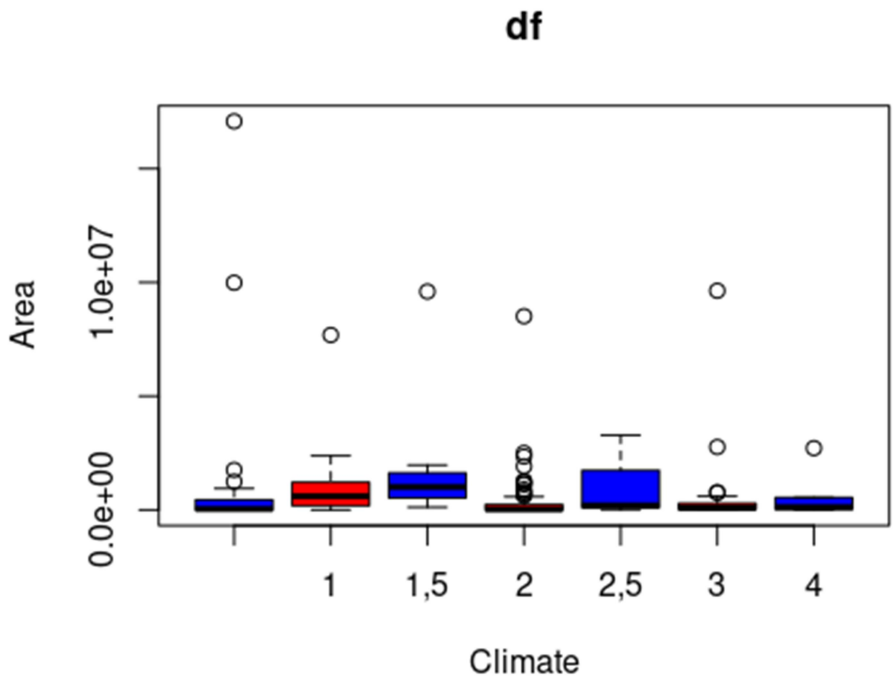
```
##     Agriculture, Area, Birthrate, Climate, Country, Deathrate,
##     Industry, Literacy, Population, Service

histogram(~Area|Birthrate,data=df)
```



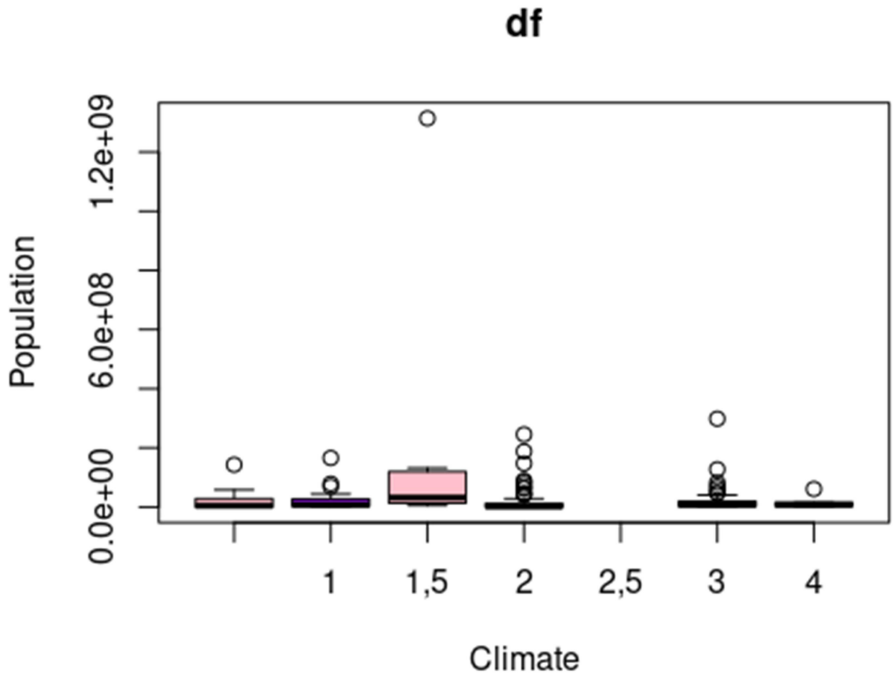

```
histogram(~Area|Industry,data=df)
```



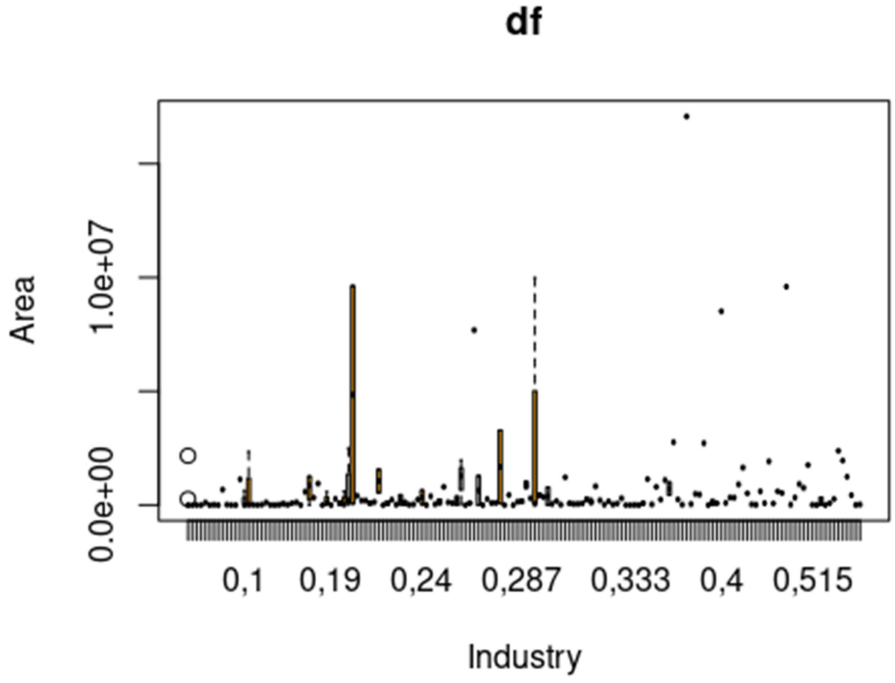
```
hist1 = histogram(~Area|Climate,df,col = "green",breaks = 20)

#boxplot
boxplot(Area~Climate,data=df,breaks=20,col=c('blue','red'),main='df'
)
```




```
boxplot(Population~Climate,data=df,breaks=50,col=c('pink','purple'),
main='df')

## Warning in x[floor(d)] + x[ceiling(d)]: NAs produced by integer
overflow

## Warning in x[floor(d)] + x[ceiling(d)]: NAs produced by integer
overflow
```




```
boxplot(Area~Industry,data=df,breaks=80,col=c('orange','grey'),main=
'df')
```




```
#scatterplot
xyplot(Area~Population,main='Area~Population wise
```

```
analysis',xlab='Area',yplot='Population',df)
```

Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.

Assumption:

I assumed that according to the Climate, Agriculture changes.

Then assumed how many iteracy people are there in a population.

In a country, for a particular area, there are how many birthrate .

Then, in a particular area, there are how many Industries.

Hypotheses:

In this dataset, there is a correlation between the climate and Agriculture. And there is a correlation between Population and Literacy.

There are more literacy in a population.So, there are doing Agriculture.

So in a particular area, there are more literacy people. And this can be analyzed by Histogram. There are more Industries, but the services are low due to literacy.

Insights:

From the dataset, due to more literacy in a population there are doing Agriculture. Birthrate is high in some Area .So there are many literacy.

Agriculture changes according to the Climate.

Eventhough, there are many Industries, the service is very few.

This happens due to literacy.

Inference:

From the dataset, There are many countries, in which some Areas there are more literacy in a population, due to high birthrate. Birthrate is equal to the Deathrate. Agriculture also make them change according to the Climatic change. Eventhough, many Industries in some Areas, the Service level is low.