Kuis\_DS\_D

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##Intro ##Baca Petunjuk Terlebih Dahulu!

1. Kerjakan soal-soal yang ada! Jangan lupa tulis NAMA dan NIM pada author!
2. Kuis terdiri dari 2 bagian yaitu bagian pertama dan bagian kedua
3. Jawablah dengan mengisi chunk dibawah soal!
4. Durasi pengerjaan sesuai selama 12 jam, dikumpulkan maksimal Jum’at, 29 Oktober 2021 pukul 21.00 WIB
5. No toleransi pengumpulan telat. Ingat, telat kemungkinan terburuk ga ada nilai kuis!
6. Misal soal rancu bisa menghubungi asisten terkait
7. Export hasil pekerjaan dalam format PDF/Word & sesuaikan nama file sesuai NIM masing-masing.

##BAGIAN PERTAMA

1. Load library apa saja yang kira-kira digunakan! Lalu gunakan data ‘us\_contagious\_diseases’! **point 1**

library(dslabs)  
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

data(us\_contagious\_diseases)

1. Tampilkan semua nama kolom pada data frame yang ada! **point 5**

names(us\_contagious\_diseases)

## [1] "disease" "state" "year" "weeks\_reporting"  
## [5] "count" "population"

1. Tampilkan tipe data pada kolom penyakit! **point 5**

class(us\_contagious\_diseases$disease)

## [1] "factor"

1. Tampilkan 10 data penyakit rubella teratas diurutkan berdasarkan jumlah kasusnya dan terjadi pada antara tahun 2000 dan 2005! **point 11**

rubella=us\_contagious\_diseases[which(us\_contagious\_diseases$disease == "Rubella"),]  
datax=rubella[which(rubella$year>=2000&rubella$year<=2005),]  
x<-arrange(.data=datax, -count)  
head(x,10)

## disease state year weeks\_reporting count population  
## 1 Rubella North Carolina 2000 36 82 8049313  
## 2 Rubella South Carolina 2000 40 14 4012012  
## 3 Rubella California 2000 32 11 33871648  
## 4 Rubella Massachusetts 2000 39 6 6349097  
## 5 Rubella Texas 2000 34 5 20851820  
## 6 Rubella Florida 2001 32 4 16272186  
## 7 Rubella Alabama 2000 37 3 4447100  
## 8 Rubella Illinois 2001 46 3 12501805  
## 9 Rubella California 2002 29 2 34529758  
## 10 Rubella Florida 2000 33 2 15982378

1. Klasifikasikan data tersebut berdasarkan jumlah kasusnya dengan kondisi : -jumlah kasus kurang dari 500 dikategorikan sebagai “Biasa” -jumlah kasus lebih dari 2000 dikategorikan sebagai “Azab -jumlah kasus antara kedua kondisi diatas dikategorikan sebagai”Cobaan"

NB : jika dirasa jumlah data hasilnya terlalu banyak boleh menggunakan fungsi top\_n() atau head()**point 10**

df1<-mutate(us\_contagious\_diseases, category=case\_when(count<500~"Biasa",count>2000~"Azab",TRUE~"Cobaan"))  
head(df1,10)

## disease state year weeks\_reporting count population category  
## 1 Hepatitis A Alabama 1966 50 321 3345787 Biasa  
## 2 Hepatitis A Alabama 1967 49 291 3364130 Biasa  
## 3 Hepatitis A Alabama 1968 52 314 3386068 Biasa  
## 4 Hepatitis A Alabama 1969 49 380 3412450 Biasa  
## 5 Hepatitis A Alabama 1970 51 413 3444165 Biasa  
## 6 Hepatitis A Alabama 1971 51 378 3481798 Biasa  
## 7 Hepatitis A Alabama 1972 45 342 3524543 Biasa  
## 8 Hepatitis A Alabama 1973 45 467 3571209 Biasa  
## 9 Hepatitis A Alabama 1974 45 244 3620548 Biasa  
## 10 Hepatitis A Alabama 1975 46 286 3671246 Biasa

1. Tambahkan variabel baru berisi data ‘us\_contagious\_diseases’ dengan tambahan kolom baru dengan nama “category” yang isinya merupakan implementasi nomor 5 dan kolom “rate” yang isinya merupakan hasil bagi jumlah kasus dengan populasi dikalikan 100000! **point 10**

df2<-mutate(df1, rate=count/population\*100000)  
head(df2,10)

## disease state year weeks\_reporting count population category rate  
## 1 Hepatitis A Alabama 1966 50 321 3345787 Biasa 9.594155  
## 2 Hepatitis A Alabama 1967 49 291 3364130 Biasa 8.650082  
## 3 Hepatitis A Alabama 1968 52 314 3386068 Biasa 9.273293  
## 4 Hepatitis A Alabama 1969 49 380 3412450 Biasa 11.135694  
## 5 Hepatitis A Alabama 1970 51 413 3444165 Biasa 11.991295  
## 6 Hepatitis A Alabama 1971 51 378 3481798 Biasa 10.856460  
## 7 Hepatitis A Alabama 1972 45 342 3524543 Biasa 9.703386  
## 8 Hepatitis A Alabama 1973 45 467 3571209 Biasa 13.076804  
## 9 Hepatitis A Alabama 1974 45 244 3620548 Biasa 6.739311  
## 10 Hepatitis A Alabama 1975 46 286 3671246 Biasa 7.790271

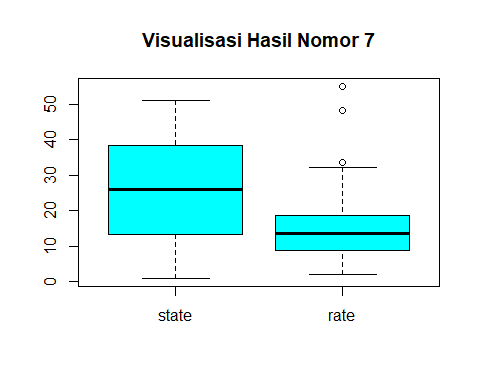
1. Tampilkan kesimpulan pada data nomor 6 dikelompokkan berdasarkan negara bagian yang isinya nama negara bagian dan rata-rata rate per negara bagian! **point 8**

dataa <- select(df2, state, rate)  
dataa1<-distinct(dataa, state, .keep\_all = TRUE)  
summary(dataa1)

## state rate   
## Alabama : 1 Min. : 2.089   
## Alaska : 1 1st Qu.: 8.816   
## Arizona : 1 Median :13.670   
## Arkansas : 1 Mean :15.946   
## California: 1 3rd Qu.:18.578   
## Colorado : 1 Max. :55.077   
## (Other) :45

1. Lakukan visualisasi pada hasil nomor 7!(Bebas menggunakan plot, boxplot, hist, ggplot2 dsb) **point 5**

boxplot(dataa1, col=c("cyan"), cex.main=1.2, main="Visualisasi Hasil Nomor 7")



##BAGIAN KEDUA

1. Load library tambahan untuk import file! **point 2**

library(dplyr)  
fdata=read.csv("worldwide\_covid\_data.csv")

1. Tampilkan informasi rinci tentang struktur dataset yang digunakan! **point 5**

str(fdata)

## 'data.frame': 196 obs. of 10 variables:  
## $ Country : chr "Afghanistan" "Albania" "Algeria" "Andorra" ...  
## $ Total\_Cases : int 156071 182610 205990 15425 64033 4031 5283000 298069 15848 163866 ...  
## $ Total\_Deaths : int 7262 2888 5899 130 1702 99 115866 6112 171 1669 ...  
## $ Total\_Recovered : num 128000 172464 141335 15205 52833 ...  
## $ Active\_Cases : num 20809 7258 58756 90 9498 ...  
## $ Total\_Cases\_per1M\_population: int 3894 63546 4589 199217 1872 40718 115496 100342 147611 6329 ...  
## $ Deaths\_per1M\_population : int 181 1005 131 1679 50 1000 2533 2058 1593 64 ...  
## $ Total\_Tests : num 771431 1289520 230861 193595 1092363 ...  
## $ Tests\_per1M\_population : num 19247 448738 5143 2500323 31933 ...  
## $ Population : int 40080392 2873656 44892255 77428 34207984 98997 45741769 2970540 107363 25889279 ...

1. Tampilkan 10 nama Negara dengan jumlah kasus Covid-19 yang terkonfirmasi dari paling banyak ke paling sedikit! **point 8**

df<-data.frame(fdata)  
x<-arrange(.data=df, desc(Total\_Cases))  
head(x[1:2],10)

## Country Total\_Cases  
## 1 USA 46497719  
## 2 India 34215653  
## 3 Brazil 21748984  
## 4 UK 8853227  
## 5 Russia 8316019  
## 6 Turkey 7909111  
## 7 France 7133766  
## 8 Iran 5877456  
## 9 Argentina 5283000  
## 10 Spain 5004143

1. Buat kolom baru bernama Rate\_Deaths yang berisi rasio korban Covid-19 yang meninggal dengan yang terkonfirmasi! **point 11**

new\_df1<-mutate(fdata, Rate\_Deaths=Total\_Deaths/Total\_Cases)  
new\_df1

## Country Total\_Cases Total\_Deaths Total\_Recovered  
## 1 Afghanistan 156071 7262 128000  
## 2 Albania 182610 2888 172464  
## 3 Algeria 205990 5899 141335  
## 4 Andorra 15425 130 15205  
## 5 Angola 64033 1702 52833  
## 6 Antigua and Barbuda 4031 99 3541  
## 7 Argentina 5283000 115866 5149181  
## 8 Armenia 298069 6112 263002  
## 9 Aruba 15848 171 15513  
## 10 Australia 163866 1669 130922  
## 11 Austria 804825 11279 760336  
## 12 Azerbaijan 520068 6939 486426  
## 13 Bahamas 22259 642 20261  
## 14 Bahrain 276635 1393 274640  
## 15 Bangladesh 1568257 27834 1532180  
## 16 Barbados 16033 143 10429  
## 17 Belarus 590226 4546 562091  
## 18 Belgium 1333947 25914 1209523  
## 19 Belize 26152 482 22957  
## 20 Benin 24678 161 23971  
## 21 Bermuda 5625 98 5400  
## 22 Bhutan 2617 3 2610  
## 23 Bolivia 510470 18903 473195  
## 24 Bosnia and Herzegovina 250165 11423 192218  
## 25 Botswana 185985 2402 182304  
## 26 Brazil 21748984 606293 20944087  
## 27 Brunei 12595 82 10047  
## 28 Bulgaria 582122 23440 471403  
## 29 Burkina Faso 14793 214 14287  
## 30 Burundi 19945 38 773  
## 31 Cabo Verde 38151 349 37524  
## 32 Cambodia 118111 2758 113791  
## 33 Cameroon 100289 1600 80433  
## 34 Canada 1704391 28841 1649582  
## 35 CAR 11518 100 6859  
## 36 Chad 5067 174 4874  
## 37 Chile 1684608 37691 1633518  
## 38 China 96899 4636 91620  
## 39 Colombia 4994014 127133 4838063  
## 40 Comoros 4233 147 4048  
## 41 Congo 16868 249 12421  
## 42 Costa Rica 557922 6997 490672  
## 43 Croatia 449365 9090 422331  
## 44 Cuba 947935 8201 934350  
## 45 CuraÃ§ao 17027 173 16703  
## 46 Cyprus 121986 571 90755  
## 47 Czechia 1735552 30648 1669501  
## 48 Denmark 379078 2703 362497  
## 49 Djibouti 13461 181 13215  
## 50 Dominica 4659 30 4248  
## 51 Dominican Republic 377385 4114 367642  
## 52 DRC 57453 1091 50930  
## 53 Ecuador 515659 32953 443880  
## 54 Egypt 326379 18375 275637  
## 55 El Salvador 113422 3596 94980  
## 56 Equatorial Guinea 13236 163 12565  
## 57 Eritrea 6798 45 6717  
## 58 Estonia 184509 1477 161349  
## 59 Eswatini 46390 1242 45075  
## 60 Ethiopia 363240 6393 336914  
## 61 Fiji 52028 673 48955  
## 62 Finland 155547 1150 46000  
## 63 France 7133766 117555 6921146  
## 64 French Guiana 44347 302 9995  
## 65 French Polynesia 40178 635 33500  
## 66 Gabon 34898 230 28567  
## 67 Gambia 9959 340 9603  
## 68 Georgia 698944 9831 639564  
## 69 Germany 4501021 95794 4237100  
## 70 Ghana 130008 1174 126976  
## 71 Greece 724571 15707 671596  
## 72 Grenada 5824 197 5503  
## 73 Guadeloupe 54350 736 2250  
## 74 Guatemala 596417 14797 574566  
## 75 Guinea 30645 385 29501  
## 76 Guinea-Bissau 6133 141 5492  
## 77 Guyana 35170 899 30933  
## 78 Haiti 23619 662 20249  
## 79 Honduras 374783 10211 115547  
## 80 Hong Kong 12331 213 12029  
## 81 Hungary 852214 30611 795828  
## 82 Iceland 13236 33 12427  
## 83 India 34215653 455684 33597339  
## 84 Indonesia 4241090 143270 4084831  
## 85 Iran 5877456 125519 5443243  
## 86 Iraq 2049240 23024 1991575  
## 87 Ireland 433902 5369 379308  
## 88 Isle of Man 9327 57 8492  
## 89 Israel 1324897 8063 1305834  
## 90 Italy 4747773 131904 4540823  
## 91 Ivory Coast 61221 691 59852  
## 92 Jamaica 88480 2184 56944  
## 93 Japan 1717104 18207 1693826  
## 94 Jordan 854758 10976 824993  
## 95 Kazakhstan 932688 12001 876699  
## 96 Kenya 252839 5263 246390  
## 97 Kuwait 412578 2461 409679  
## 98 Kyrgyzstan 180865 2661 175302  
## 99 Laos 37018 56 6558  
## 100 Latvia 205577 3076 169472  
## 101 Lebanon 638581 8465 613770  
## 102 Lesotho 21598 657 12227  
## 103 Liberia 5811 287 5458  
## 104 Libya 354866 5033 290784  
## 105 Liechtenstein 3545 61 3435  
## 106 Lithuania 392425 5693 349424  
## 107 Luxembourg 81124 842 78433  
## 108 Madagascar 42898 958 41322  
## 109 Malawi 61766 2296 57177  
## 110 Malaysia 2442224 28576 2340390  
## 111 Maldives 87186 242 85378  
## 112 Mali 15879 559 14597  
## 113 Malta 37580 460 36505  
## 114 Martinique 42634 670 104  
## 115 Mauritania 37032 792 35736  
## 116 Mauritius 17416 160 1854  
## 117 Mayotte 20497 182 2964  
## 118 Mexico 3788986 286888 3153067  
## 119 Moldova 330799 7576 308832  
## 120 Monaco 3399 36 3337  
## 121 Mongolia 353504 1689 313256  
## 122 Montenegro 141834 2075 135571  
## 123 Morocco 944803 14636 925125  
## 124 Mozambique 151243 1929 148979  
## 125 Myanmar 495898 18582 460224  
## 126 Namibia 128859 3550 124468  
## 127 Nepal 810298 11372 788630  
## 128 Netherlands 2093606 18340 1978158  
## 129 New Caledonia 10687 261 55  
## 130 New Zealand 5899 28 4567  
## 131 Nicaragua 16422 207 4225  
## 132 Niger 6260 208 5935  
## 133 Nigeria 211330 2884 202803  
## 134 North Macedonia 200412 7072 187149  
## 135 Norway 202554 895 88952  
## 136 Oman 304205 4111 299558  
## 137 Pakistan 1270322 28405 1217935  
## 138 Palestine 421916 4383 410176  
## 139 Panama 471884 7314 462287  
## 140 Papua New Guinea 28209 335 24502  
## 141 Paraguay 460815 16233 444303  
## 142 Peru 2197052 200118 NA  
## 143 Philippines 2765672 42077 2669953  
## 144 Poland 2982143 76540 2690118  
## 145 Portugal 1086280 18141 1037261  
## 146 Qatar 238742 609 237088  
## 147 RÃ©union 54668 374 53879  
## 148 Romania 1587880 45503 1345324  
## 149 Russia 8316019 232775 7213584  
## 150 Rwanda 99474 1321 45512  
## 151 S. Korea 356305 2797 329658  
## 152 Saint Lucia 12465 250 11842  
## 153 Saint Martin 3850 55 1399  
## 154 San Marino 5509 92 5383  
## 155 Sao Tome and Principe 3705 56 3211  
## 156 Saudi Arabia 548368 8782 537376  
## 157 Senegal 73897 1878 71995  
## 158 Serbia 1111957 9634 978736  
## 159 Seychelles 22086 119 21747  
## 160 Sierra Leone 6396 121 4393  
## 161 Singapore 179095 339 148408  
## 162 Sint Maarten 4484 75 4370  
## 163 Slovakia 460281 12935 414545  
## 164 Slovenia 322912 4704 297950  
## 165 Somalia 21269 1180 9927  
## 166 South Africa 2920109 88987 2812320  
## 167 South Sudan 12293 133 12008  
## 168 Spain 5004143 87238 4859415  
## 169 Sri Lanka 537201 13654 504003  
## 170 St. Vincent Grenadines 4905 64 3060  
## 171 Sudan 40238 3099 32905  
## 172 Suriname 48548 1069 29449  
## 173 Sweden 1168271 14964 1135105  
## 174 Switzerland 867197 11218 822212  
## 175 Syria 42076 2526 25926  
## 176 Taiwan 16380 847 15420  
## 177 Tajikistan 17086 124 16960  
## 178 Tanzania 26115 725 NA  
## 179 Thailand 1875315 18922 1758297  
## 180 Timor-Leste 19778 121 19605  
## 181 Togo 26011 242 25474  
## 182 Trinidad and Tobago 56013 1655 49616  
## 183 Tunisia 712013 25213 685508  
## 184 Turkey 7909111 69559 7346279  
## 185 UAE 739471 2134 733504  
## 186 Uganda 125788 3200 96575  
## 187 UK 8853227 139834 7198408  
## 188 Ukraine 2825733 65628 2401705  
## 189 Uruguay 392585 6074 384702  
## 190 USA 46497719 759932 36375189  
## 191 Uzbekistan 184563 1312 180305  
## 192 Venezuela 402407 4836 384305  
## 193 Vietnam 896174 21802 810290  
## 194 Yemen 9711 1858 6309  
## 195 Zambia 209648 3660 205873  
## 196 Zimbabwe 132724 4674 127497  
## Active\_Cases Total\_Cases\_per1M\_population Deaths\_per1M\_population  
## 1 20809 3894 181  
## 2 7258 63546 1005  
## 3 58756 4589 131  
## 4 90 199217 1679  
## 5 9498 1872 50  
## 6 391 40718 1000  
## 7 17953 115496 2533  
## 8 28955 100342 2058  
## 9 164 147611 1593  
## 10 31275 6329 64  
## 11 33210 88695 1243  
## 12 26703 50691 676  
## 13 1356 55900 1612  
## 14 602 155487 783  
## 15 8243 9399 167  
## 16 5461 55701 497  
## 17 23589 62489 481  
## 18 98510 114442 2223  
## 19 2713 64237 1184  
## 20 546 1968 13  
## 21 127 90762 1581  
## 22 4 3343 4  
## 23 18372 42960 1591  
## 24 46524 76881 3511  
## 25 1279 77043 995  
## 26 198604 101371 2826  
## 27 2466 28432 185  
## 28 87279 84617 3407  
## 29 292 683 10  
## 30 19134 1614 3  
## 31 278 67651 619  
## 32 1562 6938 162  
## 33 18256 3658 58  
## 34 25968 44643 755  
## 35 4559 2331 20  
## 36 19 297 10  
## 37 13399 87140 1950  
## 38 643 67 3  
## 39 28818 96789 2464  
## 40 38 4735 164  
## 41 4198 2961 44  
## 42 60253 108222 1357  
## 43 17944 110358 2232  
## 44 5384 83758 725  
## 45 151 103208 1049  
## 46 30660 100076 468  
## 47 35403 161670 2855  
## 48 13878 65144 465  
## 49 65 13369 180  
## 50 381 64509 415  
## 51 5629 34335 374  
## 52 5432 617 12  
## 53 38826 28655 1831  
## 54 32367 3112 175  
## 55 14846 17371 551  
## 56 508 9044 111  
## 57 36 1883 12  
## 58 21683 138968 1112  
## 59 73 39448 1056  
## 60 19933 3060 54  
## 61 2400 57490 744  
## 62 108397 28016 207  
## 63 95065 108973 1796  
## 64 34050 143588 978  
## 65 6043 141948 2243  
## 66 6101 15208 100  
## 67 16 3974 136  
## 68 49549 175655 2471  
## 69 168127 53496 1139  
## 70 1858 4072 37  
## 71 37268 69967 1517  
## 72 124 51444 1740  
## 73 51364 135802 1839  
## 74 7054 32500 806  
## 75 759 2253 28  
## 76 500 3023 69  
## 77 3338 44432 1136  
## 78 2708 2039 57  
## 79 249025 37064 1010  
## 80 89 1627 28  
## 81 25775 88514 3179  
## 82 776 38459 96  
## 83 162630 24477 326  
## 84 12989 15293 517  
## 85 308694 68817 1470  
## 86 34641 49488 556  
## 87 49225 86601 1072  
## 88 778 108927 666  
## 89 11000 142065 865  
## 90 75046 78678 2186  
## 91 678 2248 25  
## 92 29352 29709 733  
## 93 5071 13631 145  
## 94 18789 82693 1062  
## 95 43988 48903 629  
## 96 1186 4570 95  
## 97 438 94766 565  
## 98 2902 27133 399  
## 99 30404 4993 8  
## 100 33029 110603 1655  
## 101 16346 94114 1248  
## 102 8714 9978 304  
## 103 66 1115 55  
## 104 59049 50737 720  
## 105 49 92626 1594  
## 106 37308 146855 2130  
## 107 1849 126881 1317  
## 108 618 1499 33  
## 109 2293 3123 116  
## 110 73258 74205 868  
## 111 1566 157642 438  
## 112 723 756 27  
## 113 615 84813 1038  
## 114 41860 113726 1787  
## 115 504 7699 165  
## 116 15402 13664 126  
## 117 17351 72823 647  
## 118 349031 28986 2195  
## 119 14391 82255 1884  
## 120 26 85816 909  
## 121 38559 105595 505  
## 122 4188 225789 3303  
## 123 5042 25204 390  
## 124 335 4667 60  
## 125 17092 9034 339  
## 126 841 49534 1365  
## 127 10296 27168 381  
## 128 97108 121829 1067  
## 129 10371 36965 903  
## 130 1304 1179 6  
## 131 11990 2441 31  
## 132 117 247 8  
## 133 5643 993 14  
## 134 6191 96201 3395  
## 135 112707 36982 163  
## 136 536 57645 779  
## 137 23982 5608 125  
## 138 7357 80254 834  
## 139 2283 107146 1661  
## 140 3372 3076 37  
## 141 279 63580 2240  
## 142 NA 65435 5960  
## 143 53642 24804 377  
## 144 215485 78909 2025  
## 145 30878 106943 1786  
## 146 1045 85028 217  
## 147 415 60492 414  
## 148 197053 83272 2386  
## 149 869660 56952 1594  
## 150 52641 7438 99  
## 151 23850 6942 54  
## 152 373 67476 1353  
## 153 2396 97387 1391  
## 154 34 161910 2704  
## 155 438 16503 249  
## 156 2210 15435 247  
## 157 24 4266 108  
## 158 123587 127944 1109  
## 159 220 222756 1200  
## 160 1882 781 15  
## 161 30348 30299 57  
## 162 39 103040 1723  
## 163 32801 84252 2368  
## 164 20258 155297 2262  
## 165 10162 1291 72  
## 166 18802 48432 1476  
## 167 152 1082 12  
## 168 57490 106975 1865  
## 169 19544 24950 634  
## 170 1781 44029 574  
## 171 4234 890 69  
## 172 18030 81792 1801  
## 173 18202 114737 1470  
## 174 33767 99245 1284  
## 175 13624 2330 140  
## 176 113 686 35  
## 177 2 1740 13  
## 178 NA 421 12  
## 179 98096 26778 270  
## 180 52 14635 90  
## 181 295 3048 28  
## 182 4742 39854 1178  
## 183 1292 59427 2104  
## 184 493273 92468 813  
## 185 3833 73596 212  
## 186 26013 2641 67  
## 187 1514985 129517 2046  
## 188 358400 65128 1513  
## 189 1809 112502 1741  
## 190 9362598 139399 2278  
## 191 2946 5411 38  
## 192 13266 14204 171  
## 193 64082 9099 221  
## 194 1544 316 61  
## 195 115 10999 192  
## 196 553 8762 309  
## Total\_Tests Tests\_per1M\_population Population Rate\_Deaths  
## 1 771431 19247 40080392 0.046530105  
## 2 1289520 448738 2873656 0.015815125  
## 3 230861 5143 44892255 0.028637312  
## 4 193595 2500323 77428 0.008427877  
## 5 1092363 31933 34207984 0.026580045  
## 6 17674 178531 98997 0.024559663  
## 7 24896917 544293 45741769 0.021931857  
## 8 2018614 679544 2970540 0.020505319  
## 9 177885 1656856 107363 0.010790005  
## 10 42692931 1649058 25889279 0.010185151  
## 11 95541800 10529092 9074078 0.014014227  
## 12 5131033 500125 10259494 0.013342486  
## 13 155049 389383 398191 0.028842266  
## 14 6840598 3844860 1779154 0.005035516  
## 15 10262107 61505 166849261 0.017748366  
## 16 378335 1314398 287839 0.008919104  
## 17 9415479 996850 9445227 0.007702134  
## 18 21405101 1836392 11656062 0.019426559  
## 19 303238 744837 407120 0.018430713  
## 20 604310 48190 12540234 0.006524029  
## 21 586598 9465075 61975 0.017422222  
## 22 1192940 1523957 782791 0.001146351  
## 23 2516925 211817 11882528 0.037030580  
## 24 1291186 396810 3253915 0.045661863  
## 25 1811943 750584 2414043 0.012915020  
## 26 63776166 297257 214549103 0.027876842  
## 27 482763 1089773 442994 0.006510520  
## 28 5378292 781788 6879479 0.040266473  
## 29 222837 10290 21655917 0.014466302  
## 30 345742 27983 12355639 0.001905239  
## 31 211025 374201 563935 0.009147860  
## 32 2601505 152819 17023399 0.023350916  
## 33 1751774 63901 27413866 0.015953893  
## 34 45819418 1200158 38177832 0.016921587  
## 35 60228 12191 4940197 0.008682063  
## 36 148082 8688 17044655 0.034339846  
## 37 23240554 1202165 19332246 0.022373751  
## 38 160000000 111163 1439323776 0.047843631  
## 39 26610010 515730 51596762 0.025457077  
## 40 NA NA 893947 0.034727144  
## 41 188207 33039 5696509 0.014761679  
## 42 2524241 489634 5155359 0.012541180  
## 43 3048235 748604 4071891 0.020228545  
## 44 10404761 919351 11317505 0.008651437  
## 45 305800 1853592 164977 0.010160334  
## 46 9420908 7728815 1218933 0.004680865  
## 47 40033548 3729200 10735157 0.017658935  
## 48 85395099 14675037 5819072 0.007130459  
## 49 234424 232817 1006902 0.013446252  
## 50 89602 1240647 72222 0.006439150  
## 51 2187112 198989 10991110 0.010901334  
## 52 306299 3289 93135138 0.018989435  
## 53 1914667 106397 17995480 0.063904635  
## 54 3693367 35218 104872082 0.056299578  
## 55 1357788 207953 6529311 0.031704608  
## 56 238486 162960 1463460 0.012314899  
## 57 23693 6561 3611001 0.006619594  
## 58 2097590 1579856 1327710 0.008005030  
## 59 367421 312439 1175976 0.026773011  
## 60 3663817 30865 118704314 0.017599934  
## 61 436822 482677 904999 0.012935343  
## 62 7411266 1334868 5552061 0.007393264  
## 63 151204954 2309749 65463804 0.016478673  
## 64 425046 1376221 308850 0.006809931  
## 65 26355 93112 283047 0.015804669  
## 66 1305320 568833 2294735 0.006590636  
## 67 103948 41483 2505809 0.034139974  
## 68 9992057 2511151 3979075 0.014065505  
## 69 73348901 871781 84136868 0.021282727  
## 70 1842458 57711 31925467 0.009030214  
## 71 25123079 2425959 10355939 0.021677655  
## 72 79955 706254 113210 0.033825549  
## 73 495286 1237553 400214 0.013541858  
## 74 2851620 155390 18351317 0.024809823  
## 75 564994 41542 13600567 0.012563224  
## 76 102067 50301 2029112 0.022990380  
## 77 348832 440694 791551 0.025561558  
## 78 120507 10402 11585458 0.028028282  
## 79 1084755 107276 10111812 0.027245099  
## 80 26499519 3497333 7577065 0.017273538  
## 81 7301452 758354 9628020 0.035919382  
## 82 1127289 3275479 344160 0.002493200  
## 83 601901543 430586 1397864972 0.013317998  
## 84 45541632 164214 277330765 0.033781410  
## 85 32619228 381924 85407642 0.021356008  
## 86 15718588 379597 41408566 0.011235385  
## 87 7897226 1576172 5010383 0.012373762  
## 88 128771 1503877 85626 0.006111290  
## 89 29094533 3119723 9326000 0.006085756  
## 90 101911219 1688819 60344656 0.027782289  
## 91 1066678 39164 27236329 0.011286977  
## 92 635655 213437 2978192 0.024683544  
## 93 26183287 207860 125966129 0.010603318  
## 94 10809943 1045806 10336473 0.012841061  
## 95 11575012 606902 19072287 0.012867111  
## 96 2682247 48479 55327825 0.020815618  
## 97 4741080 1088988 4353658 0.005964933  
## 98 1766598 265026 6665765 0.014712631  
## 99 611160 82428 7414455 0.001512778  
## 100 4831287 2599288 1858696 0.014962763  
## 101 4780275 704520 6785153 0.013255953  
## 102 234404 108289 2164610 0.030419483  
## 103 128246 24597 5213866 0.049389090  
## 104 1771282 253249 6994233 0.014182818  
## 105 49126 1283602 38272 0.017207334  
## 106 5482792 2051800 2672187 0.014507231  
## 107 3579957 5599168 639373 0.010379173  
## 108 249510 8716 28626018 0.022332043  
## 109 423467 21410 19779198 0.037172554  
## 110 33633342 1021927 32911686 0.011700810  
## 111 1588558 2872291 553063 0.002775675  
## 112 448825 21356 21016578 0.035203728  
## 113 1211456 2734096 443092 0.012240553  
## 114 376921 1005439 374882 0.015715157  
## 115 484600 100745 4810167 0.021386909  
## 116 358675 281413 1274549 0.009186955  
## 117 176919 628569 281463 0.008879348  
## 118 11250436 86068 130715840 0.075716300  
## 119 1985799 493783 4021606 0.022902125  
## 120 54960 1387598 39608 0.010591350  
## 121 4030048 1203815 3347729 0.004777881  
## 122 803043 1278383 628171 0.014629778  
## 123 10030332 267573 37486335 0.015491060  
## 124 936296 28893 32405166 0.012754309  
## 125 4771253 86924 54890141 0.037471415  
## 126 743492 285803 2601412 0.027549492  
## 127 4386567 147072 29825911 0.014034343  
## 128 17988698 1046778 17184822 0.008760005  
## 129 42756 147888 289111 0.024422195  
## 130 3979577 795581 5002100 0.004746567  
## 131 NA NA 6728281 0.012605042  
## 132 169153 6671 25355726 0.033226837  
## 133 3298966 15499 212851076 0.013646903  
## 134 1369624 657442 2083261 0.035287308  
## 135 8088217 1476745 5477058 0.004418575  
## 136 25000000 4737348 5277214 0.013513913  
## 137 20610681 90984 226531131 0.022360472  
## 138 2619049 498180 5257230 0.010388324  
## 139 4040000 917325 4404110 0.015499572  
## 140 207207 22597 9169851 0.011875643  
## 141 1886023 260219 7247837 0.035226718  
## 142 18867422 561929 33576160 0.091084781  
## 143 22740209 203948 111500195 0.015214024  
## 144 21925993 580176 37791984 0.025666107  
## 145 19736210 1943014 10157522 0.016700114  
## 146 2804976 998992 2807805 0.002550871  
## 147 1279618 1415936 903726 0.006841297  
## 148 14446331 757602 19068495 0.028656448  
## 149 205800000 1409426 146016918 0.027991158  
## 150 3076863 230063 13373978 0.013279852  
## 151 15628311 304483 51327324 0.007850016  
## 152 85636 463569 184732 0.020056157  
## 153 54303 1373612 39533 0.014285714  
## 154 82601 2427656 34025 0.016699946  
## 155 14689 65427 224510 0.015114710  
## 156 30140728 848388 35527051 0.016014793  
## 157 833323 48104 17323407 0.025413752  
## 158 6205905 714063 8690979 0.008664004  
## 159 21504 216886 99149 0.005388029  
## 160 160729 19625 8190217 0.018918074  
## 161 20667026 3496411 5910925 0.001892850  
## 162 53105 1220328 43517 0.016726137  
## 163 3874010 709120 5463127 0.028102398  
## 164 1698057 816643 2079315 0.014567436  
## 165 239292 14524 16475414 0.055479806  
## 166 18407943 305310 60292708 0.030473862  
## 167 247059 21736 11366444 0.010819165  
## 168 66213858 1415472 46778641 0.017433155  
## 169 5381256 249925 21531515 0.025416930  
## 170 85741 769640 111404 0.013047910  
## 171 238579 5279 45194436 0.077016750  
## 172 145862 245744 593552 0.022019445  
## 173 13154558 1291917 10182198 0.012808672  
## 174 11566572 1323715 8737965 0.012935930  
## 175 103566 5735 18059157 0.060034224  
## 176 7246326 303529 23873571 0.051709402  
## 177 NA NA 9819148 0.007257404  
## 178 NA NA 61967997 0.027761823  
## 179 14913135 212951 70030726 0.010090038  
## 180 169501 125421 1351460 0.006117909  
## 181 543576 63698 8533655 0.009303756  
## 182 382242 271970 1405458 0.029546712  
## 183 3053773 254876 11981402 0.035410870  
## 184 95211266 1113144 85533610 0.008794794  
## 185 91908560 9147256 10047665 0.002885847  
## 186 1785306 37478 47636643 0.025439629  
## 187 325510859 4762015 68355696 0.015794693  
## 188 14154508 326236 43387372 0.023225124  
## 189 3785389 1084766 3489589 0.015471809  
## 190 692816053 2077042 333558957 0.016343425  
## 191 1377915 40399 34107349 0.007108684  
## 192 3359014 118568 28329745 0.012017684  
## 193 42517091 431682 98491625 0.024327865  
## 194 265253 8643 30689226 0.191329420  
## 195 2578545 135286 19059950 0.017457834  
## 196 1490416 98393 15147568 0.035215937

1. Negara mana yang memiliki rasio kematian Covid-19 tertinggi dan terendah? Tampilkan nama negaranya. **point 11**

i\_max<-which.max(new\_df1$Rate\_Deaths)  
i\_min<-which.min(new\_df1$Rate\_Deaths)  
##TERTINGGI  
new\_df1$Country[i\_max]

## [1] "Yemen"

##TERENDAH  
new\_df1$Country[i\_min]

## [1] "Bhutan"

1. Tampilkan grafik plot antara penderita yang sembuh dengan penderita yang terkonfirmasi Covid-19! **point 8**

x<-log10(new\_df1$Total\_Recovered)  
y<-log10(new\_df1$Total\_Cases)  
plot(x,y)

