Assesment

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R Markdown

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When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
library(gtrendsR)

## Warning: package 'gtrendsR' was built under R version 4.1.2

searched_data=gtrendsR::gtrends('machine learning')
searched_country=searched_data$interest_by_country
searched_country

##                                 location hits        keyword   geo
gprop
## 1                                 China  100 machine learning world
web
## 2                             Singapore   39 machine learning world
web
## 3                            St. Helena   33 machine learning world
web
## 4                              Ethiopia   29 machine learning world
web
## 5                                 India   28 machine learning world
web
## 6                                Rwanda   NA machine learning world
web
## 7                             Hong Kong   24 machine learning world
web
## 8                           South Korea   24 machine learning world
web
## 9                              Zimbabwe   NA machine learning world
web
## 10                                Nepal   20 machine learning world
web
## 11                             Pakistan   18 machine learning world
web
```

```
## 12                Bangladesh   17 machine learning world
web
## 13                   Tunisia   17 machine learning world
web
## 14                    Israel   17 machine learning world
web
## 15                  Botswana   NA machine learning world
web
## 16               Switzerland   15 machine learning world
web
## 17                 Sri Lanka   15 machine learning world
web
## 18                   Ireland   15 machine learning world
web
## 19                Luxembourg   NA machine learning world
web
## 20                Madagascar   NA machine learning world
web
## 21      United Arab Emirates   14 machine learning world
web
## 22                   Denmark   14 machine learning world
web
## 23                     Kenya   14 machine learning world
web
## 24                    Canada   14 machine learning world
web
## 25                   Armenia   NA machine learning world
web
## 26             United States   13 machine learning world
web
## 27                    Norway   12 machine learning world
web
## 28                    Sweden   12 machine learning world
web
## 29                     Ghana   NA machine learning world
web
## 30           Myanmar (Burma)   NA machine learning world
web
## 31                   Finland   11 machine learning world
web
## 32                   Morocco   11 machine learning world
web
## 33                      Laos   NA machine learning world
web
## 34                     Malta   NA machine learning world
web
## 35                  Mongolia   NA machine learning world
web
## 36                    Cyprus   NA machine learning world
web
```

```
## 37                       Macao    NA machine learning world
web
## 38                     Nigeria    11 machine learning world
web
## 39                    Cameroon    NA machine learning world
web
## 40                     Senegal    NA machine learning world
web
## 41                     Lebanon    NA machine learning world
web
## 42                 Netherlands    11 machine learning world
web
## 43                   Australia    11 machine learning world
web
## 44              United Kingdom    10 machine learning world
web
## 45                      Malawi    NA machine learning world
web
## 46                      Taiwan    10 machine learning world
web
## 47                    Malaysia    10 machine learning world
web
## 48                   Mauritius    NA machine learning world
web
## 49                     Iceland    NA machine learning world
web
## 50                     Germany    10 machine learning world
web
## 51             North Macedonia    NA machine learning world
web
## 52                    Portugal     9 machine learning world
web
## 53                South Africa     9 machine learning world
web
## 54                 New Zealand     9 machine learning world
web
## 55                      Greece     9 machine learning world
web
## 56                       Egypt     9 machine learning world
web
## 57                     Vietnam     9 machine learning world
web
## 58                      Uganda    NA machine learning world
web
## 59                     Belgium     8 machine learning world
web
## 60                     Estonia    NA machine learning world
web
## 61                     Bahrain    NA machine learning world
web
```

```
## 62                     Palestine   NA machine learning world
web
## 63                     Lithuania   NA machine learning world
web
## 64                      Somalia    NA machine learning world
web
## 65                     Slovenia    NA machine learning world
web
## 66                        Qatar    NA machine learning world
web
## 67                      Austria     7 machine learning world
web
## 68                  Afghanistan    NA machine learning world
web
## 69                        Cuba     NA machine learning world
web
## 70                     Tanzania    NA machine learning world
web
## 71                     Barbados    NA machine learning world
web
## 72                      Jordan     NA machine learning world
web
## 73                      France      7 machine learning world
web
## 74          Antigua & Barbuda     NA machine learning world
web
## 75                      Namibia    NA machine learning world
web
## 76                      Romania     7 machine learning world
web
## 77                     Thailand     7 machine learning world
web
## 78                        Peru      6 machine learning world
web
## 79                      Croatia     6 machine learning world
web
## 80                       Serbia     6 machine learning world
web
## 81                   Costa Rica    NA machine learning world
web
## 82                        Spain     6 machine learning world
web
## 83                        Oman     NA machine learning world
web
## 84                       Brunei    NA machine learning world
web
## 85                     Colombia     6 machine learning world
web
## 86                  Philippines     6 machine learning world
web
```

```
## 87                         Cambodia    NA machine learning world
web
## 88                          Albania    NA machine learning world
web
## 89                 Trinidad & Tobago   NA machine learning world
web
## 90                          Czechia     6 machine learning world
web
## 91                    New Caledonia    NA machine learning world
web
## 92                            Italy     6 machine learning world
web
## 93                          Uruguay    NA machine learning world
web
## 94                           Latvia    NA machine learning world
web
## 95                            Chile     5 machine learning world
web
## 96                          Jamaica    NA machine learning world
web
## 97                           Kosovo    NA machine learning world
web
## 98                           Zambia    NA machine learning world
web
## 99                     Saudi Arabia     5 machine learning world
web
## 100                           Benin    NA machine learning world
web
## 101                   Côte d'Ivoire    NA machine learning world
web
## 102                        Bulgaria     5 machine learning world
web
## 103                      Azerbaijan    NA machine learning world
web
## 104                         Algeria     5 machine learning world
web
## 105                          Panama    NA machine learning world
web
## 106                         Hungary     5 machine learning world
web
## 107                         Georgia    NA machine learning world
web
## 108                        Suriname    NA machine learning world
web
## 109                           Sudan    NA machine learning world
web
## 110                           Syria    NA machine learning world
web
## 111                          Poland     4 machine learning world
web
```

```
## 112                      Iran    4 machine learning world
web
## 113                   Ecuador    4 machine learning world
web
## 114                   Bolivia   NA machine learning world
web
## 115                 Indonesia    4 machine learning world
web
## 116                    Angola   NA machine learning world
web
## 117                     Libya   NA machine learning world
web
## 118                    Brazil    4 machine learning world
web
## 119                    Belize   NA machine learning world
web
## 120     Bosnia & Herzegovina    NA machine learning world
web
## 121                    Kuwait   NA machine learning world
web
## 122                  Slovakia   NA machine learning world
web
## 123                      Iraq   NA machine learning world
web
## 124                 Argentina    4 machine learning world
web
## 125                   Belarus   NA machine learning world
web
## 126         Congo - Kinshasa    NA machine learning world
web
## 127               Puerto Rico   NA machine learning world
web
## 128       Dominican Republic   NA machine learning world
web
## 129                    Mexico    3 machine learning world
web
## 130                    Turkey    3 machine learning world
web
## 131                    Russia    3 machine learning world
web
## 132                     Yemen   NA machine learning world
web
## 133              El Salvador    NA machine learning world
web
## 134                   Bahamas   NA machine learning world
web
## 135                Kazakhstan   NA machine learning world
web
## 136                Uzbekistan   NA machine learning world
web
```

```
## 137                   Ukraine    3 machine learning world
web
## 138                Mozambique   NA machine learning world
web
## 139                     Haiti   NA machine learning world
web
## 140                   Moldova   NA machine learning world
web
## 141                  Honduras   NA machine learning world
web
## 142                 Guatemala   NA machine learning world
web
## 143                     Japan    2 machine learning world
web
## 144                  Paraguay   NA machine learning world
web
## 145                 Nicaragua   NA machine learning world
web
## 146                Kyrgyzstan   NA machine learning world
web
## 147                 Venezuela   NA machine learning world
web
## 148                   Eritrea   NA machine learning world
web
## 149        Svalbard & Jan Mayen   NA machine learning world
web
## 150              Åland Islands   NA machine learning world
web
## 151             Liechtenstein   NA machine learning world
web
## 152     British Virgin Islands   NA machine learning world
web
## 153                  Eswatini   NA machine learning world
web
## 154                 San Marino   NA machine learning world
web
## 155              Faroe Islands   NA machine learning world
web
## 156                 Greenland   NA machine learning world
web
## 157                    Bhutan   NA machine learning world
web
## 158                   Lesotho   NA machine learning world
web
## 159               Timor-Leste   NA machine learning world
web
## 160                     Gabon   NA machine learning world
web
## 161                   Burundi   NA machine learning world
web
```

```
## 162                    Cape Verde    NA machine learning world
web
## 163          U.S. Virgin Islands    NA machine learning world
web
## 164                   Isle of Man    NA machine learning world
web
## 165         Caribbean Netherlands    NA machine learning world
web
## 166                       Bermuda    NA machine learning world
web
## 167                          Chad    NA machine learning world
web
## 168                  Sint Maarten    NA machine learning world
web
## 169                      Guernsey    NA machine learning world
web
## 170                      Maldives    NA machine learning world
web
## 171              Papua New Guinea    NA machine learning world
web
## 172                         Niger    NA machine learning world
web
## 173                 Cayman Islands    NA machine learning world
web
## 174                     Gibraltar    NA machine learning world
web
## 175             Equatorial Guinea    NA machine learning world
web
## 176             French Polynesia    NA machine learning world
web
## 177                      Dominica    NA machine learning world
web
## 178                      Djibouti    NA machine learning world
web
## 179                        Jersey    NA machine learning world
web
## 180                          Togo    NA machine learning world
web
## 181                     St. Lucia    NA machine learning world
web
## 182        Turks & Caicos Islands    NA machine learning world
web
## 183                       Liberia    NA machine learning world
web
## 184                    Seychelles    NA machine learning world
web
## 185                          Guam    NA machine learning world
web
## 186                        Guyana    NA machine learning world
web
```

```
## 187                    Mauritania   NA machine learning world
web
## 188                         Curaçao   NA machine learning world
web
## 189             Congo - Brazzaville   NA machine learning world
web
## 190                          Gambia   NA machine learning world
web
## 191                      Martinique   NA machine learning world
web
## 192                      Montenegro   NA machine learning world
web
## 193                            Fiji   NA machine learning world
web
## 194        St. Vincent & Grenadines   NA machine learning world
web
## 195                     Burkina Faso   NA machine learning world
web
## 196                   Western Sahara   NA machine learning world
web
## 197                         Grenada   NA machine learning world
web
## 198                     Sierra Leone   NA machine learning world
web
## 199                          Réunion   NA machine learning world
web
## 200                          Guinea   NA machine learning world
web
## 201                    Turkmenistan   NA machine learning world
web
## 202                            Mali   NA machine learning world
web
## 203                   French Guiana   NA machine learning world
web
## 204                           Aruba   NA machine learning world
web
## 205                          Andorra   NA machine learning world
web
## 206                      Tajikistan   NA machine learning world
web
## 207                      Guadeloupe   NA machine learning world
web
## 208                        Anguilla   NA machine learning world
web
## 209                  American Samoa   NA machine learning world
web
## 210                      Antarctica   NA machine learning world
web
## 211     French Southern Territories   NA machine learning world
web
```

```
## 212                         St. Barthélemy   NA machine learning world
web
## 213                          Bouvet Island   NA machine learning world
web
## 214                Central African Republic   NA machine learning world
web
## 215                 Cocos (Keeling) Islands   NA machine learning world
web
## 216                            Cook Islands   NA machine learning world
web
## 217                                 Comoros   NA machine learning world
web
## 218                        Christmas Island   NA machine learning world
web
## 219       Falkland Islands (Islas Malvinas)   NA machine learning world
web
## 220                              Micronesia   NA machine learning world
web
## 221                           Guinea-Bissau   NA machine learning world
web
## 222                 Heard & McDonald Islands   NA machine learning world
web
## 223           British Indian Ocean Territory   NA machine learning world
web
## 224                                Kiribati   NA machine learning world
web
## 225                        St. Kitts & Nevis   NA machine learning world
web
## 226                               St. Martin   NA machine learning world
web
## 227                                   Monaco   NA machine learning world
web
## 228                         Marshall Islands   NA machine learning world
web
## 229               Northern Mariana Islands   NA machine learning world
web
## 230                               Montserrat   NA machine learning world
web
## 231                                  Mayotte   NA machine learning world
web
## 232                          Norfolk Island   NA machine learning world
web
## 233                                     Niue   NA machine learning world
web
## 234                                    Nauru   NA machine learning world
web
## 235                         Pitcairn Islands   NA machine learning world
web
## 236                                    Palau   NA machine learning world
web
```

```
## 237                             North Korea  NA machine learning world
web
## 238 South Georgia & South Sandwich Islands   NA machine learning world
web
## 239                         Solomon Islands  NA machine learning world
web
## 240                   St. Pierre & Miquelon  NA machine learning world
web
## 241                             South Sudan  NA machine learning world
web
## 242                   São Tomé & Príncipe  NA machine learning world
web
## 243                                 Tokelau  NA machine learning world
web
## 244                                   Tonga  NA machine learning world
web
## 245                                  Tuvalu  NA machine learning world
web
## 246                    U.S. Outlying Islands  NA machine learning world
web
## 247                            Vatican City  NA machine learning world
web
## 248                                 Vanuatu  NA machine learning world
web
## 249                         Wallis & Futuna  NA machine learning world
web
## 250                                   Samoa  NA machine learning world
web

na_removed=na.omit(searched_country)
#na_removed=searched_country[which(searched_country$hits!=NA),]
na_removed

##                  location hits        keyword   geo gprop
## 1                   China  100 machine learning world   web
## 2               Singapore   39 machine learning world   web
## 3              St. Helena   33 machine learning world   web
## 4                Ethiopia   29 machine learning world   web
## 5                   India   28 machine learning world   web
## 7               Hong Kong   24 machine learning world   web
## 8             South Korea   24 machine learning world   web
## 10                  Nepal   20 machine learning world   web
## 11               Pakistan   18 machine learning world   web
## 12             Bangladesh   17 machine learning world   web
## 13                Tunisia   17 machine learning world   web
## 14                 Israel   17 machine learning world   web
## 16            Switzerland   15 machine learning world   web
## 17              Sri Lanka   15 machine learning world   web
## 18                Ireland   15 machine learning world   web
## 21   United Arab Emirates   14 machine learning world   web
```

```
## 22            Denmark  14 machine learning world     web
## 23             Kenya  14 machine learning world     web
## 24            Canada  14 machine learning world     web
## 26      United States  13 machine learning world     web
## 27            Norway  12 machine learning world     web
## 28            Sweden  12 machine learning world     web
## 31            Finland  11 machine learning world     web
## 32           Morocco  11 machine learning world     web
## 38            Nigeria  11 machine learning world     web
## 42        Netherlands  11 machine learning world     web
## 43          Australia  11 machine learning world     web
## 44     United Kingdom  10 machine learning world     web
## 46            Taiwan  10 machine learning world     web
## 47           Malaysia  10 machine learning world     web
## 50           Germany  10 machine learning world     web
## 52           Portugal   9 machine learning world     web
## 53       South Africa   9 machine learning world     web
## 54        New Zealand   9 machine learning world     web
## 55            Greece   9 machine learning world     web
## 56             Egypt   9 machine learning world     web
## 57           Vietnam   9 machine learning world     web
## 59           Belgium   8 machine learning world     web
## 67            Austria   7 machine learning world     web
## 73            France   7 machine learning world     web
## 76           Romania   7 machine learning world     web
## 77          Thailand   7 machine learning world     web
## 78              Peru   6 machine learning world     web
## 79           Croatia   6 machine learning world     web
## 80            Serbia   6 machine learning world     web
## 82             Spain   6 machine learning world     web
## 85          Colombia   6 machine learning world     web
## 86        Philippines   6 machine learning world     web
## 90           Czechia   6 machine learning world     web
## 92             Italy   6 machine learning world     web
## 95             Chile   5 machine learning world     web
## 99       Saudi Arabia   5 machine learning world     web
## 102          Bulgaria   5 machine learning world     web
## 104           Algeria   5 machine learning world     web
## 106           Hungary   5 machine learning world     web
## 111            Poland   4 machine learning world     web
## 112              Iran   4 machine learning world     web
## 113           Ecuador   4 machine learning world     web
## 115         Indonesia   4 machine learning world     web
## 118            Brazil   4 machine learning world     web
## 124         Argentina   4 machine learning world     web
## 129            Mexico   3 machine learning world     web
## 130            Turkey   3 machine learning world     web
## 131            Russia   3 machine learning world     web
## 137           Ukraine   3 machine learning world     web
## 143             Japan   2 machine learning world     web
```

```
top_10=head(na_removed,10)
top_10
```
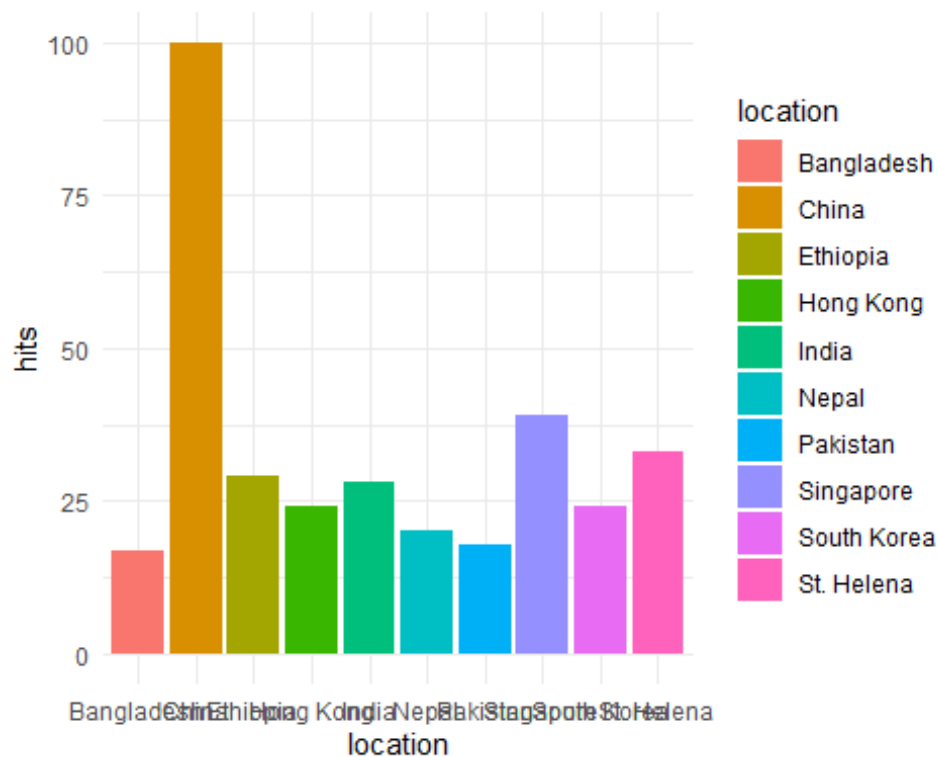
```
##        location hits          keyword   geo gprop
## 1         China  100 machine learning world   web
## 2     Singapore   39 machine learning world   web
## 3    St. Helena   33 machine learning world   web
## 4      Ethiopia   29 machine learning world   web
## 5         India   28 machine learning world   web
## 7     Hong Kong   24 machine learning world   web
## 8   South Korea   24 machine learning world   web
## 10        Nepal   20 machine learning world   web
## 11     Pakistan   18 machine learning world   web
## 12   Bangladesh   17 machine learning world   web
```

```
library(ggplot2)
```

```
## Warning: package 'ggplot2' was built under R version 4.1.2
```

```
p<-ggplot(top_10, aes(x=location, y=hits, fill=location)) +
  geom_bar(stat="identity")+theme_minimal()
p
```



```
library(ggplot2)
library(dplyr)
```

```
## Warning: package 'dplyr' was built under R version 4.1.2
```

```
##
## 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(plotly)

## Warning: package 'plotly' was built under R version 4.1.2

##
## Attaching package: 'plotly'

## The following object is masked from 'package:ggplot2':
##
##     last_plot

## The following object is masked from 'package:stats':
##
##     filter

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

library(hrbrthemes)

## Warning: package 'hrbrthemes' was built under R version 4.1.2

## NOTE: Either Arial Narrow or Roboto Condensed fonts are required to use
these themes.

##        Please use hrbrthemes::import_roboto_condensed() to install Roboto
Condensed and

##        if Arial Narrow is not on your system, please see
https://bit.ly/arialnarrow

#data <-
read.table("https://raw.githubusercontent.com/holtzy/data_to_viz/master/Examp
le_dataset/3_TwoNumOrdered.csv", header=T)
#data$date <- as.Date(data$date)
#data
over_time=searched_data$interest_over_time
over_time

##            date hits          keyword    geo        time gprop category
## 1   2017-01-01   41 machine learning  world today+5-y    web         0
```

```
## 2    2017-01-08   47 machine learning world today+5-y    web        0
## 3    2017-01-15   51 machine learning world today+5-y    web        0
## 4    2017-01-22   50 machine learning world today+5-y    web        0
## 5    2017-01-29   48 machine learning world today+5-y    web        0
## 6    2017-02-05   47 machine learning world today+5-y    web        0
## 7    2017-02-12   48 machine learning world today+5-y    web        0
## 8    2017-02-19   49 machine learning world today+5-y    web        0
## 9    2017-02-26   50 machine learning world today+5-y    web        0
## 10   2017-03-05   53 machine learning world today+5-y    web        0
## 11   2017-03-12   52 machine learning world today+5-y    web        0
## 12   2017-03-19   53 machine learning world today+5-y    web        0
## 13   2017-03-26   58 machine learning world today+5-y    web        0
## 14   2017-04-02   54 machine learning world today+5-y    web        0
## 15   2017-04-09   55 machine learning world today+5-y    web        0
## 16   2017-04-16   51 machine learning world today+5-y    web        0
## 17   2017-04-23   57 machine learning world today+5-y    web        0
## 18   2017-04-30   52 machine learning world today+5-y    web        0
## 19   2017-05-07   56 machine learning world today+5-y    web        0
## 20   2017-05-14   63 machine learning world today+5-y    web        0
## 21   2017-05-21   57 machine learning world today+5-y    web        0
## 22   2017-05-28   56 machine learning world today+5-y    web        0
## 23   2017-06-04   63 machine learning world today+5-y    web        0
## 24   2017-06-11   61 machine learning world today+5-y    web        0
## 25   2017-06-18   65 machine learning world today+5-y    web        0
## 26   2017-06-25   58 machine learning world today+5-y    web        0
## 27   2017-07-02   53 machine learning world today+5-y    web        0
## 28   2017-07-09   58 machine learning world today+5-y    web        0
## 29   2017-07-16   52 machine learning world today+5-y    web        0
## 30   2017-07-23   58 machine learning world today+5-y    web        0
## 31   2017-07-30   61 machine learning world today+5-y    web        0
## 32   2017-08-06   58 machine learning world today+5-y    web        0
## 33   2017-08-13   56 machine learning world today+5-y    web        0
## 34   2017-08-20   55 machine learning world today+5-y    web        0
## 35   2017-08-27   55 machine learning world today+5-y    web        0
## 36   2017-09-03   65 machine learning world today+5-y    web        0
## 37   2017-09-10   62 machine learning world today+5-y    web        0
## 38   2017-09-17   67 machine learning world today+5-y    web        0
## 39   2017-09-24   63 machine learning world today+5-y    web        0
## 40   2017-10-01   64 machine learning world today+5-y    web        0
## 41   2017-10-08   69 machine learning world today+5-y    web        0
## 42   2017-10-15   64 machine learning world today+5-y    web        0
## 43   2017-10-22   75 machine learning world today+5-y    web        0
## 44   2017-10-29   71 machine learning world today+5-y    web        0
## 45   2017-11-05   75 machine learning world today+5-y    web        0
## 46   2017-11-12   67 machine learning world today+5-y    web        0
## 47   2017-11-19   62 machine learning world today+5-y    web        0
## 48   2017-11-26   74 machine learning world today+5-y    web        0
## 49   2017-12-03   75 machine learning world today+5-y    web        0
## 50   2017-12-10   68 machine learning world today+5-y    web        0
## 51   2017-12-17   68 machine learning world today+5-y    web        0
```

```
## 52  2017-12-24   54 machine learning world today+5-y    web          0
## 53  2017-12-31   62 machine learning world today+5-y    web          0
## 54  2018-01-07   68 machine learning world today+5-y    web          0
## 55  2018-01-14   69 machine learning world today+5-y    web          0
## 56  2018-01-21   69 machine learning world today+5-y    web          0
## 57  2018-01-28   74 machine learning world today+5-y    web          0
## 58  2018-02-04   70 machine learning world today+5-y    web          0
## 59  2018-02-11   72 machine learning world today+5-y    web          0
## 60  2018-02-18   65 machine learning world today+5-y    web          0
## 61  2018-02-25   77 machine learning world today+5-y    web          0
## 62  2018-03-04   78 machine learning world today+5-y    web          0
## 63  2018-03-11   72 machine learning world today+5-y    web          0
## 64  2018-03-18   77 machine learning world today+5-y    web          0
## 65  2018-03-25   81 machine learning world today+5-y    web          0
## 66  2018-04-01   76 machine learning world today+5-y    web          0
## 67  2018-04-08   77 machine learning world today+5-y    web          0
## 68  2018-04-15   77 machine learning world today+5-y    web          0
## 69  2018-04-22   75 machine learning world today+5-y    web          0
## 70  2018-04-29   71 machine learning world today+5-y    web          0
## 71  2018-05-06   78 machine learning world today+5-y    web          0
## 72  2018-05-13   74 machine learning world today+5-y    web          0
## 73  2018-05-20   74 machine learning world today+5-y    web          0
## 74  2018-05-27   75 machine learning world today+5-y    web          0
## 75  2018-06-03   75 machine learning world today+5-y    web          0
## 76  2018-06-10   73 machine learning world today+5-y    web          0
## 77  2018-06-17   79 machine learning world today+5-y    web          0
## 78  2018-06-24   73 machine learning world today+5-y    web          0
## 79  2018-07-01   63 machine learning world today+5-y    web          0
## 80  2018-07-08   72 machine learning world today+5-y    web          0
## 81  2018-07-15   68 machine learning world today+5-y    web          0
## 82  2018-07-22   73 machine learning world today+5-y    web          0
## 83  2018-07-29   69 machine learning world today+5-y    web          0
## 84  2018-08-05   78 machine learning world today+5-y    web          0
## 85  2018-08-12   71 machine learning world today+5-y    web          0
## 86  2018-08-19   75 machine learning world today+5-y    web          0
## 87  2018-08-26   73 machine learning world today+5-y    web          0
## 88  2018-09-02   78 machine learning world today+5-y    web          0
## 89  2018-09-09   76 machine learning world today+5-y    web          0
## 90  2018-09-16   83 machine learning world today+5-y    web          0
## 91  2018-09-23   78 machine learning world today+5-y    web          0
## 92  2018-09-30   81 machine learning world today+5-y    web          0
## 93  2018-10-07   78 machine learning world today+5-y    web          0
## 94  2018-10-14   83 machine learning world today+5-y    web          0
## 95  2018-10-21   82 machine learning world today+5-y    web          0
## 96  2018-10-28   75 machine learning world today+5-y    web          0
## 97  2018-11-04   72 machine learning world today+5-y    web          0
## 98  2018-11-11   88 machine learning world today+5-y    web          0
## 99  2018-11-18   76 machine learning world today+5-y    web          0
## 100 2018-11-25   81 machine learning world today+5-y    web          0
## 101 2018-12-02   88 machine learning world today+5-y    web          0
```

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## 102 2018-12-09   78 machine learning world today+5-y     web           0
## 103 2018-12-16   81 machine learning world today+5-y     web           0
## 104 2018-12-23   58 machine learning world today+5-y     web           0
## 105 2018-12-30   61 machine learning world today+5-y     web           0
## 106 2019-01-06   80 machine learning world today+5-y     web           0
## 107 2019-01-13   79 machine learning world today+5-y     web           0
## 108 2019-01-20   79 machine learning world today+5-y     web           0
## 109 2019-01-27   80 machine learning world today+5-y     web           0
## 110 2019-02-03   91 machine learning world today+5-y     web           0
## 111 2019-02-10   85 machine learning world today+5-y     web           0
## 112 2019-02-17   85 machine learning world today+5-y     web           0
## 113 2019-02-24   86 machine learning world today+5-y     web           0
## 114 2019-03-03   83 machine learning world today+5-y     web           0
## 115 2019-03-10   85 machine learning world today+5-y     web           0
## 116 2019-03-17   87 machine learning world today+5-y     web           0
## 117 2019-03-24   86 machine learning world today+5-y     web           0
## 118 2019-03-31   83 machine learning world today+5-y     web           0
## 119 2019-04-07   87 machine learning world today+5-y     web           0
## 120 2019-04-14   75 machine learning world today+5-y     web           0
## 121 2019-04-21   80 machine learning world today+5-y     web           0
## 122 2019-04-28   85 machine learning world today+5-y     web           0
## 123 2019-05-05   85 machine learning world today+5-y     web           0
## 124 2019-05-12   92 machine learning world today+5-y     web           0
## 125 2019-05-19   86 machine learning world today+5-y     web           0
## 126 2019-05-26   76 machine learning world today+5-y     web           0
## 127 2019-06-02   84 machine learning world today+5-y     web           0
## 128 2019-06-09   86 machine learning world today+5-y     web           0
## 129 2019-06-16   82 machine learning world today+5-y     web           0
## 130 2019-06-23   88 machine learning world today+5-y     web           0
## 131 2019-06-30   79 machine learning world today+5-y     web           0
## 132 2019-07-07   82 machine learning world today+5-y     web           0
## 133 2019-07-14   88 machine learning world today+5-y     web           0
## 134 2019-07-21   81 machine learning world today+5-y     web           0
## 135 2019-07-28   80 machine learning world today+5-y     web           0
## 136 2019-08-04   84 machine learning world today+5-y     web           0
## 137 2019-08-11   78 machine learning world today+5-y     web           0
## 138 2019-08-18   80 machine learning world today+5-y     web           0
## 139 2019-08-25   82 machine learning world today+5-y     web           0
## 140 2019-09-01   89 machine learning world today+5-y     web           0
## 141 2019-09-08   90 machine learning world today+5-y     web           0
## 142 2019-09-15   90 machine learning world today+5-y     web           0
## 143 2019-09-22   91 machine learning world today+5-y     web           0
## 144 2019-09-29   86 machine learning world today+5-y     web           0
## 145 2019-10-06   90 machine learning world today+5-y     web           0
## 146 2019-10-13   90 machine learning world today+5-y     web           0
## 147 2019-10-20   86 machine learning world today+5-y     web           0
## 148 2019-10-27   80 machine learning world today+5-y     web           0
## 149 2019-11-03   95 machine learning world today+5-y     web           0
## 150 2019-11-10   95 machine learning world today+5-y     web           0
## 151 2019-11-17   95 machine learning world today+5-y     web           0
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## 152 2019-11-24    82 machine learning world today+5-y    web        0
## 153 2019-12-01    95 machine learning world today+5-y    web        0
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## 155 2019-12-15    88 machine learning world today+5-y    web        0
## 156 2019-12-22    67 machine learning world today+5-y    web        0
## 157 2019-12-29    68 machine learning world today+5-y    web        0
## 158 2020-01-05    92 machine learning world today+5-y    web        0
## 159 2020-01-12    93 machine learning world today+5-y    web        0
## 160 2020-01-19    93 machine learning world today+5-y    web        0
## 161 2020-01-26    91 machine learning world today+5-y    web        0
## 162 2020-02-02    89 machine learning world today+5-y    web        0
## 163 2020-02-09    92 machine learning world today+5-y    web        0
## 164 2020-02-16    92 machine learning world today+5-y    web        0
## 165 2020-02-23   100 machine learning world today+5-y    web        0
## 166 2020-03-01    90 machine learning world today+5-y    web        0
## 167 2020-03-08    82 machine learning world today+5-y    web        0
## 168 2020-03-15    68 machine learning world today+5-y    web        0
## 169 2020-03-22    70 machine learning world today+5-y    web        0
## 170 2020-03-29    74 machine learning world today+5-y    web        0
## 171 2020-04-05    80 machine learning world today+5-y    web        0
## 172 2020-04-12    82 machine learning world today+5-y    web        0
## 173 2020-04-19    83 machine learning world today+5-y    web        0
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## 175 2020-05-03    83 machine learning world today+5-y    web        0
## 176 2020-05-10    85 machine learning world today+5-y    web        0
## 177 2020-05-17    86 machine learning world today+5-y    web        0
## 178 2020-05-24    84 machine learning world today+5-y    web        0
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## 180 2020-06-07    79 machine learning world today+5-y    web        0
## 181 2020-06-14    84 machine learning world today+5-y    web        0
## 182 2020-06-21    81 machine learning world today+5-y    web        0
## 183 2020-06-28    80 machine learning world today+5-y    web        0
## 184 2020-07-05    81 machine learning world today+5-y    web        0
## 185 2020-07-12    84 machine learning world today+5-y    web        0
## 186 2020-07-19    79 machine learning world today+5-y    web        0
## 187 2020-07-26    79 machine learning world today+5-y    web        0
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## 191 2020-08-23    75 machine learning world today+5-y    web        0
## 192 2020-08-30    82 machine learning world today+5-y    web        0
## 193 2020-09-06    86 machine learning world today+5-y    web        0
## 194 2020-09-13    86 machine learning world today+5-y    web        0
## 195 2020-09-20    83 machine learning world today+5-y    web        0
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## 199 2020-10-18    70 machine learning world today+5-y    web        0
## 200 2020-10-25    68 machine learning world today+5-y    web        0
## 201 2020-11-01    63 machine learning world today+5-y    web        0
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## 202 2020-11-08    68 machine learning world today+5-y    web         0
## 203 2020-11-15    72 machine learning world today+5-y    web         0
## 204 2020-11-22    70 machine learning world today+5-y    web         0
## 205 2020-11-29    74 machine learning world today+5-y    web         0
## 206 2020-12-06    67 machine learning world today+5-y    web         0
## 207 2020-12-13    74 machine learning world today+5-y    web         0
## 208 2020-12-20    56 machine learning world today+5-y    web         0
## 209 2020-12-27    53 machine learning world today+5-y    web         0
## 210 2021-01-03    62 machine learning world today+5-y    web         0
## 211 2021-01-10    65 machine learning world today+5-y    web         0
## 212 2021-01-17    70 machine learning world today+5-y    web         0
## 213 2021-01-24    66 machine learning world today+5-y    web         0
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## 216 2021-02-14    66 machine learning world today+5-y    web         0
## 217 2021-02-21    78 machine learning world today+5-y    web         0
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## 219 2021-03-07    67 machine learning world today+5-y    web         0
## 220 2021-03-14    79 machine learning world today+5-y    web         0
## 221 2021-03-21    76 machine learning world today+5-y    web         0
## 222 2021-03-28    67 machine learning world today+5-y    web         0
## 223 2021-04-04    73 machine learning world today+5-y    web         0
## 224 2021-04-11    72 machine learning world today+5-y    web         0
## 225 2021-04-18    74 machine learning world today+5-y    web         0
## 226 2021-04-25    78 machine learning world today+5-y    web         0
## 227 2021-05-02    72 machine learning world today+5-y    web         0
## 228 2021-05-09    73 machine learning world today+5-y    web         0
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## 240 2021-08-01    67 machine learning world today+5-y    web         0
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## 242 2021-08-15    68 machine learning world today+5-y    web         0
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## 246 2021-09-12    77 machine learning world today+5-y    web         0
## 247 2021-09-19    76 machine learning world today+5-y    web         0
## 248 2021-09-26    74 machine learning world today+5-y    web         0
## 249 2021-10-03    58 machine learning world today+5-y    web         0
## 250 2021-10-10    53 machine learning world today+5-y    web         0
## 251 2021-10-17    55 machine learning world today+5-y    web         0
```

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## 252 2021-10-24    54 machine learning world today+5-y    web         0
## 253 2021-10-31    54 machine learning world today+5-y    web         0
## 254 2021-11-07    59 machine learning world today+5-y    web         0
## 255 2021-11-14    60 machine learning world today+5-y    web         0
## 256 2021-11-21    57 machine learning world today+5-y    web         0
## 257 2021-11-28    60 machine learning world today+5-y    web         0
## 258 2021-12-05    57 machine learning world today+5-y    web         0
## 259 2021-12-12    59 machine learning world today+5-y    web         0
## 260 2021-12-19    48 machine learning world today+5-y    web         0
## 261 2021-12-26    43 machine learning world today+5-y    web         0

over_time %>%
  ggplot( aes(x=as.Date(date), y=hits)) +
    geom_line(color="#69b3a2") +
    ylim(0,110) +
    annotate(geom="text", x=as.Date("2017-01-01"), y=2089,
             label="Bitcoin price reached 20k $\nat the end of 2017") +
    annotate(geom="point", x=as.Date("2017-01-17"), y=2089, size=20,
shape=21, fill="transparent") +
    geom_hline(yintercept=90, color="orange", size=.5) +
    theme_ipsum()

## Warning: Removed 1 rows containing missing values (geom_text).

## Warning: Removed 1 rows containing missing values (geom_point).

## Warning in grid.Call(C_stringMetric, as.graphicsAnnot(x$label)): font
family not
## found in Windows font database

## Warning in grid.Call(C_stringMetric, as.graphicsAnnot(x$label)): font
family not
## found in Windows font database

## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
font
## family not found in Windows font database

## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
font
## family not found in Windows font database

## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
font
## family not found in Windows font database

## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
font
## family not found in Windows font database
```
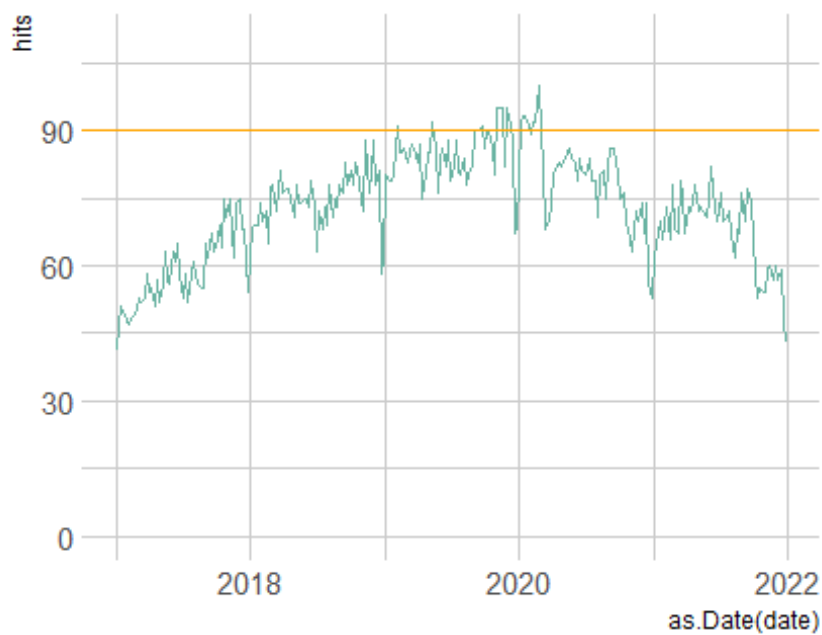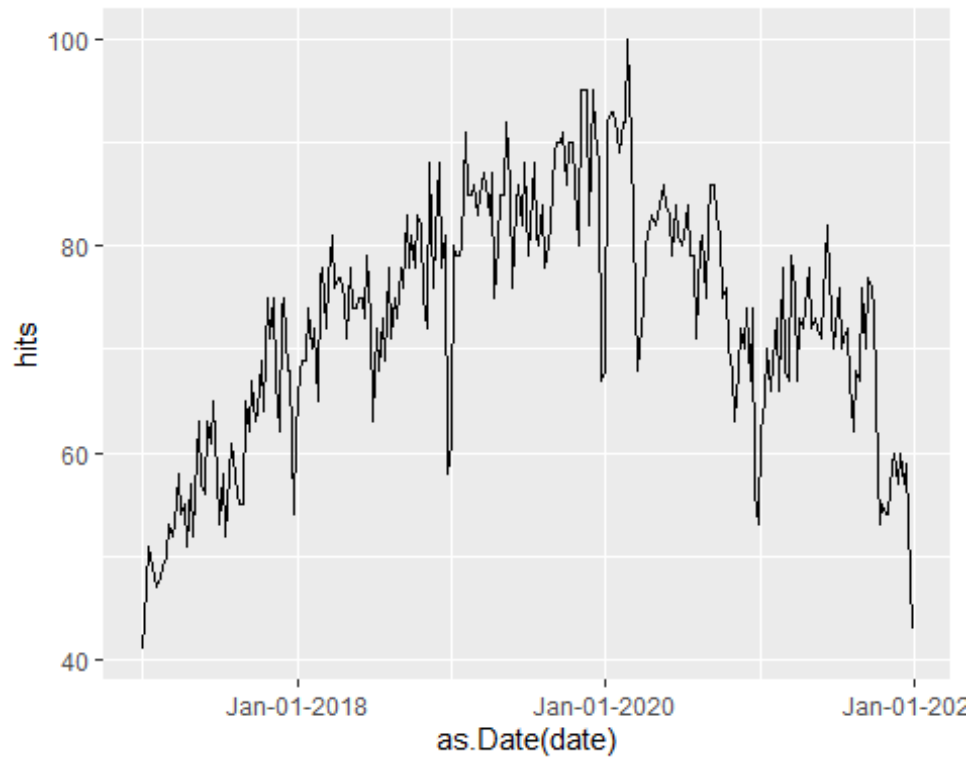
```
## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
font
## family not found in Windows font database

## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, :
font
## family not found in Windows font database

## Warning in grid.Call.graphics(C_text, as.graphicsAnnot(x$label), x$x, x$y,
:
## font family not found in Windows font database
```
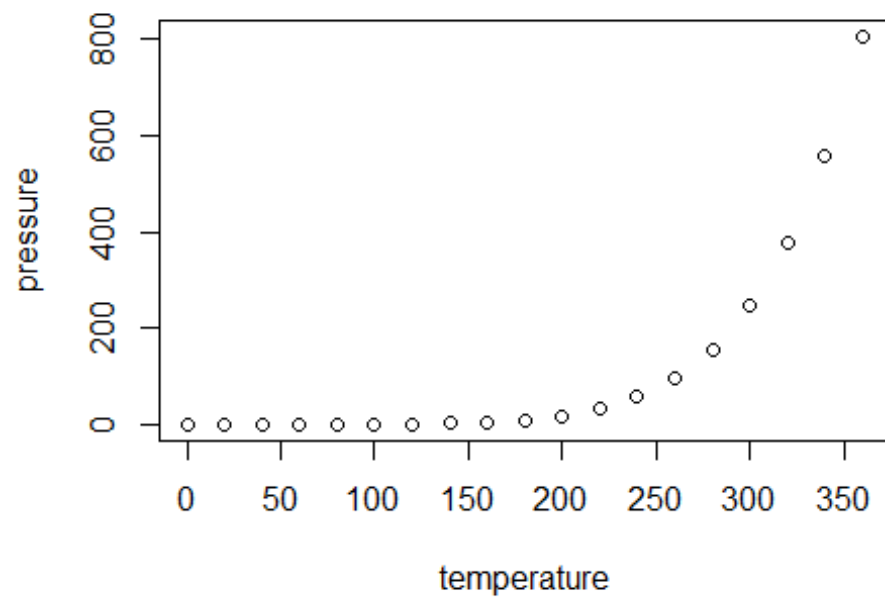


```
ggplot(over_time, aes(x=as.Date(date), y=hits)) +
  geom_line() + scale_x_date(date_labels = "%b-%d-%Y")
```

```
typeof(as.Date(over_time$date))

## [1] "double"

summary(cars)

##      speed           dist
##  Min.   : 4.0   Min.   :  2.00
##  1st Qu.:12.0   1st Qu.: 26.00
##  Median :15.0   Median : 36.00
##  Mean   :15.4   Mean   : 42.98
##  3rd Qu.:19.0   3rd Qu.: 56.00
##  Max.   :25.0   Max.   :120.00
```

Including Plots

You can also embed plots, for example:

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