18F-0240_7A_GoogleTrendAnalytic

18F-0240

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R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

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:

Google Trend Analysis

Github link: "https://github.com/HuzaifahZia/Google-Search-Analytics-/blob/main/18F-0240_7A_GoogleTrendsAnalytics.Rmd" Installing Libraries

```
library(gtrendsR)
```

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

```
library(ggplot2)
```

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

```
library(scales)
```

-Getting data Searches for Machine Learning by region -reviewing data -omiting unwanted columns -omiting NAs -reviewing data's first 10 rows

```
data = gtrends(keyword = "Machine Learning")$interest_by_country
head(data)
```

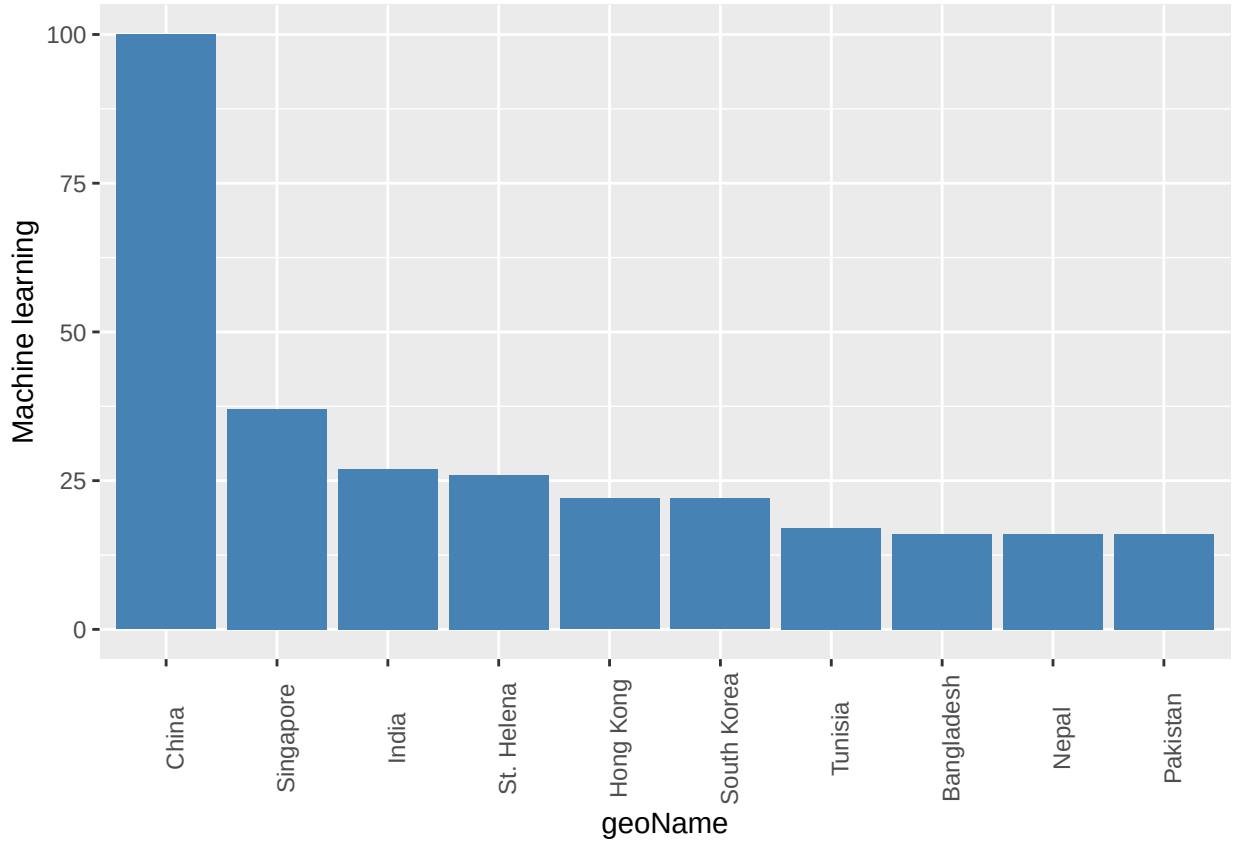
```
##     location hits          keyword   geo gprop
## 1      China  100 Machine Learning world   web
## 2  Singapore   37 Machine Learning world   web
## 3      India   27 Machine Learning world   web
## 4     Rwanda   NA Machine Learning world   web
## 5   Ethiopia   NA Machine Learning world   web
## 6 St. Helena   26 Machine Learning world   web
```

```
data = data[-c(3:5)]
data = na.omit(data)
head(data,10)
```

```
##       location hits
## 1        China  100
## 2    Singapore   37
## 3        India   27
## 6   St. Helena   26
## 7  South Korea   22
## 8    Hong Kong   22
## 10     Tunisia   17
## 11    Pakistan   16
## 12       Nepal   16
## 13  Bangladesh   16
```

-plotting a bar graph for reviewed data

```
ggplot(data=head(data,10), aes(x=reorder(location,-hits), y=hits)) +
  geom_bar(stat="identity", fill="steelblue")+ labs(x = "geoName", y = "Machine learning", color = "Leg
theme(axis.text.x = element_text(angle = 90))
```



-Getting data Number Searches for Machine Learning over time -omiting unwanted columns

```
data = gtrends(keyword = "Machine Learning")$interest_over_time
data = data[-c(3:7)]
```

-plotting a line graph for retrived data

```
ggplot(data=data,
       aes(x=date, y=hits)) +
  geom_line(stat="identity",
            color="steelblue")+
  labs(title="Total Google Searches for Machine Learning",
       x = "Year",
       y = "Total Count",
       color = "Legend Title\n")+
  theme_minimal()
```