

Loading libraries

```
library(jsonlite)
library(tidyverse)
library(patchwork)
```

Reading Input json using jsonlite package

```
android <- jsonlite::fromJSON("MyActivity.json")
```

Glimpse of the dataframe

```
glimpse(android)

## Observations: 37,773
## Variables: 5
## $ header      "Sense Home Launcher-News,Theme", "Google Chrome: Fast & S...
## $ title       "Used Sense Home Launcher-News,Theme", "Used Google Chrome...
## $ titleUrl    "https://play.google.com/store/apps/details?id=com.htc.lau...
## $ time        "2020-05-06T15:50:53.817Z", "2020-05-06T15:47:53.613Z", "2...
## $ products    ["Android", "Android", "Android", "Android", "Android", "...
```

Data Preprocessing – Date Time

```
android$time <- parse_datetime(android$time, locale = locale(tz =
"Asia/Calcutta"))

summary(android$time)

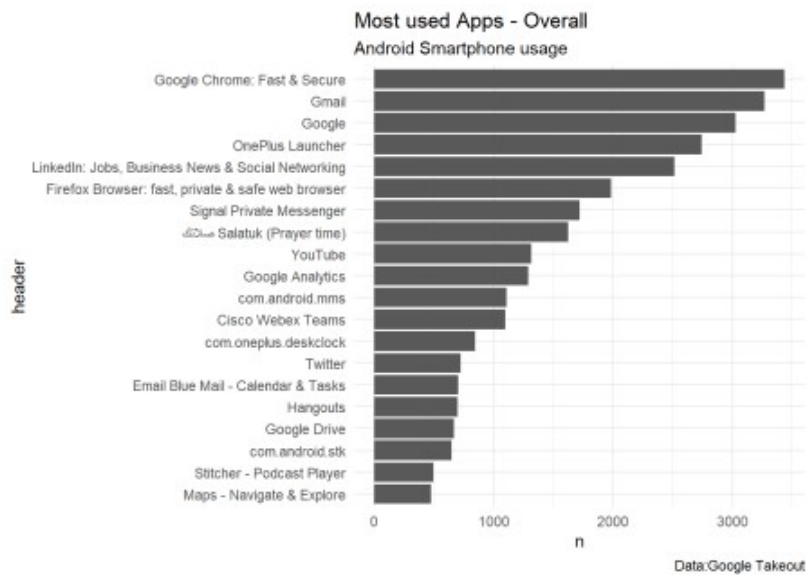
##              Min.              1st Qu.              Median
## "2017-01-06 16:08:01" "2019-07-21 18:30:18" "2019-10-14 19:53:11"
##              Mean              3rd Qu.              Max.
## "2019-10-04 14:01:15" "2020-01-17 17:10:47" "2020-05-06 21:20:53"

android %>%
  mutate(date = lubridate::date(time),
         year = lubridate::year(time)) -> android

android_latest <- android %>%
  filter(year %in% c(2019,2020))
```

Number of Unique Apps

```
android_latest %>%
  count(header, sort = TRUE) %>%
  head(20) %>%
  mutate(header = fct_reorder(header, n)) %>%
  ggplot() + geom_col(aes(y = header, x = n)) +
  theme_minimal() +
  labs(title = "Most used Apps - Overall",
       subtitle = "Android Smartphone usage",
       caption = "Data:Google Takeout")
```

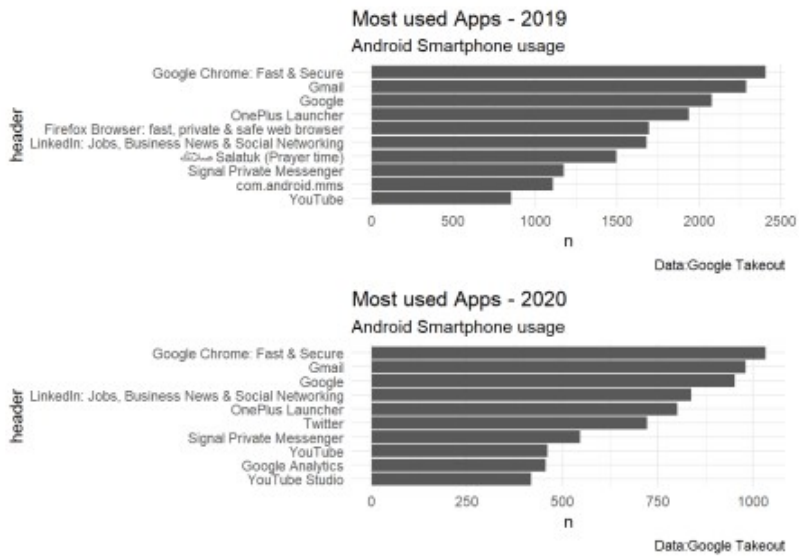


Apps Comparison

```
android_latest %>%
  filter(year %in% '2019') %>%
  group_by(year, header) %>%
  summarise(n = n()) %>%
  arrange(desc(n)) %>%
  head(10) %>% #View()
  mutate(header = fct_reorder(header, n)) %>%
  ggplot() + geom_col(aes(y = header, x = n)) +
  # facet_wrap(~year, scales = "free") +
  theme_minimal() +
  labs(title = "Most used Apps - 2019",
        subtitle = "Android Smartphone usage",
        caption = "Data:Google Takeout") -> p2019
```

```
android_latest %>%
  filter(year %in% '2020') %>%
  group_by(year, header) %>%
  summarise(n = n()) %>%
  arrange(desc(n)) %>%
  head(10) %>% #View()
  mutate(header = fct_reorder(header, n)) %>%
  ggplot() + geom_col(aes(y = header, x = n)) +
  # facet_wrap(~year, scales = "free") +
  theme_minimal() +
  labs(title = "Most used Apps - 2020",
        subtitle = "Android Smartphone usage",
        caption = "Data:Google Takeout") -> p2020
```

```
p2019 / p2020
```



Usage Timeline

```
android_latest %>%
```

```
count(date) %>%
```

```
ggplot() + geom_line(aes(date, n))
```

