Module 5 - Data Visualization

Rsquared Academy

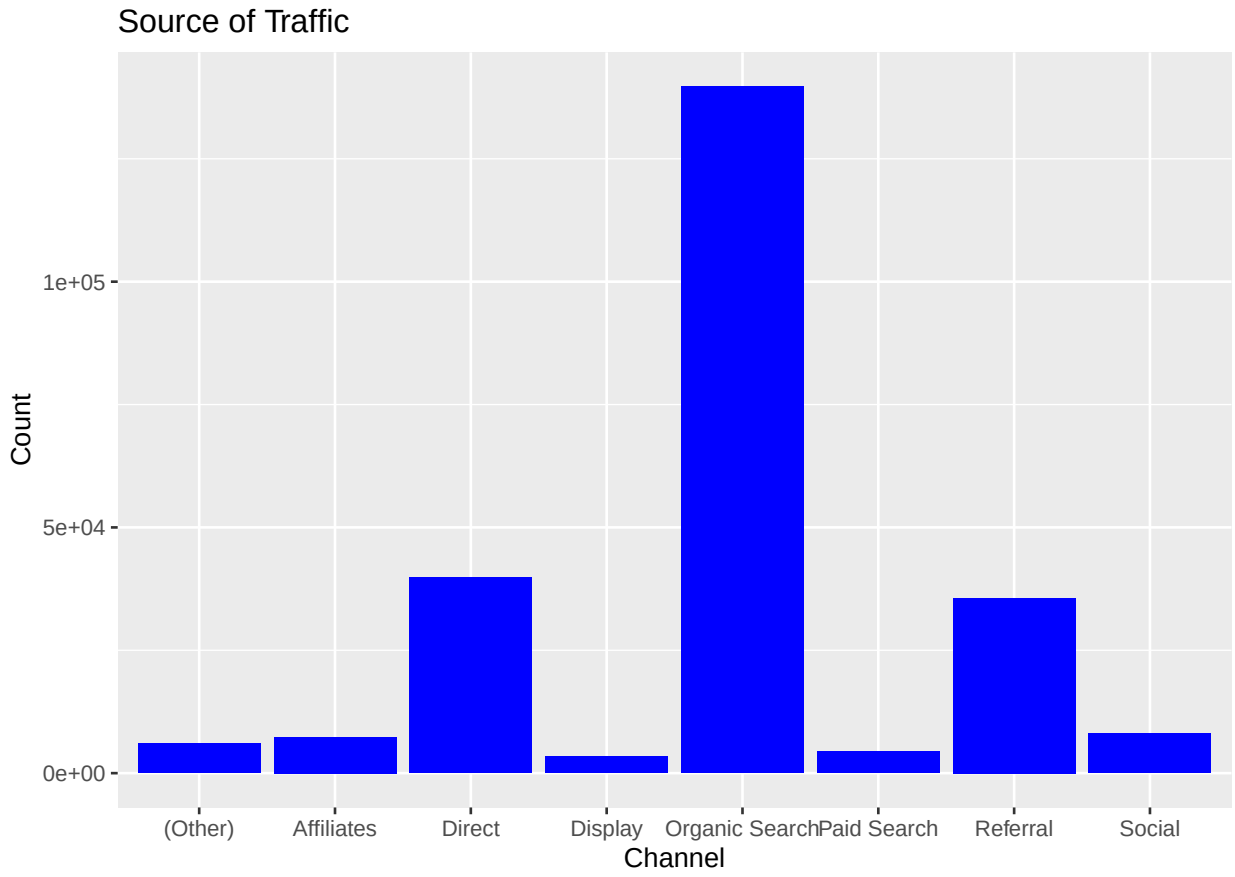
2021-03-05

Import Data & Load Libraries

```
data <- readRDS("analytics.rds")
library(ggplot2)
library(dplyr)
library(tibble)
library(ggmosaic)
library(ggpubr)
library(plotrix)
library(magrittr)
library(forcats)
```

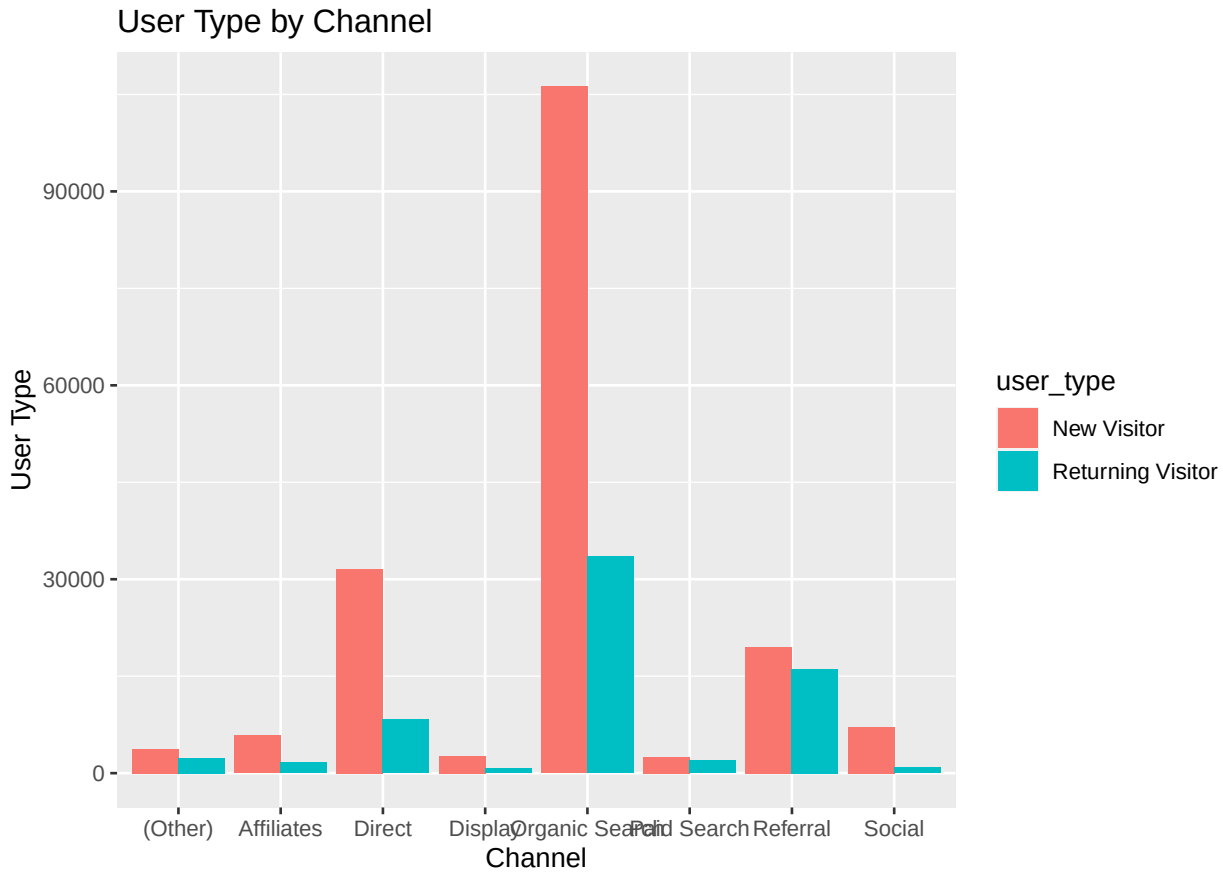
1. Bar plot of `channel`

```
ggplot(data) +
  geom_bar(aes(x = channel), fill = "blue") +
    ggtitle("Source of Traffic") +
    xlab("Channel") + ylab("Count")
```



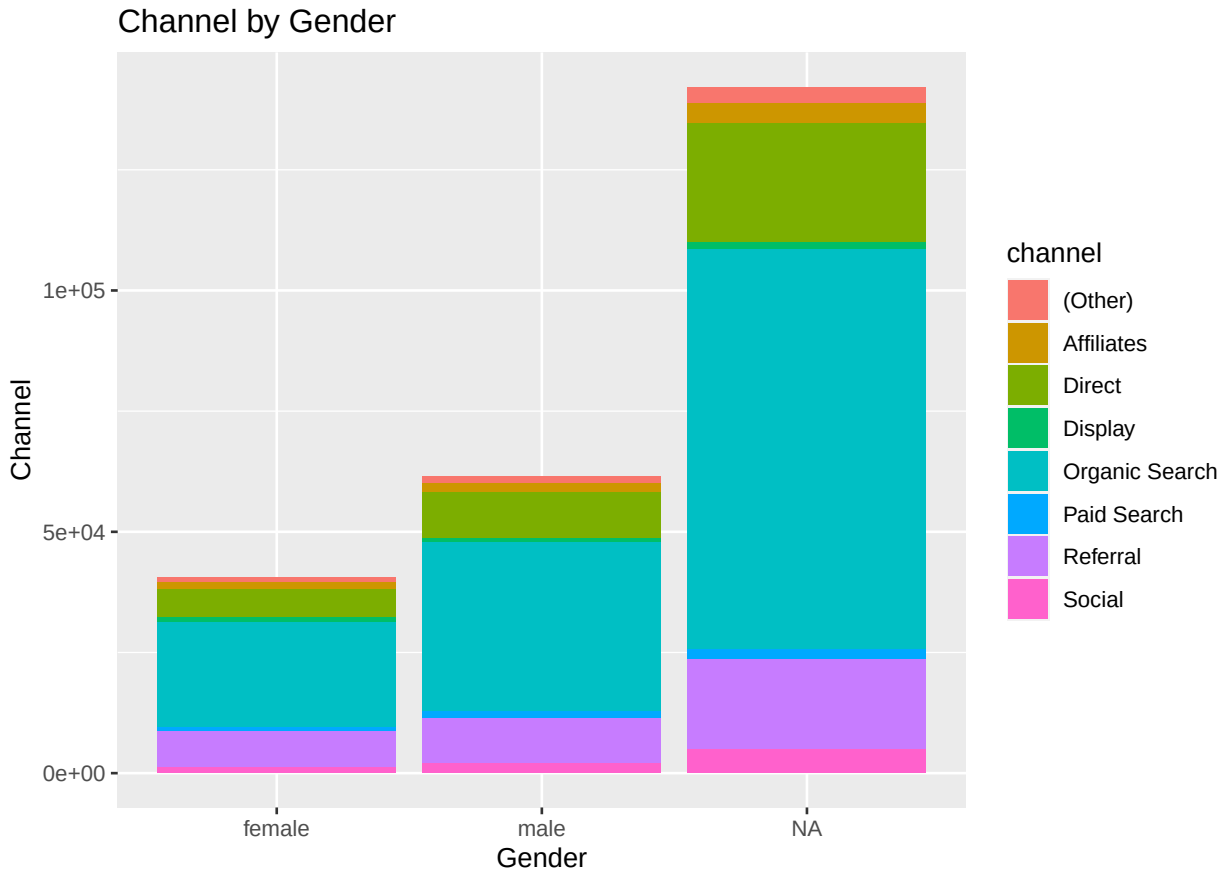
2. Display grouped bar plot of `user_type` by `channel`

```
ggplot(data) +
  geom_bar(aes(x = channel, fill = user_type), position = "dodge") +
    ggtitle("User Type by Channel") +
    xlab("Channel") + ylab("User Type")
```



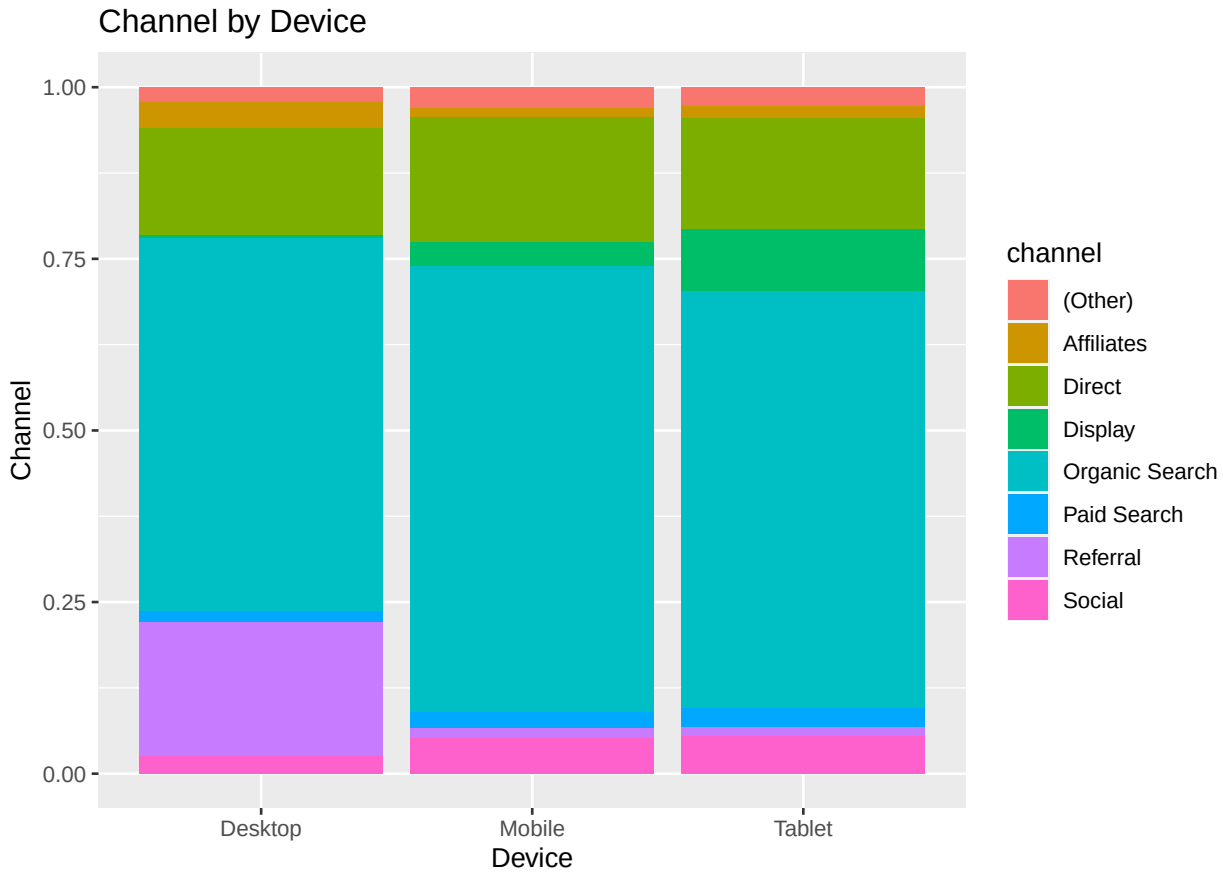
3. Display stacked bar plot of `channel` by `gender`

```
ggplot(data) +
  geom_bar(aes(x = gender, fill = channel)) +
    ggtitle("Channel by Gender") +
    xlab("Gender") + ylab("Channel")
```



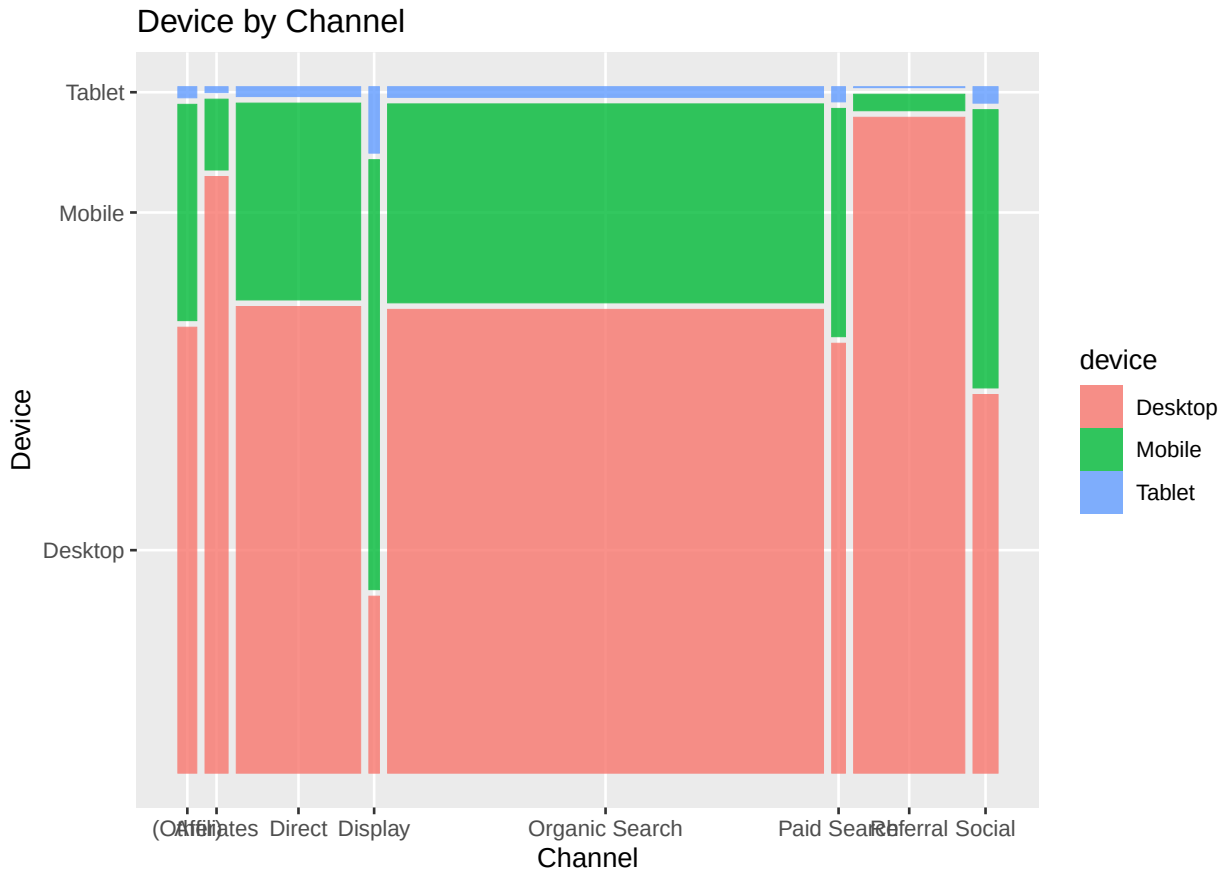
4. Display proportional bar plot of `channel` by `device`

```
data %>%
  select(device, channel) %>%
  table() %>%
  tibble::as_tibble() %>%
  ggplot(aes(x = device, y = n, fill = channel)) +
  geom_bar(stat = "identity", position = "fill") +
  ggtitle("Channel by Device") +
  xlab("Device") + ylab("Channel")
```



5. Display mosaic plot of `device` by `channel`

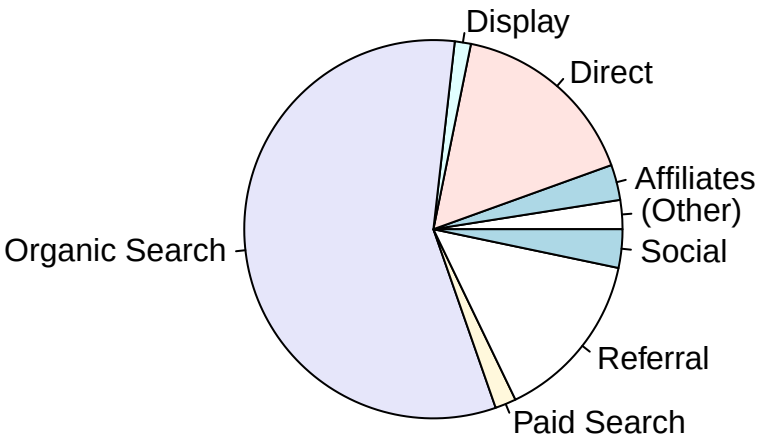
```
ggplot(data) +
  geom_mosaic(aes(x = product(device, channel), fill = device)) +
    ggtitle("Device by Channel") +
    xlab("Channel") + ylab("Device")
```



6. Display pie or donut chart of `channel`

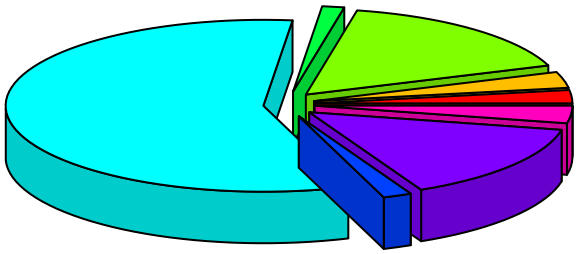
```
data %>%
  pull(channel) %>%
  table() %>%
  pie()
```

6.1 Pie Chart



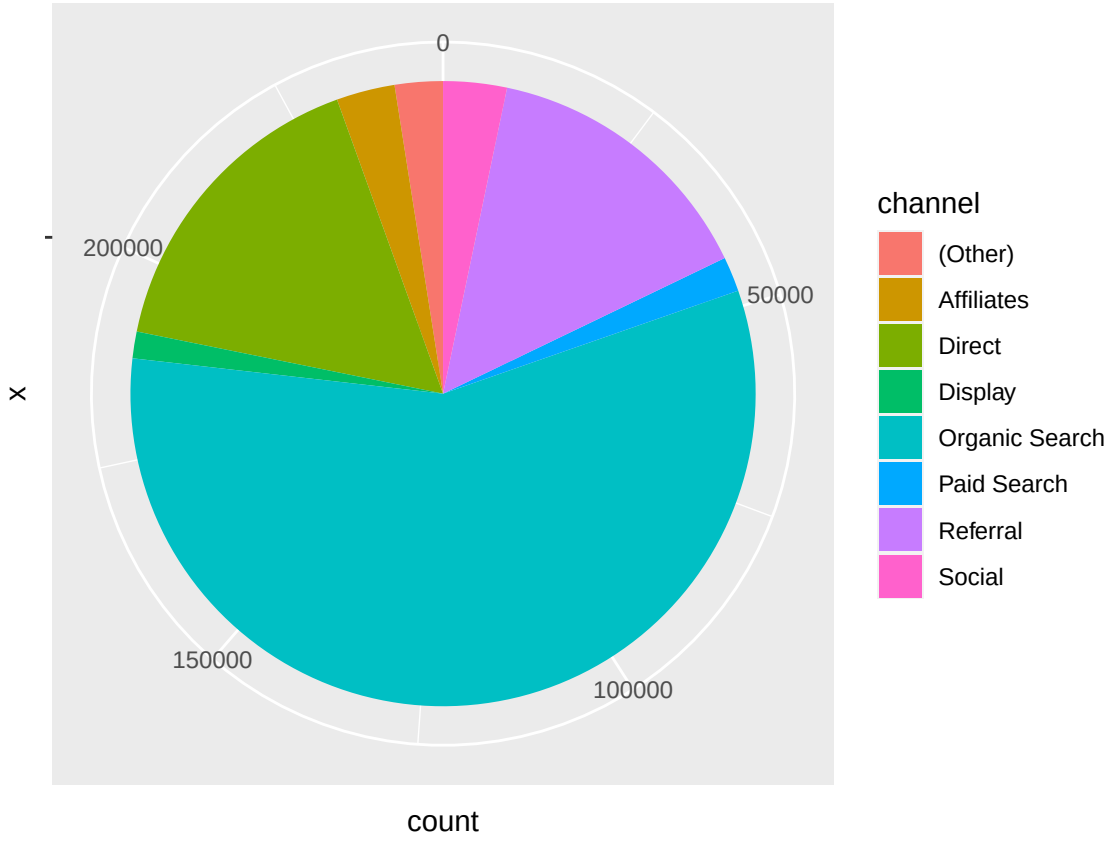
```
data %>%
  pull(channel) %>%
  table() %>%
  pie3D(explode = 0.1)
```

6.2 3D Pie Chart



```
data %>%
  pull(channel) %>%
  fct_count() %>%
  rename(channel = f, count = n) %>%
  ggplot() +
  geom_bar(aes(x = "", y = count, fill = channel),
           width = 1, stat = "identity") +
  coord_polar("y", start = 0)
```

6.3 Pie Chart (ggplot2)



```
data %>%
  pull(channel) %>%
  fct_count() %>%
  rename(channel = f, count = n) %>%
  ggdonutchart("count", label = "channel", fill = "channel", color = "white")
```

6.4 Donut Chart