

5.RESULT:

```
> facebook_data <- read.csv("C:\\Users\\vyshn\\OneDrive\\Desktop\\pseudo_
facebook.csv")
```

```
> summary(facebook_data)
```

| userid | | age | | dob_day | |
|---------|----------|---------|---------|---------|--------|
| Min. | :1000008 | Min. | : 13.00 | Min. | : 1.00 |
| 1st Qu. | :1298806 | 1st Qu. | : 20.00 | 1st Qu. | : 7.00 |
| Median | :1596148 | Median | : 28.00 | Median | :14.00 |
| Mean | :1597045 | Mean | : 37.28 | Mean | :14.53 |
| 3rd Qu. | :1895744 | 3rd Qu. | : 50.00 | 3rd Qu. | :22.00 |
| Max. | :2193542 | Max. | :113.00 | Max. | :31.00 |

| dob_year | | dob_month | | gender | |
|----------|-------|-----------|---------|--------|------------|
| Min. | :1900 | Min. | : 1.000 | Length | :99003 |
| 1st Qu. | :1963 | 1st Qu. | : 3.000 | Class | :character |
| Median | :1985 | Median | : 6.000 | Mode | :character |
| Mean | :1976 | Mean | : 6.283 | | |
| 3rd Qu. | :1993 | 3rd Qu. | : 9.000 | | |
| Max. | :2000 | Max. | :12.000 | | |

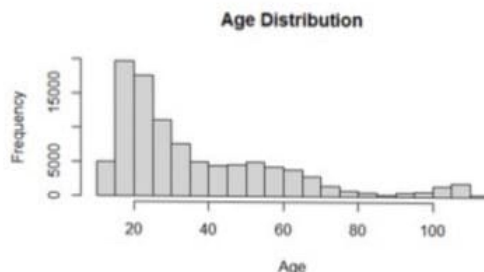
| tenure | | friend_count | | friendships_initiated | |
|---------|---------|--------------|---------|-----------------------|---------|
| Min. | : 0.0 | Min. | : 0.0 | Min. | : 0.0 |
| 1st Qu. | : 226.0 | 1st Qu. | : 31.0 | 1st Qu. | : 17.0 |
| Median | : 412.0 | Median | : 82.0 | Median | : 46.0 |
| Mean | : 537.9 | Mean | : 196.4 | Mean | : 107.5 |
| 3rd Qu. | : 675.0 | 3rd Qu. | : 206.0 | 3rd Qu. | : 117.0 |
| Max. | :3139.0 | Max. | :4923.0 | Max. | :4144.0 |
| NA's | :2 | | | | |

| likes | | likes_received | | mobile_likes | |
|---------|----------|----------------|-----------|--------------|----------|
| Min. | : 0.0 | Min. | : 0.0 | Min. | : 0.0 |
| 1st Qu. | : 1.0 | 1st Qu. | : 1.0 | 1st Qu. | : 0.0 |
| Median | : 11.0 | Median | : 8.0 | Median | : 4.0 |
| Mean | : 156.1 | Mean | : 142.7 | Mean | : 106.1 |
| 3rd Qu. | : 81.0 | 3rd Qu. | : 59.0 | 3rd Qu. | : 46.0 |
| Max. | :25111.0 | Max. | :261197.0 | Max. | :25111.0 |

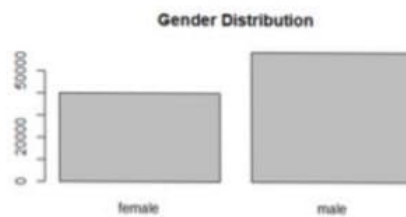
| mobile_likes_received | | www_likes | | www_likes_received | |
|-----------------------|------------|-----------|-----------|--------------------|------------|
| Min. | : 0.00 | Min. | : 0.00 | Min. | : 0.00 |
| 1st Qu. | : 0.00 | 1st Qu. | : 0.00 | 1st Qu. | : 0.00 |
| Median | : 4.00 | Median | : 0.00 | Median | : 2.00 |
| Mean | : 84.12 | Mean | : 49.96 | Mean | : 58.57 |
| 3rd Qu. | : 33.00 | 3rd Qu. | : 7.00 | 3rd Qu. | : 20.00 |
| Max. | :138561.00 | Max. | :14865.00 | Max. | :129953.00 |

```
> facebook_data$DOB <- as.Date(paste(facebook_data$dob_year, "-", facebook_
k_data$dob_month, "-", facebook_data$dob_day), format="%Y-%m-%d")
```

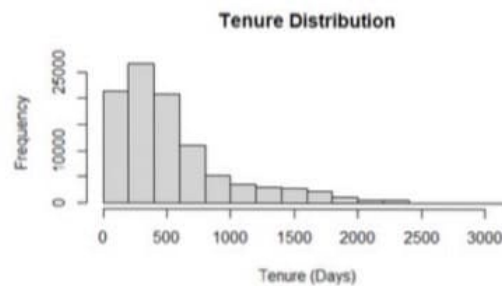
#Age Distribution



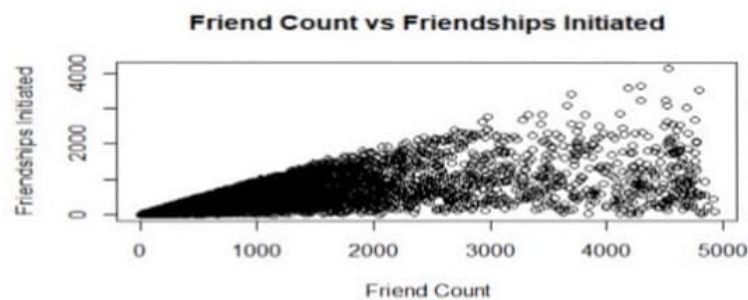
#Gender Distribution



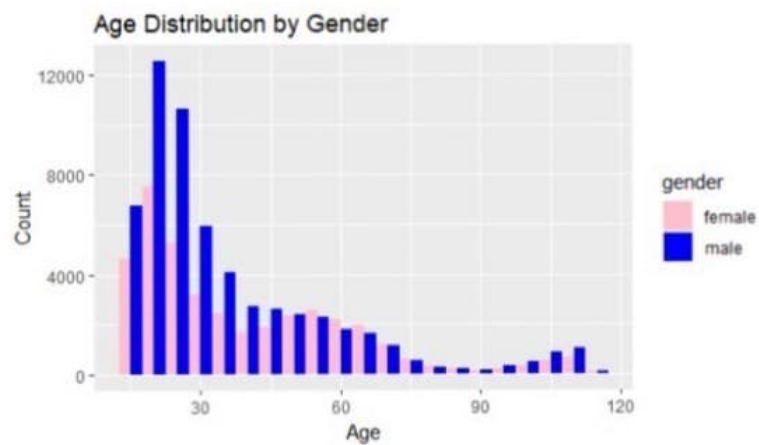
#Tenure Distribution:



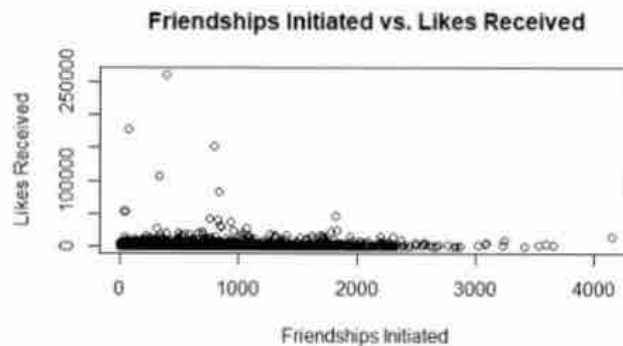
Scatter plot of friend count vs friendships initiated



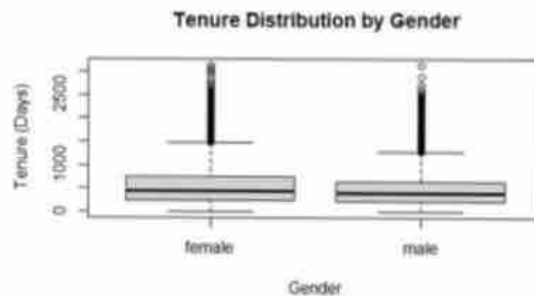
#Age distribution by gender



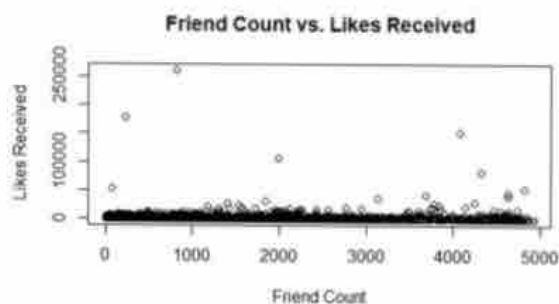
Scatter plot of friendships initiated vs. likes received



Boxplot of tenure by gender



Scatter plot of friend count vs. likes received



```
> t.test(likes_received ~ gender, data = facebook_data)
```

Welch Two Sample t-test

data: likes_received by gender

t = 17.5, df = 45288, p-value < 2.2e-16

alternative hypothesis: true difference in means between group female and group male is not equal to 0

95 percent confidence interval:

162.9783 204.0905

sample estimates:

| | |
|----------------------|--------------------|
| mean in group female | mean in group male |
| 251.44597 | 67.91155 |