facebook-metrics

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```
summary(df)
```

```
##  Page.total.likes     Type              Category      Post.Month
##  Min.   : 81370   Length:500         Min.   :1.00   Min.   : 1.000
##  1st Qu.:112676   Class :character   1st Qu.:1.00   1st Qu.: 4.000
##  Median :129600   Mode  :character   Median :2.00   Median : 7.000
##  Mean   :123194                      Mean   :1.88   Mean   : 7.038
##  3rd Qu.:136393                      3rd Qu.:3.00   3rd Qu.:10.000
##  Max.   :139441                      Max.   :3.00   Max.   :12.000
##
##   Post.Weekday    Post.Hour          Paid        Lifetime.Post.Total.Reach
##  Min.   :1.00   Min.   : 1.00   Min.   :0.0000   Min.   :   238
##  1st Qu.:2.00   1st Qu.: 3.00   1st Qu.:0.0000   1st Qu.:  3315
##  Median :4.00   Median : 9.00   Median :0.0000   Median :  5281
##  Mean   :4.15   Mean   : 7.84   Mean   :0.2786   Mean   : 13903
##  3rd Qu.:6.00   3rd Qu.:11.00   3rd Qu.:1.0000   3rd Qu.: 13168
##  Max.   :7.00   Max.   :23.00   Max.   :1.0000   Max.   :180480
##                                 NA's   :1
##  Lifetime.Post.Total.Impressions Lifetime.Engaged.Users Lifetime.Post.Consumers
##  Min.   :    570                 Min.   :    9.0        Min.   :    9.0
##  1st Qu.:   5695                 1st Qu.:  393.8        1st Qu.:  332.5
##  Median :   9051                 Median :  625.5        Median :  551.5
##  Mean   :  29586                 Mean   :  920.3        Mean   :  798.8
##  3rd Qu.:  22086                 3rd Qu.: 1062.0        3rd Qu.:  955.5
##  Max.   :1110282                 Max.   :11452.0        Max.   :11328.0
##
##  Lifetime.Post.Consumptions
##  Min.   :    9.0
##  1st Qu.:  509.2
##  Median :  851.0
##  Mean   : 1415.1
##  3rd Qu.: 1463.0
##  Max.   :19779.0
##
##  Lifetime.Post.Impressions.by.people.who.have.liked.your.Page
##  Min.   :    567
##  1st Qu.:   3970
##  Median :   6256
##  Mean   :  16766
##  3rd Qu.:  14860
##  Max.   :1107833
##
```

```
##  Lifetime.Post.reach.by.people.who.like.your.Page
##  Min.   :  236
##  1st Qu.: 2182
##  Median : 3417
##  Mean   : 6585
##  3rd Qu.: 7989
##  Max.   :51456
##
##  Lifetime.People.who.have.liked.your.Page.and.engaged.with.your.post
##  Min.   :   9.0
##  1st Qu.: 291.0
##  Median : 412.0
##  Mean   : 610.0
##  3rd Qu.: 656.2
##  Max.   :4376.0
##
##     comment             like            share        Total.Interactions
##  Min.   :  0.000   Min.   :   0.0   Min.   :  0.00   Min.   :   0.0
##  1st Qu.:  1.000   1st Qu.:  56.5   1st Qu.: 10.00   1st Qu.:  71.0
##  Median :  3.000   Median : 101.0   Median : 19.00   Median : 123.5
##  Mean   :  7.482   Mean   : 177.9   Mean   : 27.27   Mean   : 212.1
##  3rd Qu.:  7.000   3rd Qu.: 187.5   3rd Qu.: 32.25   3rd Qu.: 228.5
##  Max.   :372.000   Max.   :5172.0   Max.   :790.00   Max.   :6334.0
##                    NA's   :1        NA's   :4
```

```
colnames(df) <- sub("Lifetime", "LT", colnames(df))
colnames(df) <- sub("Post", "P", colnames(df))
colnames(df) <- sub("post", "P", colnames(df))
colnames(df) <- sub("Total", "Tot", colnames(df))
colnames(df) <- sub("total", "tot", colnames(df))
colnames(df) <- sub("Page", "Pg", colnames(df))
colnames(df) <- sub("people", "ppl", colnames(df))
colnames(df) <- sub("People", "ppl", colnames(df))
colnames(df) <- sub("engaged", "eng", colnames(df))
colnames(df) <- sub("Consumptions", "Consump", colnames(df))
colnames(df) <- sub("have.", "", colnames(df))
colnames(df) <- sub("Impressions", "Imp", colnames(df))
colnames(df) <- sub("your.", "", colnames(df))
```

```
library(reshape2)
```

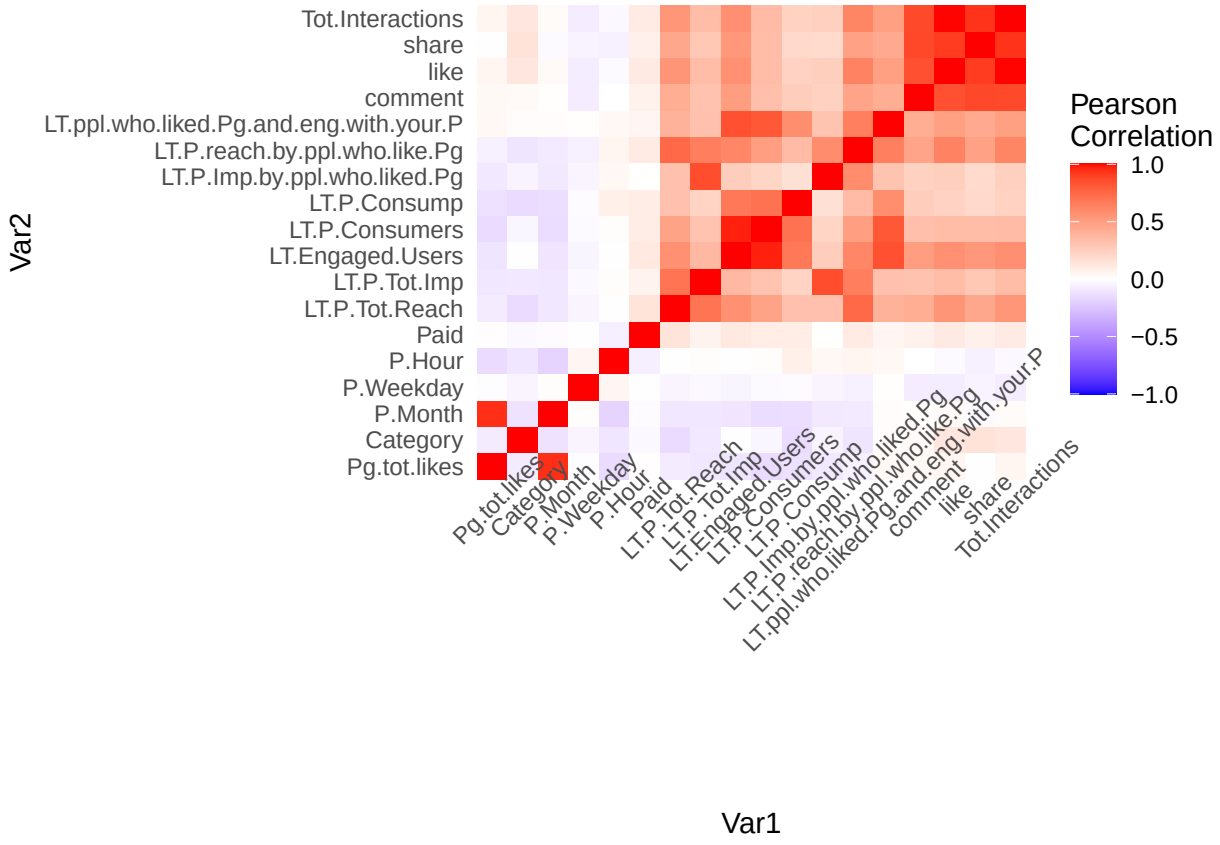
```
##
## Attaching package: 'reshape2'
```

```
## The following object is masked from 'package:tidyr':
##
##     smiths
```

```
numerical_df <- df[sapply(df, is.numeric)]
corr_mat <- cor(numerical_df, use = "complete.obs")

melted_corr <- melt(corr_mat)
ggplot(data = melted_corr, aes(x = Var1, y = Var2, fill = value)) +
  geom_tile() +
  scale_fill_gradient2(
    low = "blue",
```

```
    high = "red",
    mid = "white",
    midpoint = 0,
    limit = c(-1, 1),
    space = "Lab",
    name = "Pearson\nCorrelation"
  ) +
  scale_x_discrete(expand = c(0, 0)) +
  scale_y_discrete(expand = c(0, 0)) +
  theme_minimal() +
  theme(axis.text.x = element_text(angle = 45))
```




```
# ggsave(file="cor.png", width=20, height=25, dpi=300)
```

```
# LM <- lm(df$Lifetime.Engaged.Users ~ df$Lifetime.Post.Consumptions)
# df %>%
#   ggplot(aes(x = Lifetime.Post.Consumptions, y = Lifetime.Engaged.Users)) +
#   geom_point() +
#   xlab("Lifetime Post Consumptions") +
#   ylab("Lifetime Engaged Users") +
#   ggtitle("Lifetime Engaged Users vs Lifetime Post Consumptions") +
#   geom_smooth(method='lm', formula= y~x)
```