Project 1

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1/9/2022

```
financials <- read_csv("credit.CSV")
```

```
## Rows: 143 Columns: 7
```

```
## -- Column specification --------------------------------------------------------
## Delimiter: ","
## chr (5): Transaction Date, Post Date, Description, Category, Type
## dbl (1): Amount
## lgl (1): Memo
```

```
##
## i Use `spec()` to retrieve the full column specification for this data.
## i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

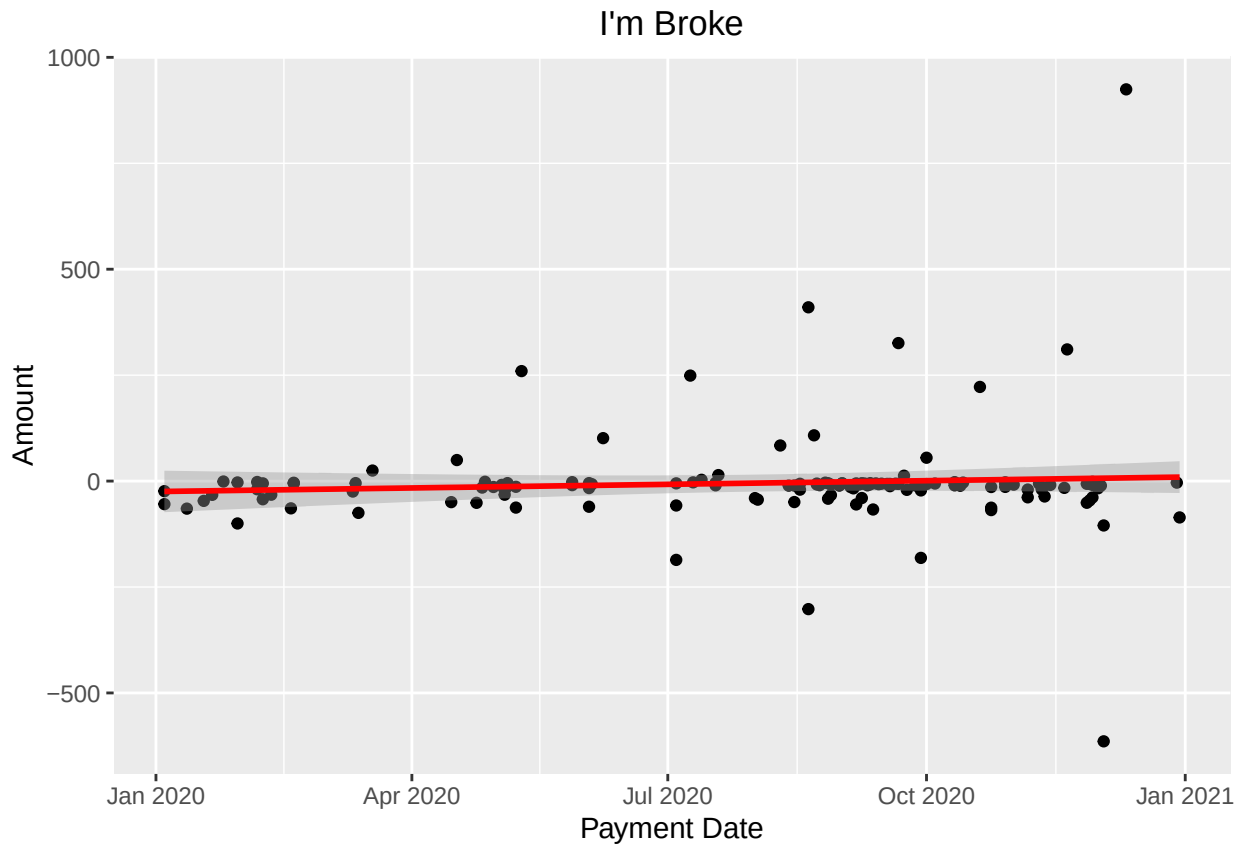
```
model <- lm(Amount ~ `Transaction Date`, data = financials)
summary(model)
```

```
financials %>%
  filter(Type == "Payment")
```

```
## # A tibble: 15 x 7
##    `Transaction Date` `Post Date` Description        Category Type  Amount Memo
##    <chr>              <chr>       <chr>              <chr>    <chr>  <dbl> <lgl>
##  1 12/11/2021         12/12/2021  Payment Thank You~ <NA>     Paym~  924.  NA
##  2 11/20/2021         11/21/2021  Payment Thank You~ <NA>     Paym~  311.  NA
##  3 10/20/2021         10/20/2021  Payment Thank You~ <NA>     Paym~  222.  NA
##  4 09/23/2021         09/23/2021  Payment Thank You~ <NA>     Paym~   12.7 NA
##  5 09/21/2021         09/21/2021  Payment Thank You~ <NA>     Paym~  326.  NA
##  6 08/22/2021         08/22/2021  Payment Thank You~ <NA>     Paym~  108.  NA
##  7 08/20/2021         08/22/2021  Payment Thank You~ <NA>     Paym~  410.  NA
##  8 08/10/2021         08/10/2021  Payment Thank You~ <NA>     Paym~   84.0 NA
##  9 07/19/2021         07/19/2021  Payment Thank You~ <NA>     Paym~   14.2 NA
## 10 07/13/2021         07/14/2021  Payment Thank You~ <NA>     Paym~    3   NA
## 11 07/09/2021         07/09/2021  Payment Thank You~ <NA>     Paym~  249.  NA
## 12 06/08/2021         06/08/2021  Payment Thank You~ <NA>     Paym~  101.  NA
## 13 05/10/2021         05/10/2021  Payment Thank You~ <NA>     Paym~  260.  NA
## 14 04/17/2021         04/18/2021  Payment Thank You~ <NA>     Paym~   49.6 NA
## 15 03/18/2021         03/18/2021  Payment Thank You~ <NA>     Paym~   24.8 NA
```

```
ggplot(financials, aes(x = as.Date(`Transaction Date`, "%m/%d/%y"), y = Amount))+
  geom_point()+
  geom_smooth(method = "lm", color = "red")+
  labs(
    title = "I'm Broke",
    x = "Payment Date",
    y = "Amount"
  )+
  theme(plot.title = element_text(hjust = 0.5))
```

```
## `geom_smooth()` using formula 'y ~ x'
```




```
model2 <- glm(Amount ~ Type, data = financials)
summary(model2)
```

```
##
## Call:
## glm(formula = Amount ~ Type, data = financials)
##
## Deviance Residuals:
##     Min       1Q   Median       3Q      Max
## -584.04    -9.94    19.43    24.59   717.83
##
## Coefficients:
```

```
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)   206.61      25.17   8.207 1.33e-13 ***
## TypeReturn   -151.48     100.70  -1.504    0.135
## TypeSale     -236.73      26.62  -8.893 2.69e-15 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for gaussian family taken to be 9506.572)
##
##     Null deviance: 2086373  on 142  degrees of freedom
## Residual deviance: 1330920  on 140  degrees of freedom
## AIC: 1720.6
##
## Number of Fisher Scoring iterations: 2
```

```
ggplot(financials, aes(x = Amount, y = Type))+
  geom_point()+
  geom_smooth(method = "lm", color = "red")
```

```
## `geom_smooth()` using formula 'y ~ x'
```