

# quick analysis

09/03/2021

```
library("readxl")
data=read_excel("GPAdata.xlsx")
data
```

```
## # A tibble: 624 x 13
##       ID  CGPA Credit  Year Gender Status Major CommuteTime LiveFamily Interest
##   <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>
## 1     1  2.3    11     3     2     1     2     1     1     4
## 2     2   3     9.5    3     1     1     2     3     1     4
## 3     3  2.75   16.5    4     2     1     2     1     1     3
## 4     4  3.78    10     3     1     1     1     2     1     5
## 5     5  3.76    15     4     1     1     2     1     1     4
## 6     6  3.33    21     4     2     1     2     2     0     4
## 7     7   3     18     4     2     1     2     1     0     5
## 8     8  3.64    10     3     1     1     2     2     1     3
## 9     9  3.64   17.5    4     2     0     1     2     0     4
## 10    10  3.3    11.5    3     1     1     1     3     0     4
## # ... with 614 more rows, and 3 more variables: SocialAct <dbl>,
## #   FamilyExp <dbl>, WeekWork <dbl>
```

```
summary(lm(CGPA ~ Credit + Year + Gender + Status + Major + CommuteTime + LiveFamily + Interest + SocialAct + FamilyExp + WeekWork, data = data))
```

```
##
## Call:
## lm(formula = CGPA ~ Credit + Year + Gender + Status + Major +
##   CommuteTime + LiveFamily + Interest + SocialAct + FamilyExp +
##   WeekWork, data = data)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.6396 -0.3377  0.0473  0.3815  1.3359
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)  2.822529   0.193192  14.610 < 2e-16 ***
## Credit       0.014318   0.007153   2.002  0.04578 *
## Year        -0.028672   0.051418  -0.558  0.57730
## Gender       -0.027912   0.041665  -0.670  0.50318
## Status       0.161110   0.056984   2.827  0.00485 **
## Major        -0.194495   0.030615  -6.353 4.13e-10 ***
## CommuteTime -0.069383   0.023597  -2.940  0.00340 **
## LiveFamily   -0.040483   0.054790  -0.739  0.46026
## Interest     0.130846   0.023358   5.602 3.21e-08 ***
```

```
## SocialAct    0.037763    0.019226    1.964    0.04997 *
## FamilyExp    0.005284    0.017795    0.297    0.76660
## WeekWork     -0.008500    0.009081   -0.936    0.34964
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5376 on 611 degrees of freedom
## (1 observation deleted due to missingness)
## Multiple R-squared:  0.1631, Adjusted R-squared:  0.148
## F-statistic: 10.82 on 11 and 611 DF,  p-value: < 2.2e-16
```

```
pairs(CGPA ~ Credit + Year + Gender + Status + Major + CommuteTime + LiveFamily + Interest + SocialAct + FamilyExp + WeekWork)
```

