Salary Analysis

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1/14/2022

```
library(tidyverse)
```

```
## -- Attaching packages --------------------------------------- tidyverse
1.3.1 --
```

```
## v ggplot2 3.3.5     v purrr   0.3.4
## v tibble  3.1.6     v dplyr   1.0.7
## v tidyr   1.1.4     v stringr 1.4.0
## v readr   2.1.0     v forcats 0.5.1
```

```
## -- Conflicts ------------------------------------------
tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

1. **Read the dataset with correct variable types**

```
Salary <- read.csv("salary.csv")
View(Salary)
```

2. **Find the total number of observations in the dataset**.

```
toalNum <- Salary %>% summarise(count=n())
toalNum
```

```
##   count
## 1  3000
```

3. **Obtain a summary of the dataset**.

```
summary(Salary)
```

```
##       age           maritl              race            education
##  Min.   :18.00   Length:3000        Length:3000        Length:3000
##  1st Qu.:33.75   Class :character   Class :character   Class :character
##  Median :42.00   Mode  :character   Mode  :character   Mode  :character
##  Mean   :42.41
##  3rd Qu.:51.00
```

```
##  Max.   :80.00
##    jobclass            health           health_ins            salary
##  Length:3000        Length:3000        Length:3000        Min.   : 20.09
##  Class :character   Class :character   Class :character   1st Qu.: 85.38
##  Mode  :character   Mode  :character   Mode  :character   Median :104.92
##                                                           Mean   :111.70
##                                                           3rd Qu.:128.68
##                                                           Max.   :318.34
```

4. **Compute the average salary of a worker**

```
avg_1 <- Salary %>% summarise(avg_salary=mean(salary))
avg_1
```

```
##   avg_salary
## 1   111.7036
```

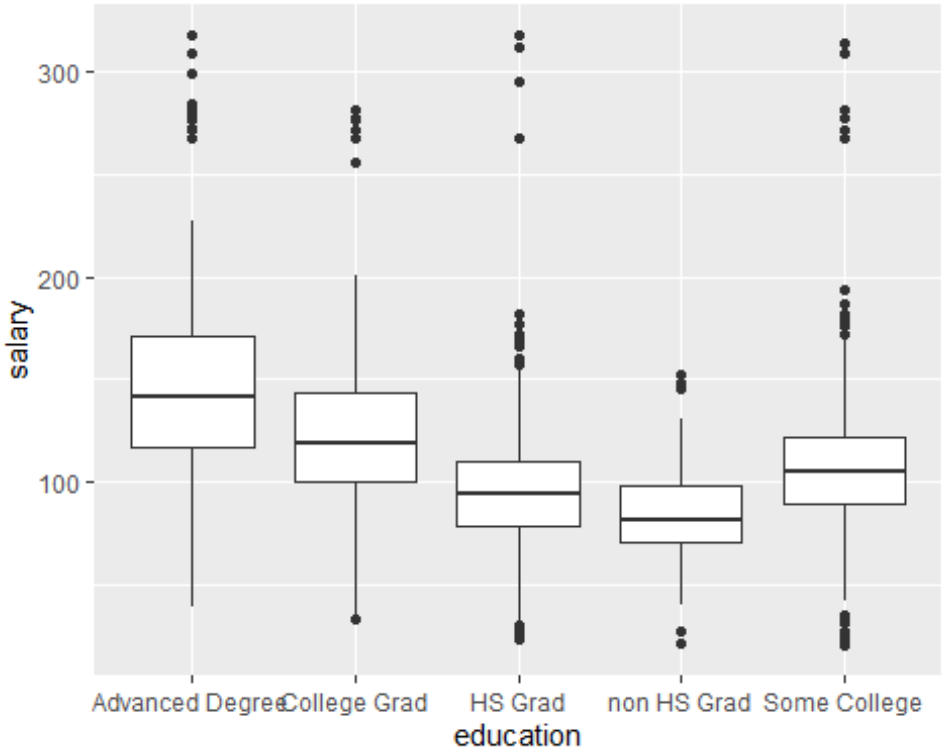
5. **Compute the average salary of a worker based on education qualification.**

```
avg_2 <- Salary %>% group_by(education) %>%
summarise(avg_salary=mean(salary))
avg_2
```

```
## # A tibble: 5 x 2
##   education       avg_salary
##   <chr>                <dbl>
## 1 Advanced Degree      151.
## 2 College Grad         124.
## 3 HS Grad               95.8
## 4 non HS Grad           84.1
## 5 Some College         108.
```

6. **Using a side-by-side box plot or a suitable plot, compare the salary of workers base on their education qualifications.**

```
box_plot <- ggplot(Salary, aes(x = education, y = salary))
box_plot + geom_boxplot()
```



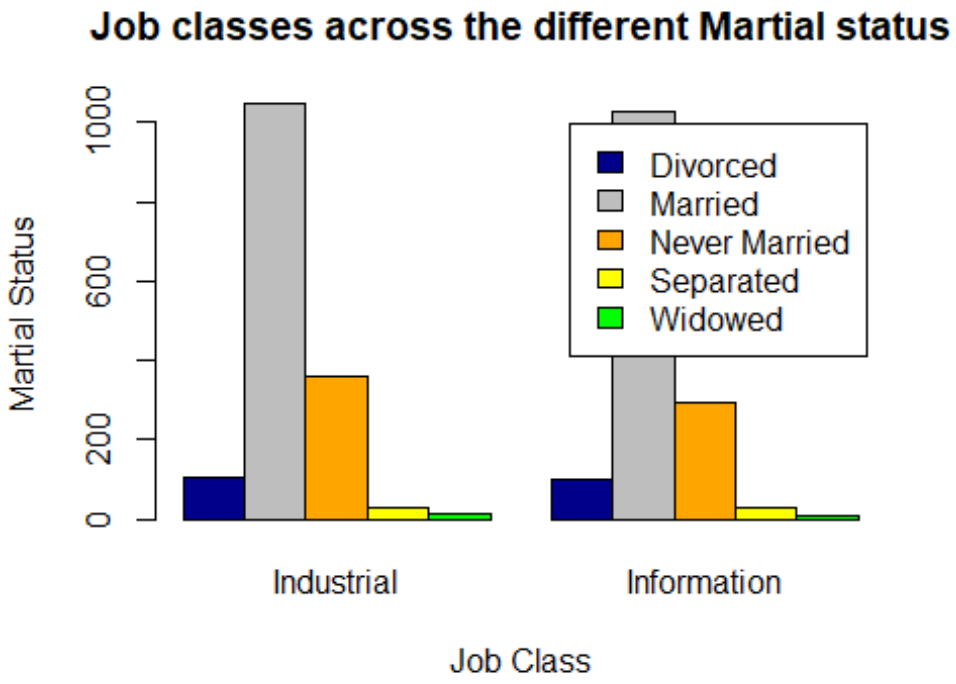
7. **Determine the percentage of Industrial workers in 'Good' health condition among the workers who are having health insurance**

```
pers <- Salary %>% select(health,health_ins) %>% filter(health == "Good" &
health_ins == "Yes") %>% summarise(percentage = 100*n()/nrow(Salary))
pers
```

```
##   percentage
## 1   51.16667
```

8. **Using a suitable plot, visualize the distribution of workers in job classes across the different marital status.**

```
counts <- table(Salary$maritl, Salary$jobclass)
barplot(counts, main="Job classes across the different Martial status",
        xlab="Job Class",ylab="Martial Status",
col=c("darkblue","Gray","Orange","Yellow","Green"),
        legend = rownames(counts), beside=TRUE)
```


Job classes across the different Martial status
Martial Status
0
200
600
1000
Divorced
Married
Never Married
Separated
Widowed
Industrial
Information
Job Class