13/04/2019 wk_4_hw

wk 4 hw

Mrinal Vashisth

```
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 #########################
 # Data Preprocessing #
 #########################
 # Let's make a dataframe
 Country <- c('France','Spain','Germany','Spain','France','Spain','France','Germany','France')</pre>
 Age <- c('44','27','30','38','40','35','','48','50','37')
 Salary <- c('72000','48000','54000','61000','','58000','52000','79000','83000','67000')
 dataset <- data.frame(Country, Age, Salary)</pre>
 dataset
 ##
       Country Age Salary
 ## 1
       France 44 72000
 ## 2
         Spain 27 48000
 ## 3 Germany 30 54000
 ## 4
         Spain 38 61000
 ## 5 Germany 40
       France 35 58000
 ## 6
 ## 7
                    52000
        Spain
 ## 8
      France 48 79000
 ## 9 Germany 50 83000
 ## 10 France 37 67000
```

"We can see that dataset is with missing values."

```
## [1] "We can see that dataset is with missing values."
```

```
# Taking care of missing data
# Although there are many options to take care of missing values, we are going to use 'replace by Mean approch'
dataset$Age = ifelse(is.na(dataset$Age),
                     ave(dataset$Age, FUN = function(x) mean(x, na.rm = TRUE)),
                     dataset$Age)
dataset$Salary = ifelse(is.na(dataset$Salary),
                        ave(datasetSalary, FUN = function(x) mean(x, na.rm = TRUE)),
                        dataset$Salary)
dataset
```

```
##
     Country Age Salary
## 1
     France 8
                     8
## 2
       Spain
              2
                     2
     Germany
## 3
              3
                     4
## 4
       Spain
              6
                     6
## 5 Germany
              7
                     1
## 6
     France
                     5
                     3
## 7
       Spain
              1
## 8
     France
             9
                     9
                    10
## 9 Germany 10
## 10 France
                     7
```

```
"Here dataset ain't got no missing values."
```

```
## [1] "Here dataset ain't got no missing values."
```