

## DS\_Mod1\_Flow\_control

We'll start off by reading our customer\_churn dataset.
customer\_churn<-read.csv("C:/Users/INTELLIPAAT/Desktop/customer\_churn.csv")</pre>

```
head(customer_churn)
     customerID gender SeniorCitizen Partner Dependents tenure PhoneService
## 1 7590-VHVEG Female
                                     0
                                           Yes
                                                        No
                                                                 1
## 2 5575-GNVDE
                   Male
                                     0
                                            No
                                                        No
                                                                34
                                                                            Yes
                                                                2
## 3 3668-QPYBK
                   Male
                                     0
                                            No
                                                        No
                                                                            Yes
                                     0
                                            No
                                                        No
                                                                45
## 4 7795-CFOCW
                   Male
                                                                             No
## 5 9237-HQITU Female
                                     0
                                            No
                                                        No
                                                                 2
                                                                            Yes
## 6 9305-CDSKC Female
                                     0
                                            No
                                                        No
                                                                 8
                                                                            Yes
        MultipleLines InternetService OnlineSecurity OnlineBackup
##
## 1 No phone service
                                    DSL
                                                     No
                                                                  Yes
                                    DSL
## 2
                                                    Yes
                                                                   No
## 3
                    No
                                    DSL
                                                    Yes
                                                                  Yes
## 4 No phone service
                                    DSL
                                                    Yes
                                                                   No
                           Fiber optic
## 5
                    No
                                                     No
                                                                   No
## 6
                           Fiber optic
                   Yes
                                                     No
                                                                   No
##
     DeviceProtection TechSupport StreamingTV StreamingMovies
                                                                        Contract
## 1
                    No
                                 No
                                             No
                                                               No Month-to-month
## 2
                   Yes
                                 No
                                             No
                                                              No
                                                                        One year
## 3
                    No
                                 No
                                             No
                                                              No Month-to-month
## 4
                               Yes
                   Yes
                                             No
                                                                        One vear
## 5
                                 No
                                             No
                                                              No Month-to-month
                    No
## 6
                   Yes
                                            Yes
                                                             Yes Month-to-month
                                 No
     PaperlessBilling
                                    PaymentMethod MonthlyCharges TotalCharges
##
                                 Electronic check
## 1
                   Yes
                                                            29.85
                                                                          29.85
## 2
                                     Mailed check
                                                            56.95
                    No
                                                                        1889.50
## 3
                   Yes
                                     Mailed check
                                                            53.85
                                                                         108.15
                    No Bank transfer (automatic)
## 4
                                                            42.30
                                                                        1840.75
                                 Electronic check
## 5
                   Yes
                                                            70.70
                                                                         151.65
                                 Electronic check
                                                            99.65
                                                                         820.50
## 6
                   Yes
##
     Churn
## 1
        No
## 2
        No
## 3
       Yes
## 4
        No
## 5
       Yes
## 6
       Yes
```



```
Here, we are changing the
if(customer churn$gender[1]=="Female"){
    customer churn$gender[1]<-"Male"</pre>
}
head(customer_churn)
     customerID gender SeniorCitizen Partner Dependents tenure PhoneService
## 1 7590-VHVEG
                   Male
                                            Yes
                                                                 1
                                                                              No
## 2 5575-GNVDE
                                     0
                   Male
                                             No
                                                         No
                                                                34
                                                                             Yes
## 3 3668-QPYBK
                   Male
                                     0
                                             No
                                                         No
                                                                 2
                                                                             Yes
                                     0
                                                                45
## 4 7795-CFOCW
                   Male
                                             No
                                                         No
                                                                              No
## 5 9237-HQITU Female
                                     0
                                                         No
                                                                 2
                                             No
                                                                             Yes
## 6 9305-CDSKC Female
                                     0
                                                                 8
                                                                             Yes
                                             No
                                                         No
##
        MultipleLines InternetService OnlineSecurity OnlineBackup
## 1 No phone service
                                    DSL
                                                     No
## 2
                                    DSL
                                                    Yes
                                                                    No
## 3
                                    DSL
                                                    Yes
                                                                  Yes
## 4 No phone service
                                    DSL
                                                    Yes
                                                                    No
## 5
                    No
                            Fiber optic
                                                     No
                                                                    No
                            Fiber optic
                                                     No
## 6
                   Yes
                                                                    No
##
     DeviceProtection TechSupport StreamingTV StreamingMovies
                                                                         Contract
## 1
                    No
                                 No
                                              No
                                                               No Month-to-month
## 2
                   Yes
                                 No
                                              No
                                                               No
                                                                         One year
## 3
                                 No
                    No
                                              No
                                                               No Month-to-month
## 4
                   Yes
                                Yes
                                              No
                                                               No
                                                                         One year
## 5
                    No
                                 No
                                              No
                                                               No Month-to-month
## 6
                   Yes
                                 No
                                             Yes
                                                              Yes Month-to-month
##
     PaperlessBilling
                                    PaymentMethod MonthlyCharges TotalCharges
                                 Electronic check
## 1
                   Yes
                                                             29.85
                                                                           29.85
## 2
                    No
                                     Mailed check
                                                             56.95
                                                                         1889.50
## 3
                   Yes
                                     Mailed check
                                                             53.85
                                                                          108.15
                    No Bank transfer (automatic)
                                                             42.30
## 4
                                                                         1840.75
## 5
                   Yes
                                 Electronic check
                                                             70.70
                                                                          151.65
                                 Electronic check
## 6
                   Yes
                                                             99.65
                                                                          820.50
##
     Churn
## 1
        No
## 2
        No
## 3
       Yes
## 4
        No
## 5
       Yes
## 6
       Yes
```

```
if(customer_churn$tenure[10]>50){
    customer_churn$MonthlyCharges[0] <-customer_churn$MonthlyCharges[10]*0.9
}
head(customer_churn)</pre>
```



```
customerID gender SeniorCitizen Partner Dependents tenure PhoneService
## 1 7590-VHVEG
                   Male
                                           Yes
                                                        No
                                                                 1
                                                                              No
                                     0
## 2 5575-GNVDE
                                     0
                                                                34
                                                                             Yes
                   Male
                                             No
                                                        No
## 3 3668-QPYBK
                   Male
                                     0
                                             No
                                                        No
                                                                 2
                                                                             Yes
## 4 7795-CFOCW
                                     0
                                                                45
                   Male
                                             No
                                                        No
                                                                              No
## 5 9237-HQITU Female
                                     0
                                                                 2
                                             No
                                                        No
                                                                             Yes
## 6 9305-CDSKC Female
                                     0
                                             No
                                                        No
                                                                 8
                                                                             Yes
        MultipleLines InternetService OnlineSecurity OnlineBackup
## 1 No phone service
                                    DSL
                                                     No
## 2
                    No
                                    DSL
                                                    Yes
                                                                   No
## 3
                                    DSL
                    No
                                                    Yes
                                                                  Yes
                                    DSL
                                                    Yes
## 4 No phone service
                                                                   No
## 5
                    No
                           Fiber optic
                                                     No
                                                                   No
## 6
                   Yes
                           Fiber optic
                                                     No
                                                                   No
     DeviceProtection TechSupport StreamingTV StreamingMovies
##
                                                                        Contract
## 1
                    No
                                 No
                                              No
                                                               No Month-to-month
## 2
                   Yes
                                 No
                                              No
                                                               No
                                                                        One year
                                 No
## 3
                    No
                                              No
                                                               No Month-to-month
## 4
                   Yes
                                Yes
                                              No
                                                               No
                                                                        One year
## 5
                    No
                                 No
                                              No
                                                               No Month-to-month
## 6
                   Yes
                                 No
                                                              Yes Month-to-month
                                            Yes
     PaperlessBilling
                                    PaymentMethod MonthlyCharges TotalCharges
##
                                 Electronic check
                                                             29.85
## 1
                   Yes
                                                                           29.85
## 2
                    No
                                     Mailed check
                                                             56.95
                                                                        1889.50
                                     Mailed check
## 3
                   Yes
                                                             53.85
                                                                          108.15
                   No Bank transfer (automatic)
## 4
                                                             42.30
                                                                        1840.75
                                 Electronic check
## 5
                   Yes
                                                            70.70
                                                                          151.65
                   Yes
                                 Electronic check
                                                             99.65
                                                                          820.50
## 6
     Churn
##
## 1
        No
## 2
        No
## 3
       Yes
## 4
        No
## 5
       Yes
## 6
       Yes
```

```
if(customer_churn$Churn[1]=="Yes"){
print("Please give us a feedback on how we can improve our network")
}else{
print("Thanks for using our network")
}
## [1] "Thanks for using our network"
```

```
switch (as.character(customer_churn$InternetService[5]),
"DSL"=customer_churn$MonthlyCharges[5]*0.9,
```



```
"Fiber optic"=customer_churn$MonthlyCharges[5]*0.8) -
>customer_churn$MonthlyCharges[5]
```

```
count=0
for(i in1:nrow(customer_churn)){
   if(customer_churn$gender[i]=="Male"){
        count=count+1
    }
}
count
## [1] 3556
table(customer_churn$gender)
##
## Female Male
## 3487 3556
```

```
count=0
i=1
while(i<=nrow(customer_churn)){</pre>
if(customer_churn$PaymentMethod[i]=="Electronic check"){
        count=count+1
    }
i=i+1
}
count
## [1] 2365
table(customer_churn$PaymentMethod)
##
## Bank transfer (automatic)
                                Credit card (automatic)
##
                         1544
                                                     1522
            Electronic check
                                            Mailed check
##
##
                         2365
                                                     1612
```



```
}
count
## [1] 2365
table(customer_churn$PaymentMethod)
##
## Bank transfer (automatic)
                                Credit card (automatic)
##
                        1544
                                                    1522
##
            Electronic check
                                           Mailed check
                         2365
                                                    1612
##
```

## **Data Science Certification Course**



```
table(customer_churn$gender)
##
## Female Male
## 3487 3556
```