Assignment-!

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```
options(repos = c(CRAN = "https://cloud.r-project.org"))
install.packages("readxl")
```

```
## Installing package into 'C:/Users/gadda/AppData/Local/R/win-library/4.4'
## (as 'lib' is unspecified)

## package 'readxl' successfully unpacked and MD5 sums checked
##
## The downloaded binary packages are in
##  C:\Users\gadda\AppData\Local\Temp\RtmpM5XxsD\downloaded_packages
```

```
install.packages("ggplot2")
```

```
## Installing package into 'C:/Users/gadda/AppData/Local/R/win-library/4.4'
## (as 'lib' is unspecified)

## package 'ggplot2' successfully unpacked and MD5 sums checked
##
## The downloaded binary packages are in
##  C:\Users\gadda\AppData\Local\Temp\RtmpM5XxsD\downloaded_packages
```

```
install.packages('tinytex')
```

```
## Installing package into 'C:/Users/gadda/AppData/Local/R/win-library/4.4'
## (as 'lib' is unspecified)

## package 'tinytex' successfully unpacked and MD5 sums checked
##
## The downloaded binary packages are in
##  C:\Users\gadda\AppData\Local\Temp\RtmpM5XxsD\downloaded_packages
```

```
tinytex::install_tinytex()
```

```
## tlmgr --repository http://www.preining.info/tlgpg/ install tlgpg

## tlmgr option repository "https://mirrors.mit.edu/CTAN/systems/texlive/tlnet"

## tlmgr update --list
```

```r
library(readxl)
library(ggplot2)
employee_data <- read_excel("C:/Users/gadda/Downloads/Typical_Employee_Survey_Data.xlsx")
```

```
## New names:
## * `1` -> `1...2`
## * `2` -> `2...3`
## * `1` -> `1...6`
## * `2` -> `2...7`
## * `1` -> `1...8`
## * `2` -> `2...9`
## * `2` -> `2...11`
```

```r
colnames(employee_data) <- c(
  "Age", "Gender", "Job_Satisfaction", "Important_Job_Characteristic",
  "Years_At_Employer", "Promotion_Likelihood", "Decision_Making",
  "Budget_Participation", "Pride_In_Organization", "Turn_Down_Job_Offer",
  "Workplace_Relations"
)
summary(employee_data$Age)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   20.00   33.00   38.00   39.13   44.00   64.00
```

```r
summary(employee_data$Gender)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    1.00    1.00    1.00    1.43    2.00    2.00
```

```r
summary(employee_data$Job_Satisfaction)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   1.000   1.000   1.000   1.628   2.000   4.000
```

```r
summary(employee_data$Important_Job_Characteristic)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   1.000   2.000   5.000   3.702   5.000   5.000
```

```r
summary(employee_data$Years_At_Employer)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   0.080   2.000   5.000   8.267  11.000  52.250
```

```r
summary(employee_data$Promotion_Likelihood)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   1.000   2.000   4.000   3.306   5.000   5.000
```

```r
summary(employee_data$Decision_Making)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   1.000   2.000   2.000   2.281   3.000   4.000
```

```r
summary(employee_data$Budget_Participation)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   1.000   1.000   1.000   1.455   2.000   2.000
```

```r
summary(employee_data$Pride_In_Organization)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   1.000   1.000   2.000   1.785   2.000   4.000
```

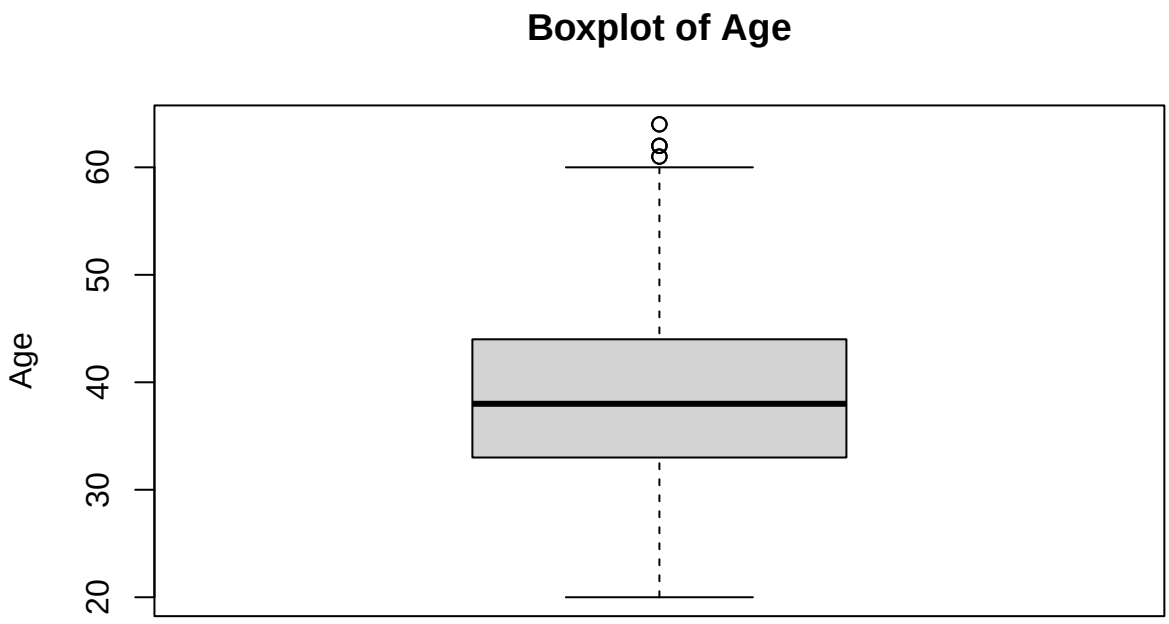
```r
summary(employee_data$Turn_Down_Job_Offer)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    1.00    2.00    4.00    3.24    4.00    5.00
```

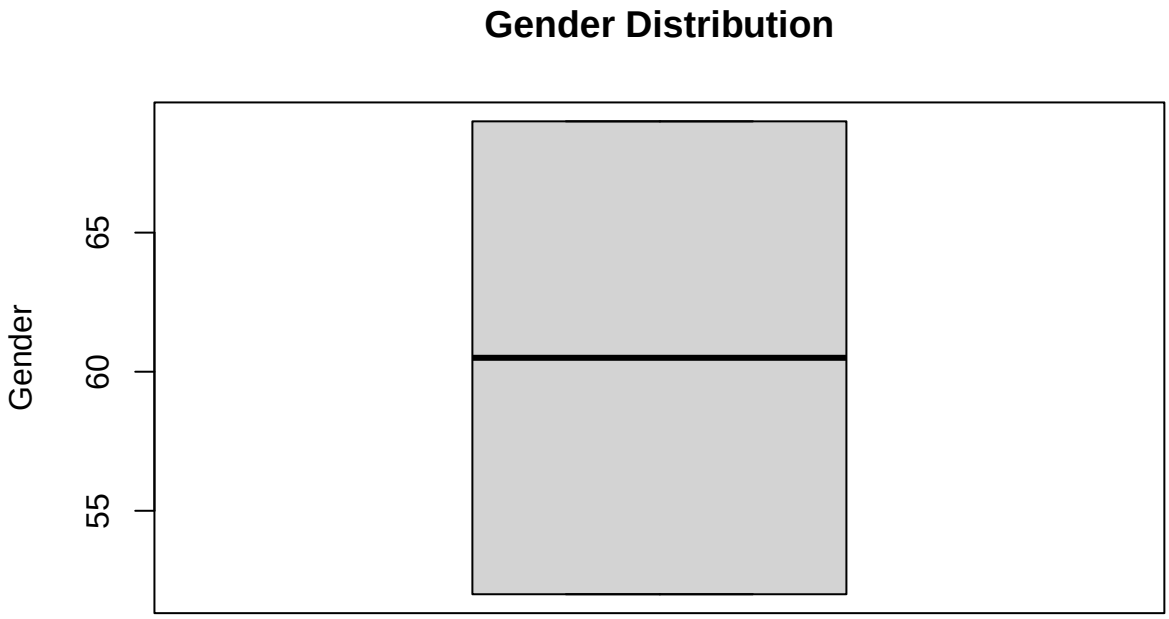
```r
summary(employee_data$Workplace_Relations)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   1.000   1.000   2.000   1.785   2.000   4.000
```

```r
boxplot(employee_data$Age, main="Boxplot of Age", ylab="Age")
```

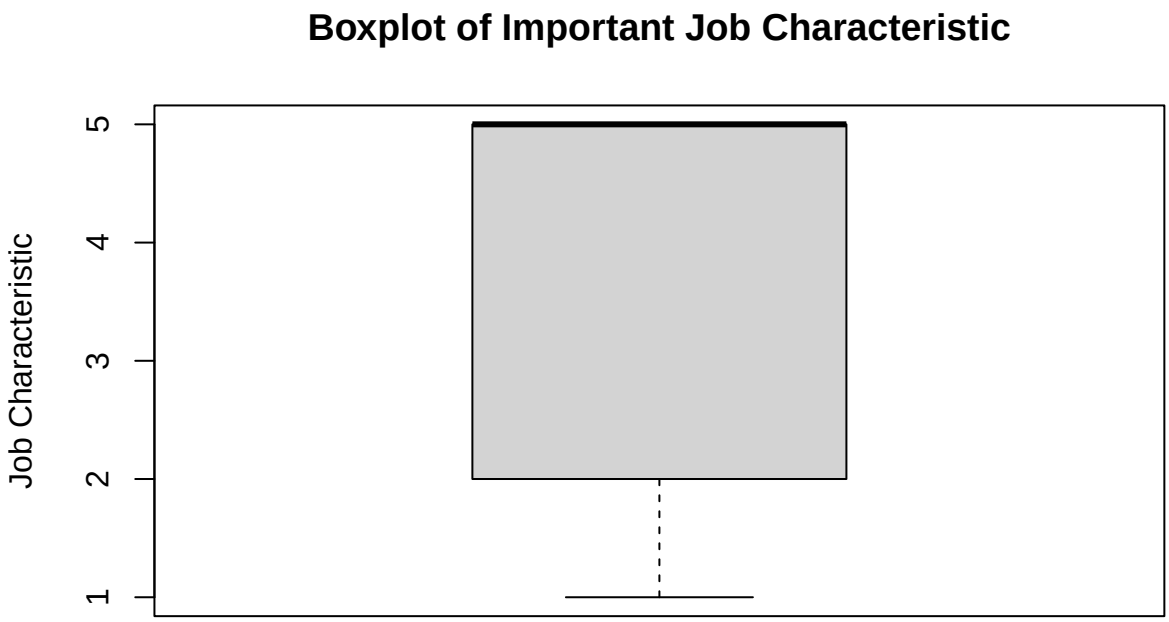



```
boxplot(table(employee_data$Gender), main="Gender Distribution", ylab="Gender")
```

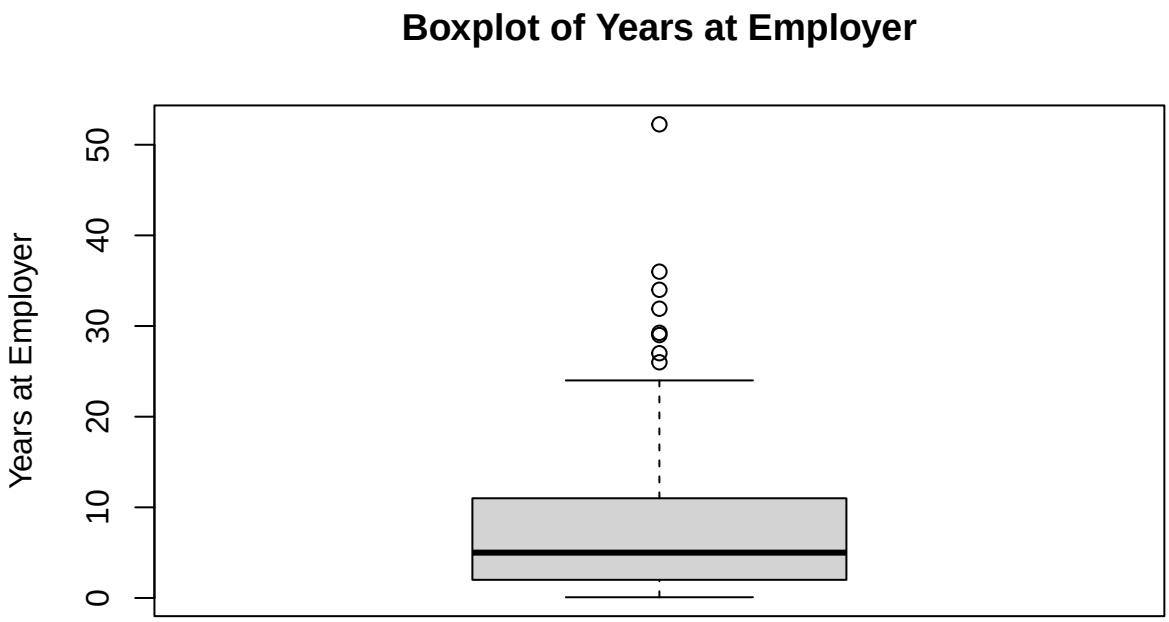



```
boxplot(employee_data$Job_Satisfaction, main="Boxplot of Job Satisfaction", ylab="Job Satisfaction")
```

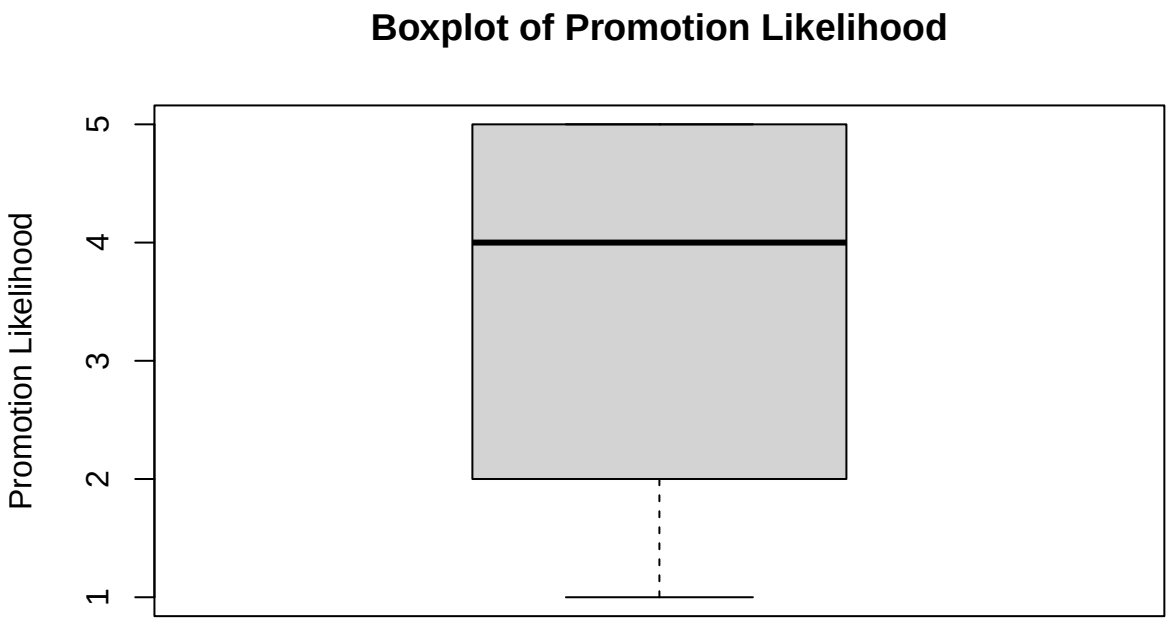

```
boxplot(employee_data$Important_Job_Characteristic, main="Boxplot of Important Job Characteristic", ylab
```



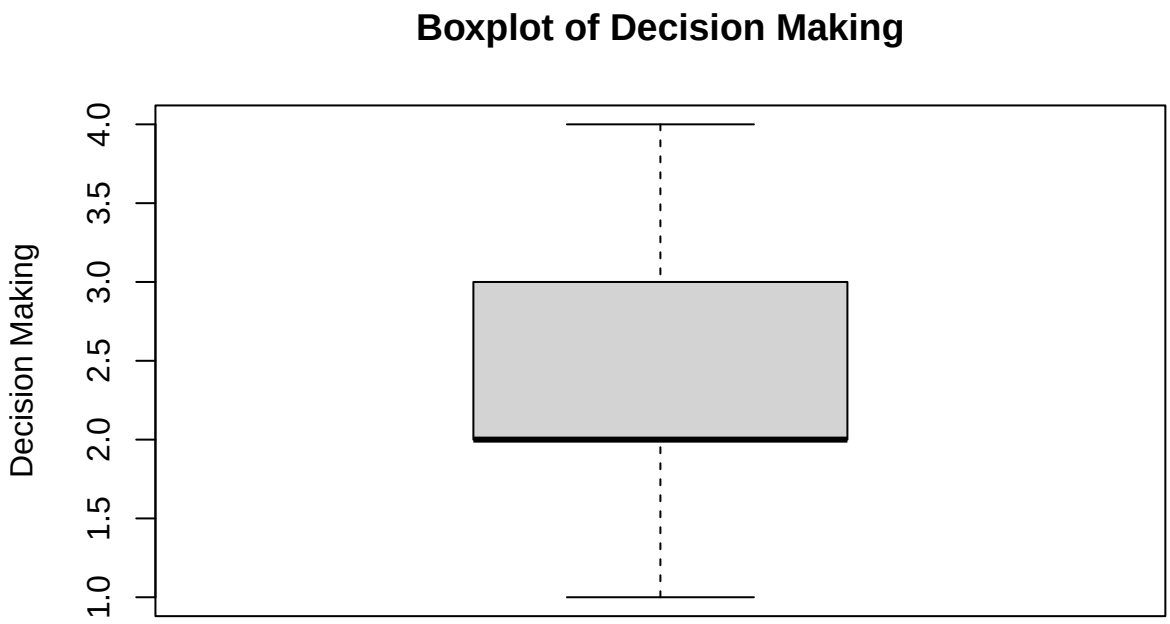

```r
boxplot(employee_data$Years_At_Employer, main="Boxplot of Years at Employer", ylab="Years at Employer")
```



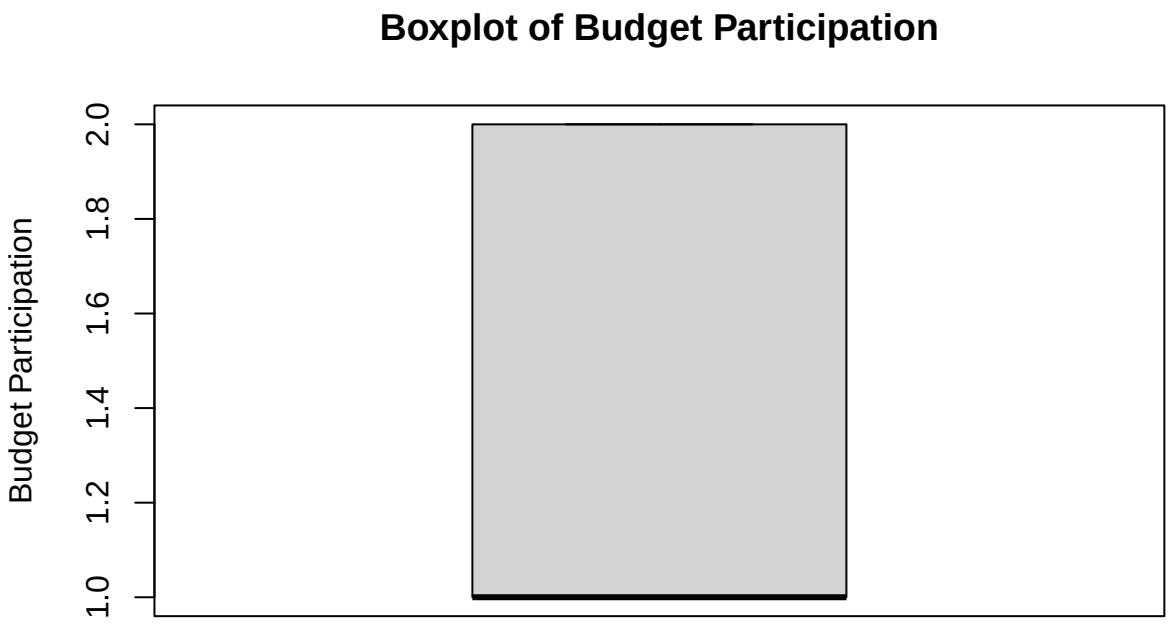

```
boxplot(employee_data$Promotion_Likelihood, main="Boxplot of Promotion Likelihood", ylab="Promotion Lik
```



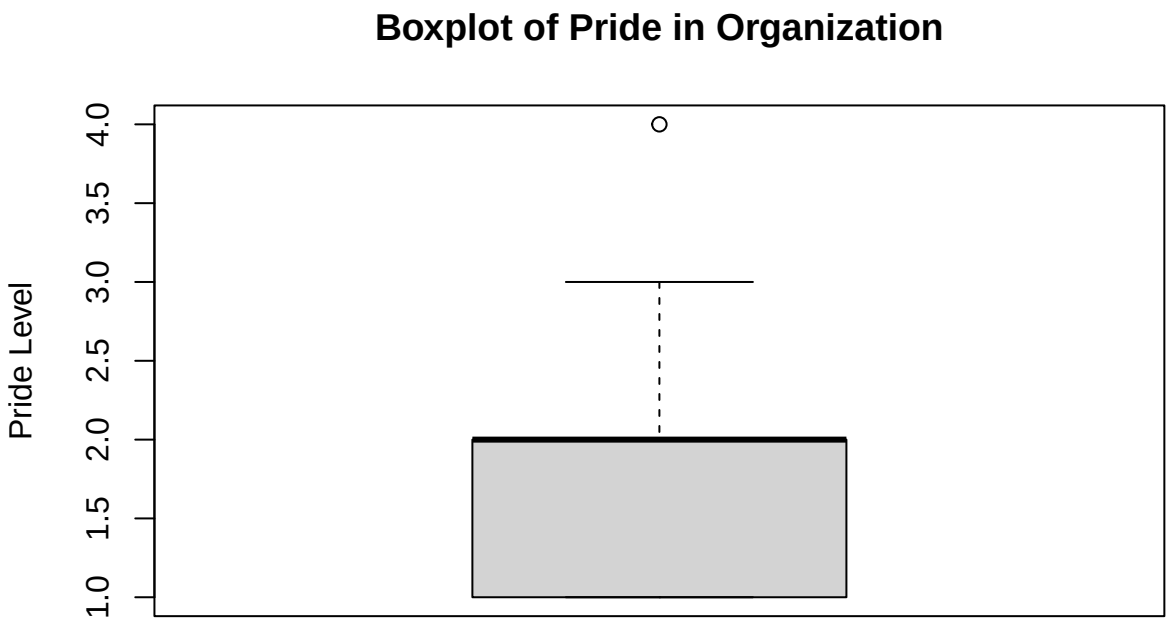

```
boxplot(employee_data$Decision_Making, main="Boxplot of Decision Making", ylab="Decision Making")
```



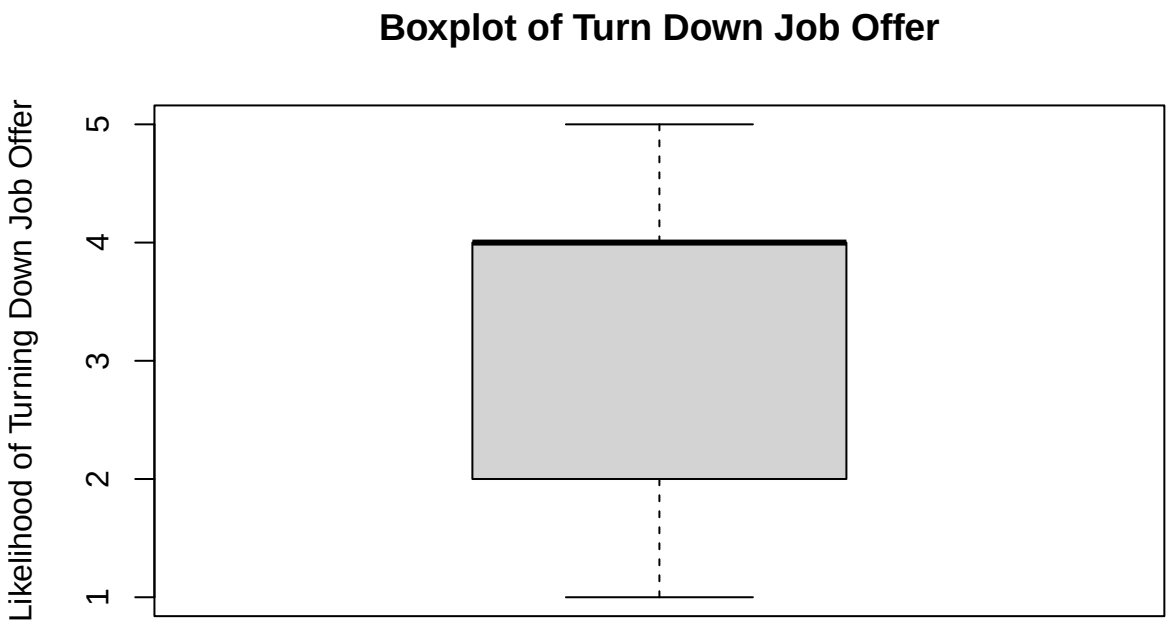

```
boxplot(employee_data$Budget_Participation, main="Boxplot of Budget Participation", ylab="Budget Partic
```



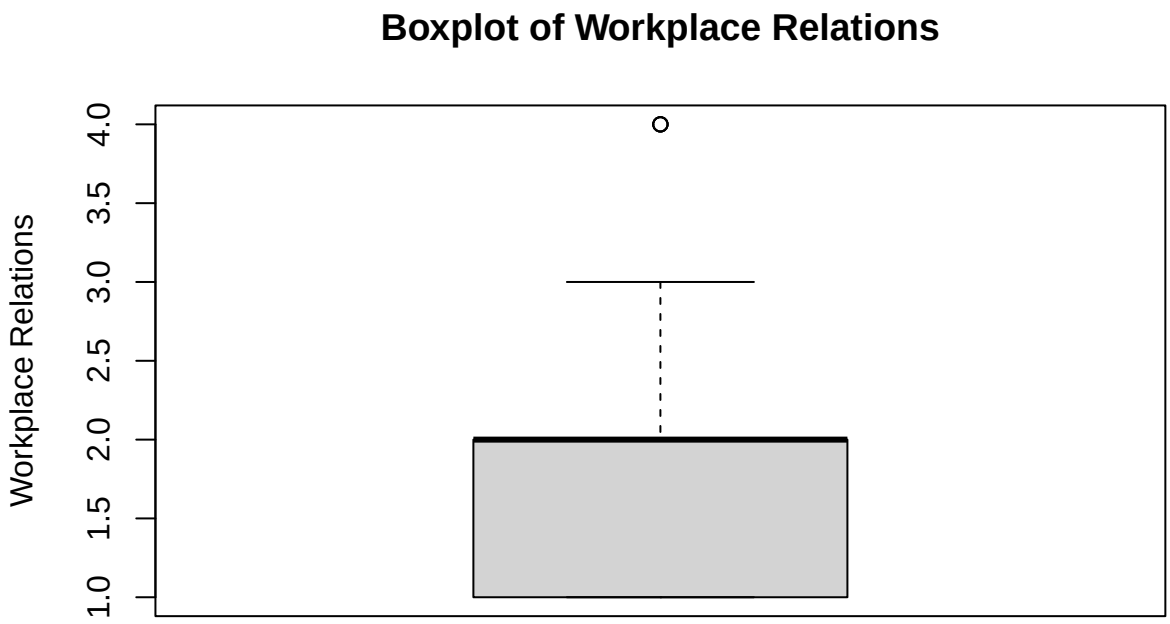

```
boxplot(employee_data$Pride_In_Organization, main="Boxplot of Pride in Organization", ylab="Pride Level
```




```
boxplot(employee_data$Turn_Down_Job_Offer, main="Boxplot of Turn Down Job Offer", ylab="Likelihood of Tu
```



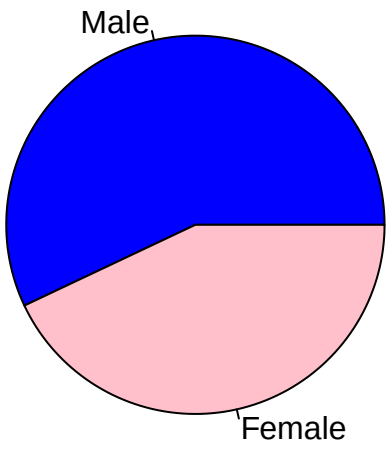

```
boxplot(employee_data$Workplace_Relations, main="Boxplot of Workplace Relations", ylab="Workplace Relati
```



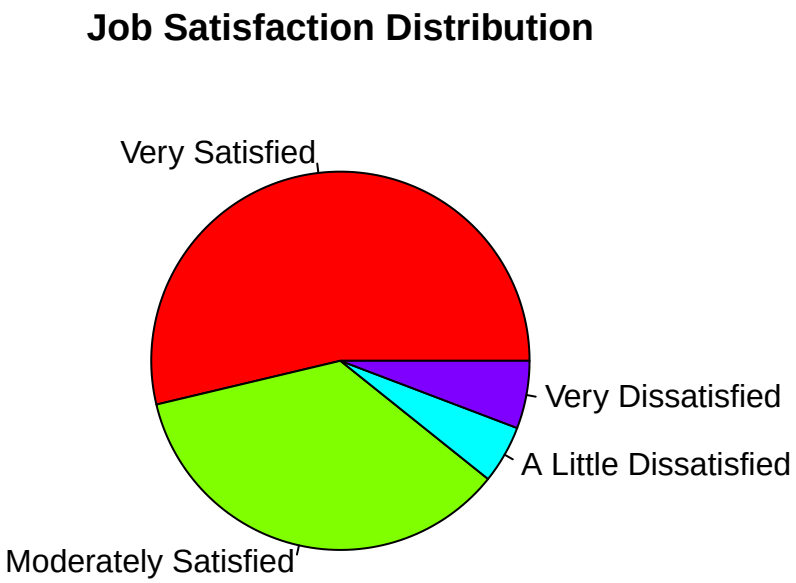

```r
employee_data$Gender <- as.factor(employee_data$Gender)
employee_data$Job_Satisfaction <- as.factor(employee_data$Job_Satisfaction)
employee_data$Important_Job_Characteristic <- as.factor(employee_data$Important_Job_Characteristic)
employee_data$Promotion_Likelihood <- as.factor(employee_data$Promotion_Likelihood)
employee_data$Decision_Making <- as.factor(employee_data$Decision_Making)
employee_data$Budget_Participation <- as.factor(employee_data$Budget_Participation)
employee_data$Pride_In_Organization <- as.factor(employee_data$Pride_In_Organization)
employee_data$Turn_Down_Job_Offer <- as.factor(employee_data$Turn_Down_Job_Offer)
employee_data$Workplace_Relations <- as.factor(employee_data$Workplace_Relations)

hist(employee_data$Age, main="Histogram of Age", xlab="Age", col="yellow")
```

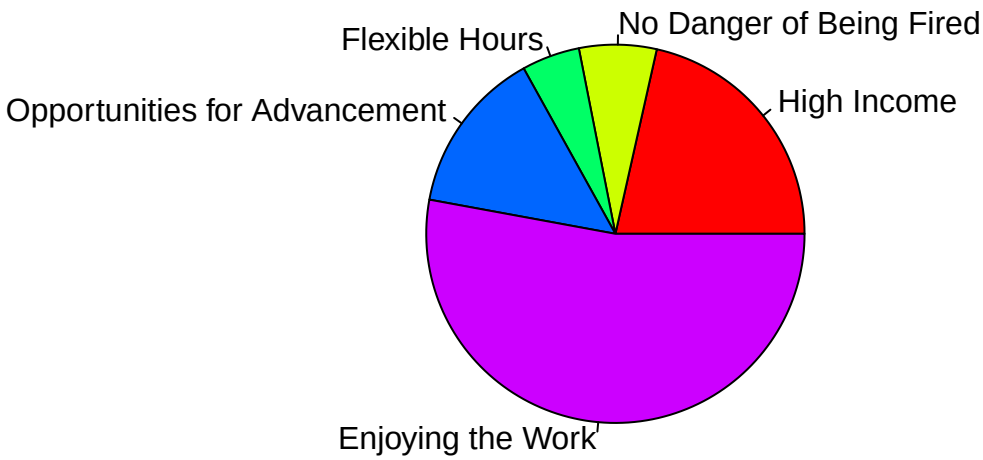

```
pie(table(employee_data$Gender), main="Gender Distribution", col=c("blue", "pink"), labels=c("Male", "Fe
```



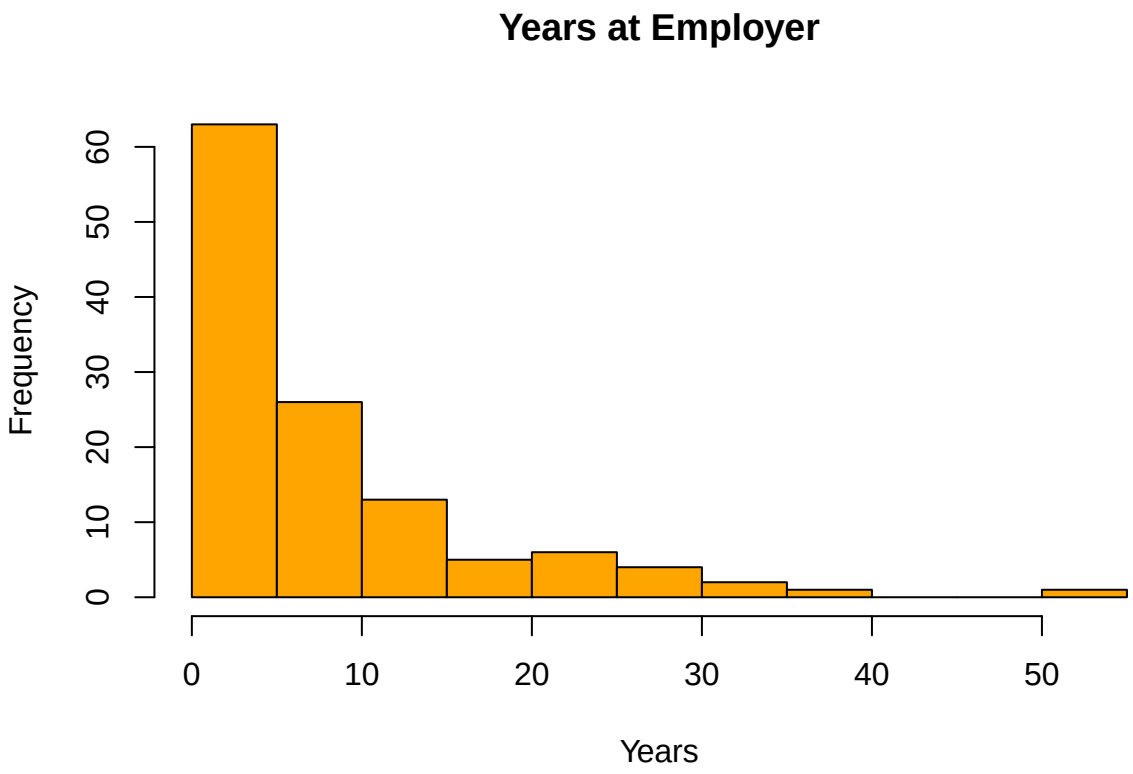

```
pie(table(employee_data$Job_Satisfaction), main="Job Satisfaction Distribution",
    col=rainbow(length(table(employee_data$Job_Satisfaction))),
    labels=c("Very Satisfied", "Moderately Satisfied", "A Little Dissatisfied", "Very Dissatisfied"))
```



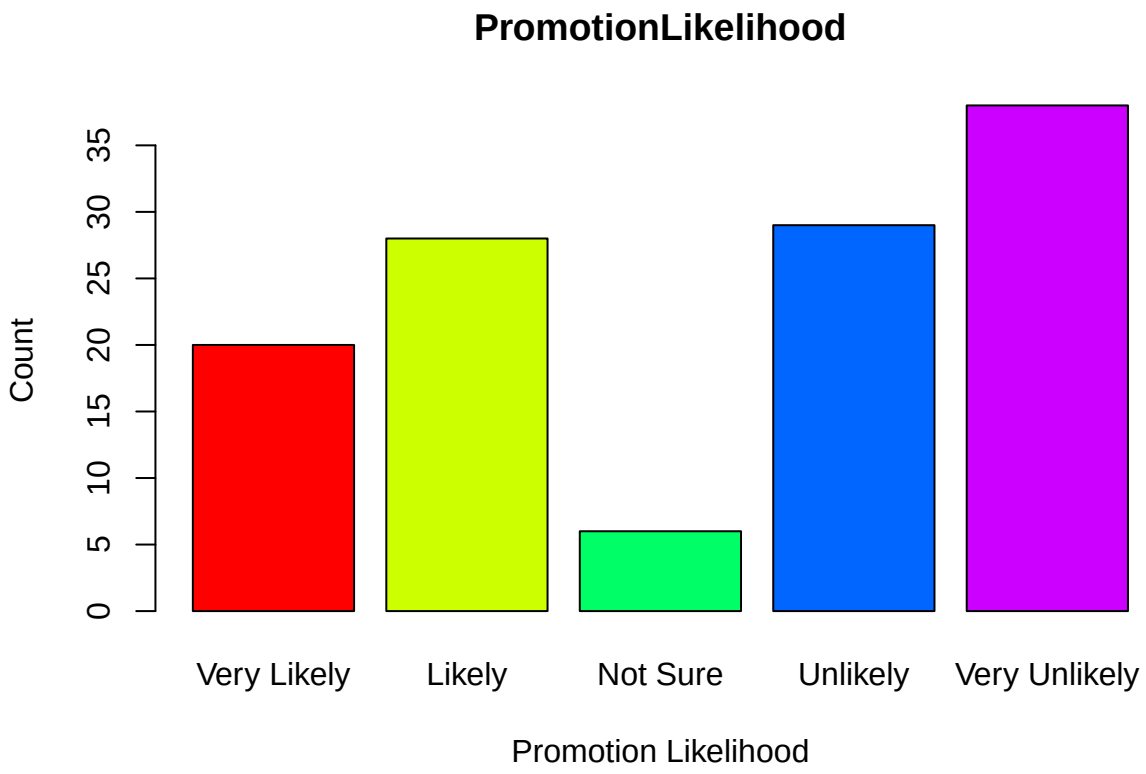

```
pie(table(employee_data$Important_Job_Characteristic), main="Important Job Characteristic",
    col=rainbow(length(table(employee_data$Important_Job_Characteristic))),
    labels=c("High Income", "No Danger of Being Fired", "Flexible Hours", "Opportunities for Advancement
```



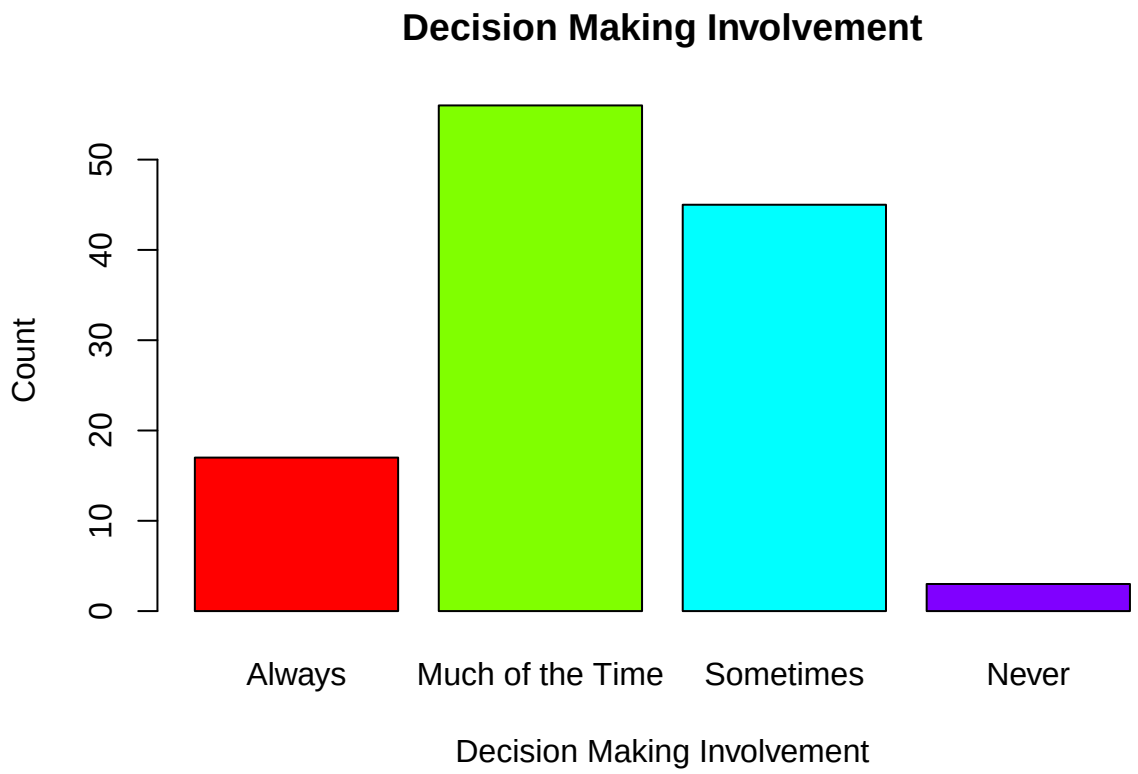

```
hist(employee_data$Years_At_Employer, main="Years at Employer", xlab="Years", col="orange")
```



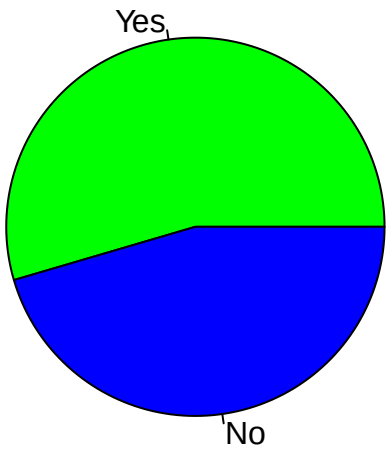

```
barplot(table(employee_data$Promotion_Likelihood),main="PromotionLikelihood",col=rainbow(length(table(e
```




```
barplot(table(employee_data$Decision_Making),main="Decision Making Involvement",col=rainbow(length(table
```

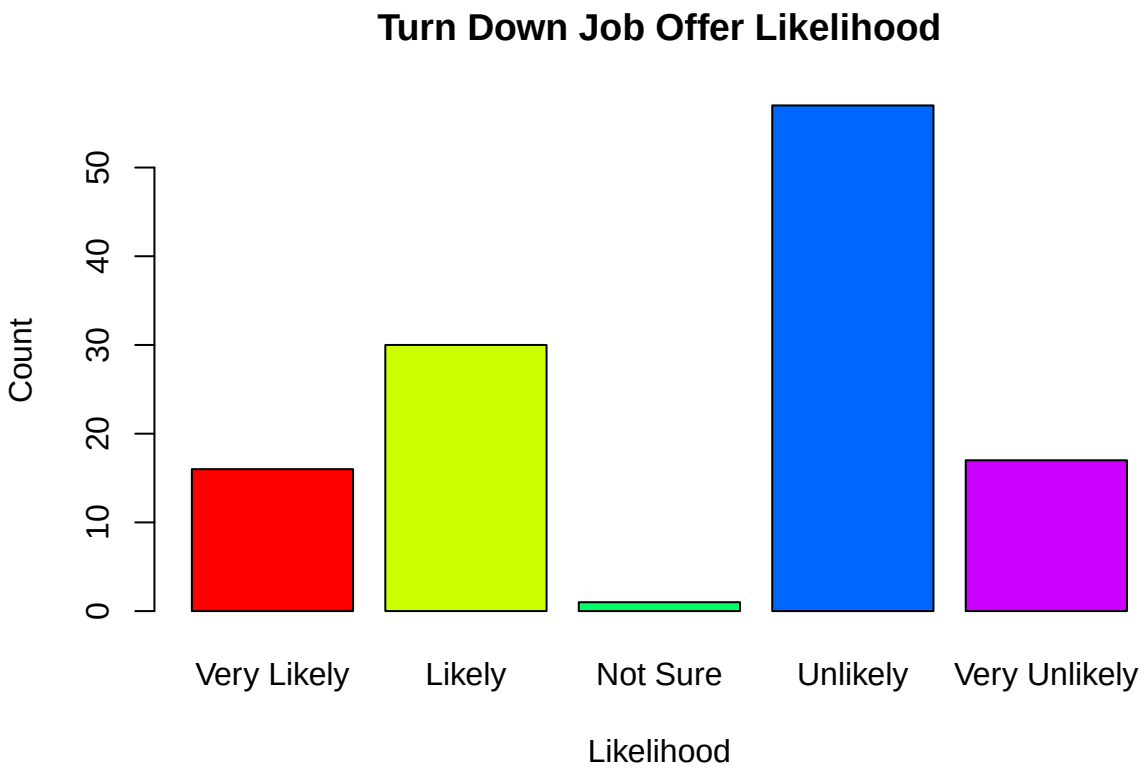



```
pie(table(employee_data$Budget_Participation), main="Budget Participation",
    col=c("green", "blue"), labels=c("Yes", "No"))
```

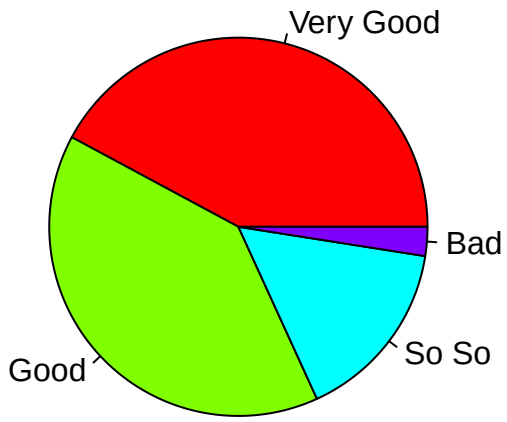



```
pie(table(employee_data$Pride_In_Organization), main="Pride in Organization",
    col=rainbow(length(table(employee_data$Pride_In_Organization))),
    labels=c("Very Proud", "Somewhat Proud", "Indifferent", "Not at All Proud"))
```

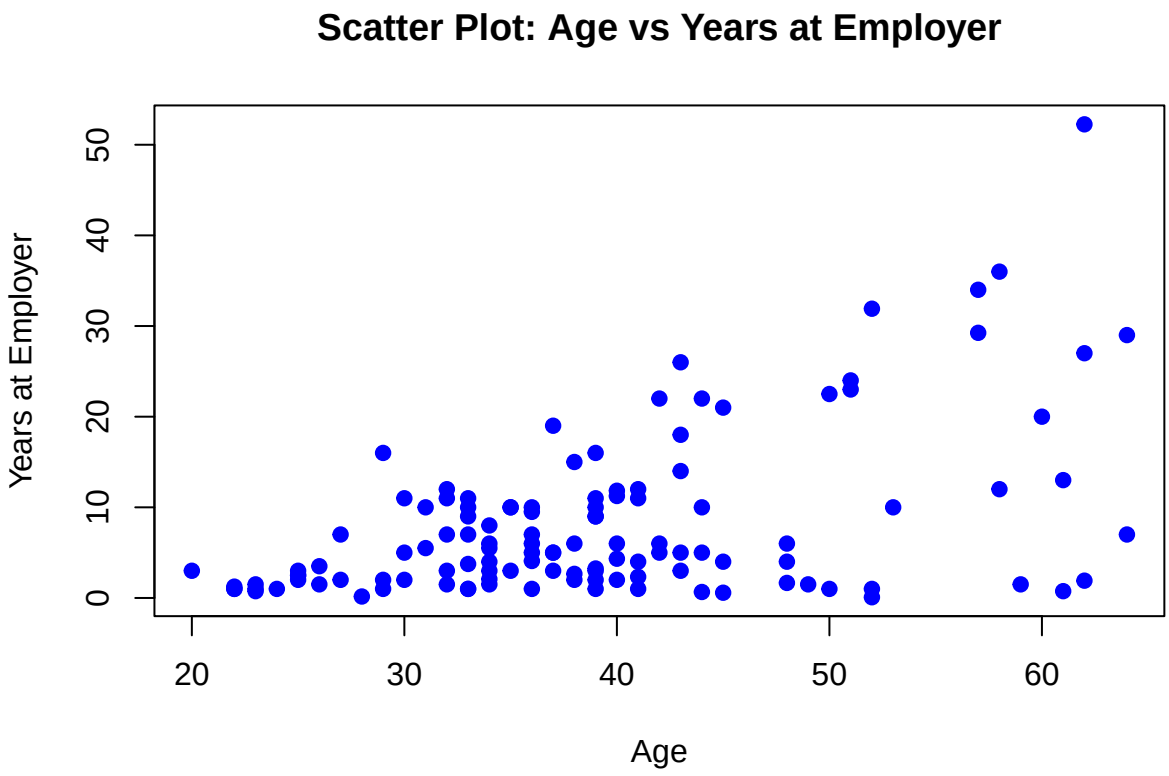

```
barplot(table(employee_data$Turn_Down_Job_Offer), main="Turn Down Job Offer Likelihood", col=rainbow(le
```



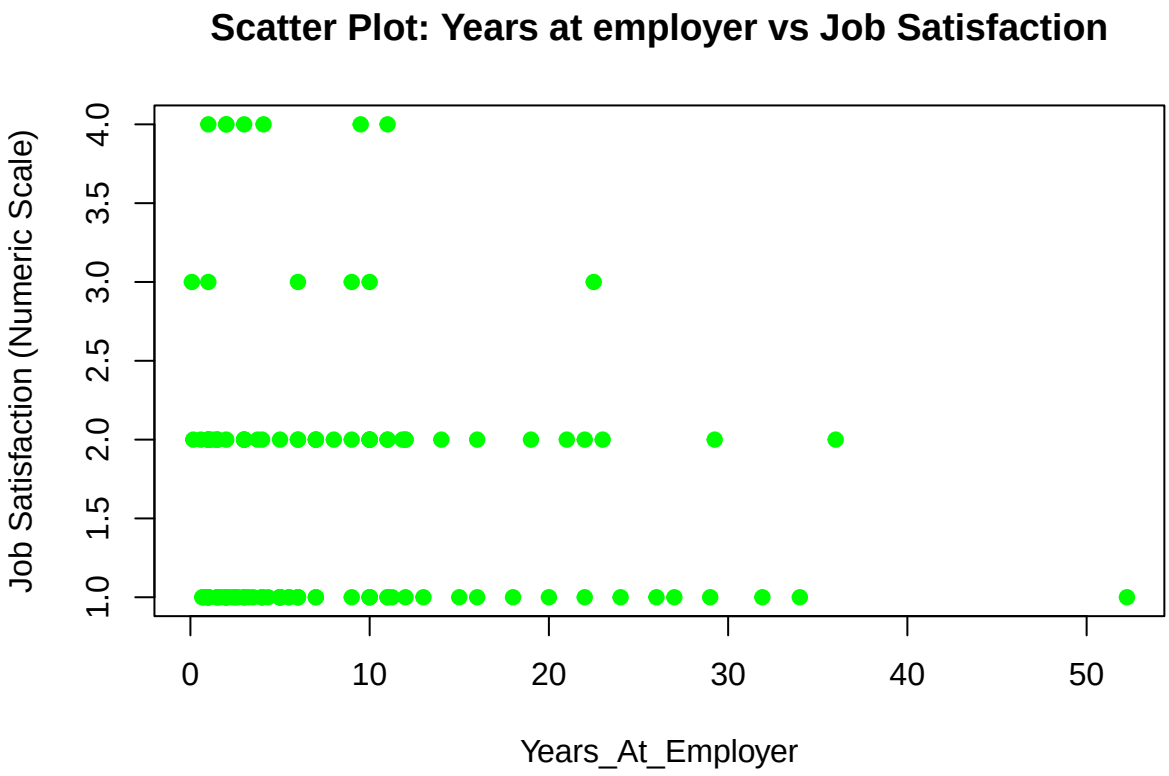

```
pie(table(employee_data$Workplace_Relations), main="Workplace Relations",
    col=rainbow(length(table(employee_data$Workplace_Relations))),
    labels=c("Very Good", "Good", "So So", "Bad", "Very Bad"))
```



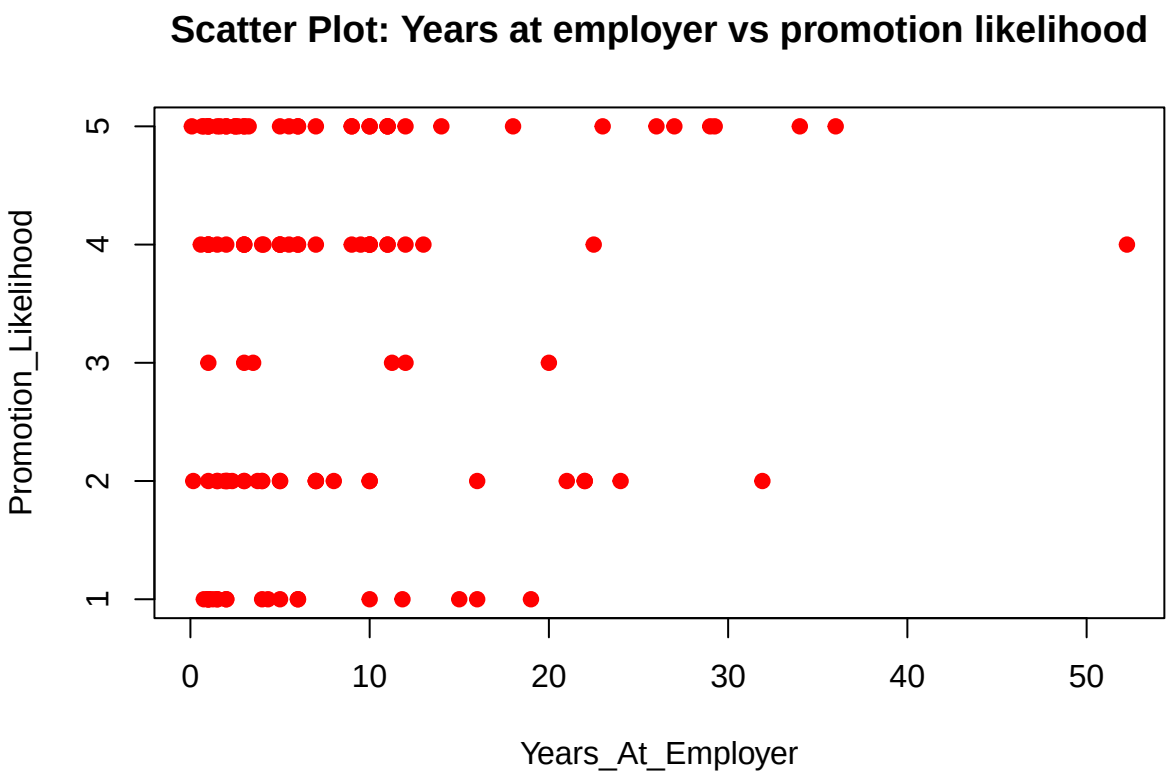

```
plot(employee_data$Age, employee_data$Years_At_Employer, main="Scatter Plot: Age vs Years at Employer",
```



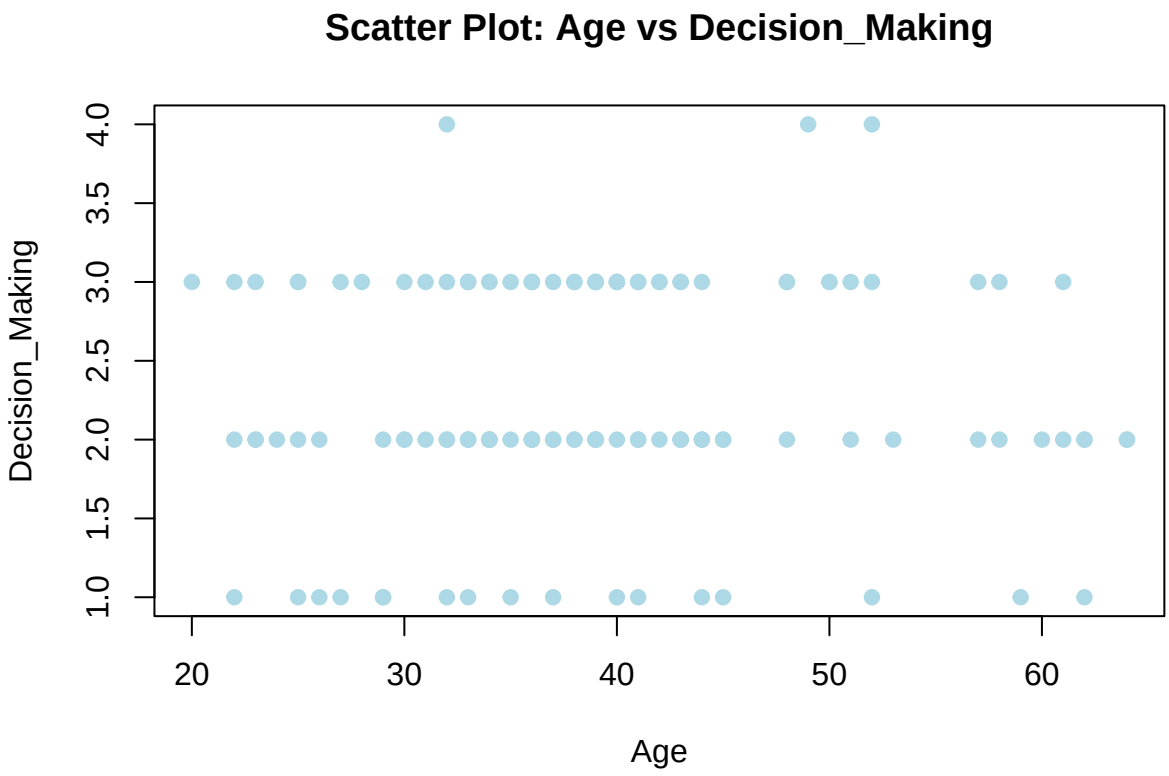

```
plot(employee_data$Years_At_Employer, as.numeric(employee_data$Job_Satisfaction), main="Scatter Plot: Y
```



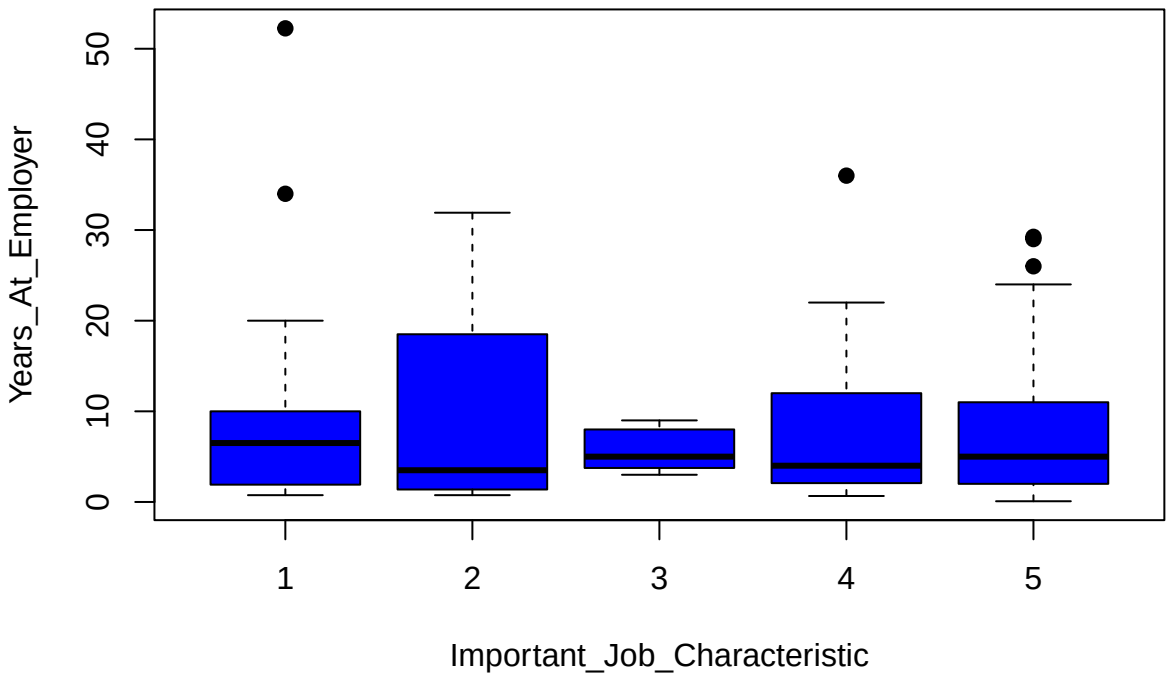

```
plot(employee_data$Years_At_Employer, employee_data$Promotion_Likelihood, main="Scatter Plot: Years at
```




```
plot(employee_data$Age, employee_data$Decision_Making, main="Scatter Plot: Age vs Decision_Making", xlab
```




```
plot(employee_data$Important_Job_Characteristic, employee_data$Years_At_Employer, main="Scatter Plot: In
```


Scatter Plot: Important_Job_Characteristic vs Years_At_Employer
Years_At_Employer
0
10
20
30
40
50
1
2
3
4
5
Important_Job_Characteristic