Assignment 11

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Calling the library and data file

##number of workers needed each day of the week and package handlers required

```r
Workers <- matrix(c("Sunday","Monday","Tuesday","Wednesday","Thursday","Friday","Saturday",
18,27,22,26,25,21,19),ncol=2,byrow = F)
colnames(Workers) <- c("Day", "Workers_Required")
as.table(Workers)
```

```
##   Day       Workers_Required
## A Sunday    18
## B Monday    27
## C Tuesday   22
## D Wednesday 26
## E Thursday  25
## F Friday    21
## G Saturday  19
```

```r
Package_Handler_Workers <- matrix(c(1,2,3,4,5,6,7,
                              "Sunday and Monday","Monday and Tuesday","Tuesday and Wednesday","Wednes
                              "$775","$800","$800","$800","$800","$775","$750"),ncol=3,byrow=F)

colnames(Package_Handler_Workers) <- c("Shift", "Days_Off", "Wage")
as.table(Package_Handler_Workers)
```

```
##   Shift Days_Off              Wage
## A 1     Sunday and Monday     $775
## B 2     Monday and Tuesday    $800
## C 3     Tuesday and Wednesday $800
## D 4     Wednesday and Thursday $800
## E 5     Thursday and Friday   $800
## F 6     Friday and Saturday   $775
## G 7     Saturday and Sunday   $750
```

##Solving the objective function and the model

```r
solve(AP)
```

```
## [1] 0
```

```
get.objective(AP)
```

```
## [1] 25675
```

```
##The total cost to the firm  is $25,675.00
```

```
get.variables(AP)
```

```
## [1]  2  4  5  0  8  1 13
```

```
#The number of workers available each day are:

#"Sunday and Monday":2
#"Monday and Tuesday": 4
#"Tuesday and Wednesday": 5
#"Wednesday and Thursday": 0
#"Thursday and Friday": 8
#"Friday and Saturday": 1
#"Saturday and Sunday":13
```