Module 6 - Transportation Assignment

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2022-10-09

```
#install.packages("lpSolve")
```

```
library(lpSolve)
```

```
## Warning: package 'lpSolve' was built under R version 4.1.3
```

```
costs = matrix(c(622, 614, 630, 641, 645, 649), ncol = 3, byrow = TRUE)
costs
```

```
##      [,1] [,2] [,3]
## [1,]  622  614  630
## [2,]  641  645  649
```

Setting up Constraints

```
plant.signs = rep("<=", 2)
plantcap = c(100, 120)
warehouse.signs = rep(">=", 3)
warehousedemand = c(80, 60, 70)
```

Assign object variable

```
lptrans = lp.transport(costs, "min", plant.signs, plantcap, warehouse.signs, warehousedemand)
```

Seeing there is a solution

```
lptrans$status
```

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

Displaying the units matrix

```
lptrans$solution
```

```
##      [,1] [,2] [,3]
## [1,]    0   60   40
## [2,]   80    0   30
```

Seeing the total transportation cost. (We want to minimize this)

```
lptrans$objval
```

```
## [1] 132790
```