

MIS 64018 - Assignment 4

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Install and load library

```
#install.packages("lpSolveAPI")  
library(lpSolveAPI)
```

```
## Warning: package 'lpSolveAPI' was built under R version 4.0.3
```

Load the .lp file which was created in R by hand (no coding)

```
x <- read.lp("rharri74_4.lp") # create an lp object x  
x                               # display x
```

```
## Model name:  
##           a1    a2    a3    b1    b2    b3  
## Minimize  622   614   630   641   645   649  
## CapacityA    1    1    1    0    0    0  <=  100  
## CapacityB    0    0    0    1    1    1  <=  120  
## Capacity1    1    0    0    1    0    0  =    80  
## Capacity2    0    1    0    0    1    0  =    60  
## Capacity3    0    0    1    0    0    1  =    70  
## Kind        Std   Std   Std   Std   Std   Std  
## Type        Real  Real  Real  Real  Real  Real  
## Upper       Inf   Inf   Inf   Inf   Inf   Inf  
## Lower       0    0    0    0    0    0
```

Solve the lp model

```
solve(x)
```

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

```
get.objective(x)
```

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

```
get.variables(x)
```

```
## [1] 0 60 40 80 0 30
```

```
get.constraints(x)
```

```
## [1] 100 110 80 60 70
```