QMM bpalazzo_11

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11/16/2020

```r
library(lpSolveAPI)
x <- read.lp("QMMbpalazzo_11.lp")
x
```

```
## Model name:
##              x1   x2   x3   x4   x5   x6   x7
## Minimize    775  800  800  800  800  775  750
## Sunday        0    1    1    1    1    1    0  >=   18
## Monday        0    0    1    1    1    1    1  >=   27
## Tuesday       1    0    0    1    1    1    1  >=   22
## Wednesday     1    1    0    0    1    1    1  >=   26
## Thursday      1    1    1    0    0    1    1  >=   25
## Friday        1    1    1    1    0    0    1  >=   21
## Saturday      1    1    1    1    1    0    0  >=   19
## Kind        Std  Std  Std  Std  Std  Std  Std
## Type        Int  Int  Int  Int  Int  Int  Int
## Upper       Inf  Inf  Inf  Inf  Inf  Inf  Inf
## Lower         0    0    0    0    0    0    0
```

```r
solve(x)
```

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

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

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

The total cost of wages is $25,675.

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

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

We need 2 people for shift 1, 4 people for shift 2, 5 people for shift 3, no people for shift 4, 8 people for shift 5, 1 person for shift 6, and 13 people for shift 7.

For our staffing numbers, we need 18 people for Sunday, 27 people for Monday, 24 people for Tuesday, 28 people for Wednesday, 25 people for Thursday, 24 people for Friday, and 19 people for Saturday.