QMM Final Assignment

Group 1

```
library(lpSolveAPI)
group_project <- read.lp("C:/Users/sidda/Desktop/KSU_Fall/QMM/qmm_final.lp")
group_project
```

```
## Model name:
##   a linear program with 48 decision variables and 28 constraints
```

```
solve(group_project)
```

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

Here 0 indicates that it is possible to formulate the model and find solution. In this problem it means that we can allocate Students into 4 different groups by satifying both objective function and constraints.

```
get.objective(group_project)
```

```
## [1] 1060
```

It is the maximum value of objective function considering the constraints.

```
get.variables(group_project)
```

```
##  [1] 0 0 0 0 0 1 0 0 0 1 1 0 0 0 0 1 0 0 1 0 0 0 0 1 0 0 1 0 1 0 0 0 1 0 0 0 1 1
## [39] 0 0 0 0 0 1 0 0 0 0
```

Following are the groups to be formed to maximize the chance of success for each group based on above results:
Group 1 - 6,10,11
Group 2 - 4,7,12
Group 3 - 3,5,9
Group 4 - 1,2,8