# Assignment_4_1821_twu38

*Tianqi Wu*

*12/6/2018*

Both models use the package recommenderlab from R to learn the recommender.The first model uses method 'UBCF'(User Based Collaborative Filtering) with parameters: normalize = 'Z-score', method = 'Cosine', nn = 5. The RMSE is:

```
RMSE(test$rating,ratings[-train.id,][test.id,]$rating)
```

```
## [1] 1.036137
```

The second model uses method 'IBCF'(Item Based Collaborative Filtering) with default parametes. The RMSE is:

```
RMSE(test2$rating,ratings[-train.id,][test.id,]$rating)
```

```
## [1] 1.563345
```

Overall, the script may take around half an hour to run. The computer system is Macbook Pro 3.1GHz, 8GB memory.