Lab 1. Computing the Similarity Matrix

Determine how similar the first four USERS are with each other

```
similarity_users <- similarity(MovieLense[1:4, ],
                               method = "cosine",
                               which = "users")
```

Convert similarity_users class into a matrix and visualize it

```
as.matrix(similarity_users)
```

```
##           1         2         3         4
## 1 0.00000000 0.16893670 0.03827203 0.06634975
## 2 0.16893670 0.00000000 0.09706862 0.15310468
## 3 0.03827203 0.09706862 0.00000000 0.33343036
## 4 0.06634975 0.15310468 0.33343036 0.00000000
```

```
image(as.matrix(similarity_users), main = "User similarity")
```

Compute and visualize the similarity between the first four ITEMS

```
similarity_items <- similarity(MovieLense[, 1:4], method =
                                 "cosine", which = "items")
as.matrix(similarity_items)
```

```
##                   Toy Story (1995) GoldenEye (1995) Four Rooms (1995)
## Toy Story (1995)          0.0000000        0.4023822         0.3302448
## GoldenEye (1995)          0.4023822        0.0000000         0.2730692
## Four Rooms (1995)         0.3302448        0.2730692         0.0000000
## Get Shorty (1995)         0.4549379        0.5025708         0.3248664
##                   Get Shorty (1995)
## Toy Story (1995)          0.4549379
## GoldenEye (1995)          0.5025708
## Four Rooms (1995)         0.3248664
## Get Shorty (1995)         0.0000000
```

```
image(as.matrix(similarity_items), main = "Item similarity")
```