RS Assignment Part 2 UBCF Task Guide

1. What I have implemented:

I updated class MeanSquaredDifferenceMetric.java in package similarity.metric to implement the mean squared difference metric, and class CosineMetric.java in the same package to implement the Cosine similarity metric.

I added a new class named ThresholdNeighbourhood.java in package alg.ub.neighbourhood to implement the threshold neighbourhood approach.

Lastly, I created new classes WeightedAveragePredictor.java and DeviationFromUserMeanPredictor.java in package alg.ub.predictor to implement the weighted average predictor and the deviation from user-mean predictor respectively.

2. How to execute my code for each experiment:

For Experiment 1: execute class ExecuteUB_Expt_1.java in package alg.ub to examine the effect of neighbourhood size on predictions. For experiment on each of the four predictors (non- personalised, simple average, weighted average, and deviation from user-mean), remove "//" before the predictor you want to examine and annotate the rest three.

For Experiment 2: execute class ExecuteUB_Expt_2.java in package alg.ub to examine the effect of neighbourhood threshold on predictions.

For Experiment 3: execute class ExecuteUB_Expt_3.java in package alg.ub to examine the effect of similarity metric on predictions. For experiment on each of the four similarity metrics (Cosine, Pearson correlation, Pearson correlation with significance weighting (N = 50), and mean squared difference), remove "//" before the metric you want to examine and annotate the rest three.