Assignment 1 Report

Members
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Top 3 Answerers

OwnerId	Count
9913	2838
177980	2318
1204	2042

Top 3 Tags

TagName	Id	Count
design	609	5162
c#	249	4931
java	76	4929

The dimensions of the expert matrix are 1160 x 974.

Summation value of the utility matrix is 41228
Highest row sum of the utility matrix is 1164
Highest column sum of the utility matrix is 1403

Summation value of the train matrix is 40586
Dimension of the test matrix is 174 x 146
Summation value of test matrix is 642

4)

Method	Rating Prediction Function	Metric	N=2	N=3	N=5
Item-Item	Simple average	RMSE	0.8191	0.7974	0.7763
	Weighted average	RMSE	0.8157	0.7933	0.7715
User-User	Simple average	RMSE	0.7081	0.6960	0.6828
	Weighted average	RMSE	0.7055	0.6928	0.6801

5)

Method	Metric	K=2	K=5	K=10
Without Regularisation	RMSE	0.7620	0.9479	1.1395
With Regularisation <hr> λ_1 = 0.001, λ_2 = 0.003	RMSE	0.7530	0.9100	1.1194
λ_1 = 0.05, λ_2 = 0.05	RMSE	0.7324	0.8851	1.0908
λ_1 = 0.50, λ_2 = 0.75	RMSE	0.7677	0.8281	0.9095

6)

KNNBaseline

Algorithm	Method	RMSE for N=2	RMSE for N=3	RMSE for N=5
Item-Item	Your method	0.8157	0.7933	0.7715
	Surprise	0.9462	0.9418	0.9167
User-User	Your method	0.7055	0.6928	0.6801
	Surprise	0.9631	0.9392	0.9260

SVD

Method	RMSE for K=2	RMSE for K=5	RMSE for K=10
Your method	0.7324	0.8281	0.9095
Surprise	0.8815	0.9172	0.9194