COL380-Assignment 1

Rishi Shah

31st January, 2022

Contents

1 Accuracy

The precision and recall computed as per the given instructions between our output and user_gt.txt for $k = 5, 10, 15$ are:

1. **k = 5:** Precision: 0.1741 Recall: 0.1234

2. **k = 10:** Precision: 0.1633 Recall: 0.1877

3. **k = 15:** Precision: 0.1500 Recall: 0.2282

2 Average Prediction Time per User(in ms)

		C		
		5	10	24
	2	6.68	4.96	4.55
N	5	6.81	5.12	4.30
	10	6.97	5.05	4.45

Table 1: $k = 5$

		C		
		5	10	24
	2	9.49	6.61	4.62
N	5	8.83	6.42	4.42
	10	8.26	6.18	4.55

Table 2: $k = 10$

	C		
	5	10	24
2	11.32	7.65	5.87
5	10.56	7.46	5.33
10	9.89	7.37	5.61

Table 3: $k = 15$

3   Memory Usage per Node(in GB)

	C		
	5	10	24
2	5.07	5.16	5.17
5	5.10	5.12	5.19
10	5.11	5.12	5.13

Table 4: $k = 5$

	C		
	5	10	24
2	5.08	5.12	5.13
5	5.08	5.13	5.13
10	5.07	5.12	5.13

Table 5: $k = 10$

	C		
	5	10	24
2	5.12	5.16	5.17
5	5.13	5.15	5.17
10	5.13	5.16	5.18

Table 6: $k = 15$

4   Output

The following link contains the top k predictions for each user in user.txt file for $k = 5, 10, 15$. Link