

## Lab Class IR

### Exercise 1 : User Models

Describe the user model of each of the following effectiveness measures as simple as possible (max. 2–3 sentences, in your own words):

- (a) Mean Reciprocal Rank (MRR)
- (b) Normalized Discounted Cumulative Gain (nDCG)
- (c) Precision@ $k$  (at rank  $k$ )