

Here like & ratings are used has to provide { If some users are lazy, they won't hit like / gives ratings even though they are interested ; so implicit ratings will provide for that

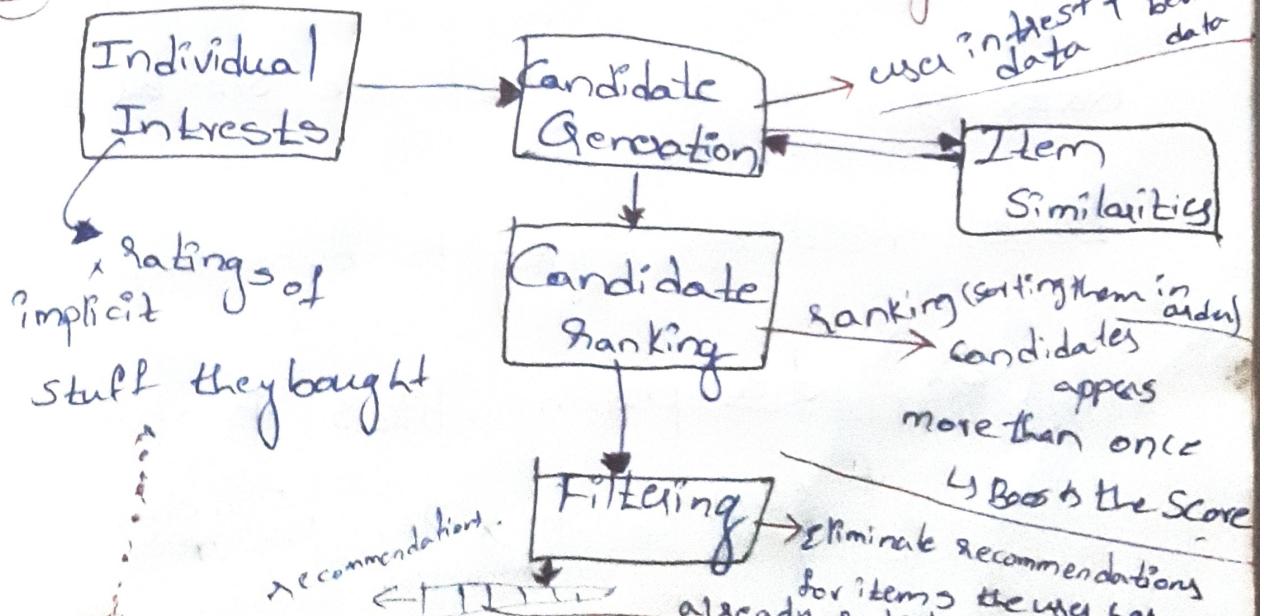
Implicit Ratings:

- ↳ products brought in the past
- ↳ Length of the video watched / audio listened

↳ Based on this interest recommendation system understands how much interest user is having.

Top N Recommender Architecture.

① Item Based collaborative filtering.



↳ Ideally this interest data is Normalised using techniques such as mean Centering,

Z-Scores to ensure that the data is comparable b/w users.

1st Step: → Generate recommendation Candidate  
(or)

Candidate Generation

↳ Items we think might be interesting to user based on the past behaviour.

↳ Candidate Generation phase, stores the data of all the items a user indicated interest in before and consult another data store of items that are similar to those based on aggregate behaviour.

{ Ex:- If a person likes Baahubali,

& other person likes ~~Prabhas~~ movies who likes baahubali also

↳ So, here it will store (Candidate Generation)  
Baahubali + Prabhas movies.

↳ In this phase, we will assign some scores to each candidate (based on what I rated the items they came from, and how strong the similarities are between the items).

↳ If the scores are not high enough then we remove those candidates.

## 2<sup>nd</sup> Step:- Candidate Ranking

↳ Many candidates will appear more than once

↳ So, we need to combine together using some methods like boosting their score.

↳ Now, we will sort the scores and we will take top-N Recommendations.

↳ This stage has more access to more information about the recommendation candidates, so that it will use average review scores in order to boost results.

↳ when we are taking average reviews; for some popular (or) highly-rated items, some filtering is used before presenting the final sorted list of recommendation candidates to the user.

### Step 3: Filtering

↳ we will eliminate recommendations for items the user has already rated  
Because we don't want to recommend things which are already seen

② predicted ratings of every item by every user.

