2️⃣

Meeting 2 (3rd April)

Referring back to Schedule

1. **Research Questions**
    a. How does the performance of the proposed hybrid model compare to individual models under different conditions (with and without text, sentiment) i.e., NCF and CBF.
    b. How does the performance of the proposed hybrid model compare to other state-of-the-art recommendation algorithms, such as non-negative matrix factorisation etc?
    c. How does the incorporation of sentiment analysis of user reviews affect the performance of recommendation systems?
    d. How does the incorporation of text analysis of user reviews affect the performance of recommendation systems?
2. **Literature Review**
    a. Still doing it in a rough - broken it into sections:
        i. Recommender Systems in E-commerce
        ii. Content Filtering
        iii. Collaborative Filtering
        iv. Deep Learning in RS
        v. Text Analysis in RS
        vi. Hybrid Models
        vii. Evaluation Methods
        viii. Summary
    b. Pieces don’t flow yet
        i. Suggestions
            1. Use a framework and classify the papers you reading.

2. Morphological box —> logically decompose the problem into a number of variables/factors for which solutions or ideas can be identified

3. **Scope**
    a. Research sole focus is on developing and evaluating the impact and performance of Hybrid Multi-Modal RS using text and sentiment
    b. We do not investigate evaluation methods, ranking criteria, etc
4. **Methodology**
    a. We have three main models that are the basis of the work.
        i. A neural collaborative filtering RS,
        ii. a content based filtering RS and
        iii. a hybrid of the two

Looking forward this Month (April)

1. Literature Review

- consolidate literature review
    - complete rough
    - make it flow
        - ideas need to lead one another. We are telling a story

2. Data Collection and Exploration

- Collect data
    - get subset of data
        - choose appropriate data
        - maybe randomise data across multiple categories
- explore the data
    - features
    - descriptive analysis

Quick Notes

Content Based Filtering Model (CB)

- used for text
    - modelled using a word2vec algorithm

Collaborative Filtering Model (CF)

- used for ratings
    - modelled using neural network

Hybrid

- Combining two neural networks (CB + CF)