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# Algorithms for Data Science

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## 1 Project Overview

The objective of this programming assignment is to be able to implement a system for recommending items (e.g., movies), using collaborative filtering methods

NOTES: SISSI Link: <https://phparis.net/slides/algo4ds/week5/project.pdf>

Dataset:

Max: 5 pages

Date: 2 nov

## 2 Installation and Usage

Download, unzip the python script. If errors, install missing dependencies.

Run: `"./filtering.py train_ratings.csv 0.05"`

## 3 Database

We were given an dataset . What we did with it. did we use other dataset?

## 4 Implementation

Preparations of the algorithms There thre main algorithms: - filtering algorithm - similiaryt cimputaiton algorithm - rating prediction? Outputs.

### 4.1 Database preparation

mini fuctions, what we did

### 4.2 Filtering Algorithm

User-user vs Item-item

What we choose, why? Explain basic version, and otimizations

### 4.3 Similarity Computation

Similarity users vs Similarity Movies

What we choose, why? Explain basic version, and otimizations

## 4.4 Rating Prediction

Missing rating

## 4.5 Output

idk execution time, memory used, for a selection of parameters: similarity threshold, number of users, number of items, etc evaluate is the precision of recommendations – how well the predicted ratings match the true ratings for each user. You might also want to explore how different similarity metrics affect performance

other evaluations are welcome and appreciated and will count in the final grade – if they are relevant to the project focus. - find maybe??

## 5 Analysis

Plots

## 6 Discussion

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