I created a book recommendation system, using nearest neighbor collaborative filtering (a kind of statistical analysis method that analyzes the similarities between you and thousands of other users, and then uses your ratings in the context of their ratings to try and figure out your tastes and preferences.

To run the project, firstly, you must download the “CSV dump” folder from http://www2.informatik.uni-freiburg.de/~cziegler/BX/. This has been omitted from the TP folder due to the large size. More specifically, use the BX-Books and BX-Ratings files. You may save these on the desktop.

**The following modules have been used in my project and must be installed (or imported) prior to running the project:**

1) PIL.Image (For displaying images)

(from PIL import Image, ImageTk)

2) random (from random import subsample)

Simply used to return a random sample of 5 from the list of recommended books

3) webbrowser

used to open up a link on the browser

4) string (used for basic string manipulation)

5) import simpleaudio as sa (used to play the book-flipping wav file)

6) import requests

used to obtain image from an internet link and convert it to usable form

7) from io import BytesIO

used to read the content of an image from an internet link and make it displayable

8) import os (used for text-to-voice)

9) from collections import defaultdict (used to make a 2D dictionary – matrix like structure)

10) import math (used for basic math stuff)

11) import csv (used to read in the contents of the CSV file)

12) import matplotlib.pyplot as plt (used to visualize the data we have, by using graphs)

13) tkinter

Download instructions:

On a Mac, all of these modules can be installed by opening the terminal, and simply running one of the following (on some systems, one works, on others both work).

* pip3 install <name of module>
* pip install <name of module>

Additionally, there are some media files included in my project directory. These must be saved on an appropriate location (say, the desktop) so that the images and media can be loaded and used.