```
from google.colab import files
data=files.upload()
```

Choose Files final.csv

- **final.csv**(text/csv) - 11948786 bytes, last modified: 22/1/2024 - 100% done

```
Saving final.csv to final.csv
```

```
import pandas as pd
import numpy as np
```

```
final_rating=pd.read_csv('final.csv')
final_rating
```

	User-ID	ISBN	Book-Rating	Book-Title	Book-Author	Year-Of-Publication	Publisher	Image-URL-S	
0	278418	0446520802	0	The Notebook	Nicholas Sparks	1996	Warner Books	http://images.amazon.com/images/P/0446520802.0...	http://ima
1	3363	0446520802	0	The Notebook	Nicholas Sparks	1996	Warner Books	http://images.amazon.com/images/P/0446520802.0...	http://ima
2	7158	0446520802	10	The Notebook	Nicholas Sparks	1996	Warner Books	http://images.amazon.com/images/P/0446520802.0...	http://ima
3	8253	0446520802	10	The Notebook	Nicholas Sparks	1996	Warner Books	http://images.amazon.com/images/P/0446520802.0...	http://ima
4	11676	0446520802	10	The Notebook	Nicholas Sparks	1996	Warner Books	http://images.amazon.com/images/P/0446520802.0...	http://ima
...	...	...	...	...	...	...	...	...	
45300	264317	0833563505	0	The Queen of the Damned (Vampire Chronicles (P...	Anne Rice	1999	Sagebrush Bound	http://images.amazon.com/images/P/0833563505.0...	http://ima
45301	266865	0531001725	10	The Catcher in the Rye	Jerome David Salinger	1973	Scholastic Library Pub	http://images.amazon.com/images/P/0531001725.0...	http://ima
45302	271284	0440910927	0	The Rainmaker	John Grisham	1995	Island	http://images.amazon.com/images/P/0440910927.0...	http://ima
45303	271705	B0001PIOX4	0	Fahrenheit 451	Ray Bradbury	1993	Simon & Schuster	http://images.amazon.com/images/P/B0001PIOX4.0...	http://imag
45304	275970	1586210661	9	Me Talk Pretty One Day	David Sedaris	2001	Time Warner Audio Major	http://images.amazon.com/images/P/1586210661.0...	http://ima

5305 rows × 10 columns

```
book_pivot=final_rating.pivot_table(columns='User-ID',index='Book-Title',values='Book-Rating')
book_pivot
```

User-ID	254	507	882	1424	1435	1733	1903	2033	2110	2276	...	32721	37712	55187	55548	277427	277478	277639	278137
Book-Title																			
1984	9.0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	...	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
1st to Die: A Novel	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	...	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
2nd Chance	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	...	NaN	NaN	NaN	NaN	NaN	NaN	0.0	NaN
A Bend in the Road	0.0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	...	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
A Case of Need	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	...	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wicked: The Life and Times of the Wicked	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	...	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN

```
book_pivot.fillna(0,inplace=True)
book_pivot
```

User-ID	254	507	882	1424	1435	1733	1903	2033	2110	2276	...	32721	37712	55187	55548	277427	277478	277639	278137	2
Book-Title																				
1984	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	...	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
1st to Die: A Novel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	...	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2nd Chance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	...	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
A Bend in the Road	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	...	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
A Case of Need	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	...	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Wicked: The Life and Times of the Wicked	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	...	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

```
from sklearn.metrics.pairwise import cosine_similarity
score=cosine_similarity(book_pivot)


final_rating.drop_duplicates(['Book-Title'],inplace=True)

final_rating.drop(['Image-URL-S', 'Image-URL-L'], axis=1, inplace=True)
```

```
def recommend(book_name):
    recommended_books = []
    index = np.where(book_pivot.index == book_name)[0][0]
    similar_items = sorted(list(enumerate(score[index])), key=lambda x: x[1], reverse=True)[1:6]

    for i in similar_items:
        recommended_books.append(book_pivot.index[i[0]])

    filtered_data = final_rating[final_rating['Book-Title'].isin(recommended_books)]

    for index, row in filtered_data.iterrows():
    # Display small image
      print(f'Book Title: {row["Book-Title"]}')
      print(f'Book Author: {row["Book-Author"]}')
      print(f'Year of Publication: {row["Year-Of-Publication"]}')
      print(f'Publisher: {row["Publisher"]}')
      print(f'Book-Rating: {row["Book-Rating"]}')
      print("--------------------------------")


# Make sure to replace 'pass' with the actual code you want to execute inside the last loop.



recommend('1984')
```

```
 Book Title: The Dark Half
 Book Author: Stephen King
 Year of Publication: 1994
 Publisher: Signet Book
 Book-Rating: 8
 --------------------------------
 Book Title: Harry Potter and the Chamber of Secrets (Book 2)
 Book Author: J. K. Rowling
 Year of Publication: 1999
 Publisher: Scholastic
 Book-Rating: 9
 --------------------------------
 Book Title: 1st to Die: A Novel
 Book Author: James Patterson
 Year of Publication: 2002
 Publisher: Warner Vision
 Book-Rating: 9
 --------------------------------
 Book Title: She's Come Undone (Oprah's Book Club)
 Book Author: Wally Lamb
 Year of Publication: 1998
 Publisher: Pocket
 Book-Rating: 7
 --------------------------------
 Book Title: The Golden Compass (His Dark Materials, Book 1)
 Book Author: PHILIP PULLMAN
 Year of Publication: 2002
 Publisher: Knopf Books for Young Readers
 Book-Rating: 9
 --------------------------------
```

```
    x = final_rating[final_rating['Book-Rating'] >5].head(50)
    for index, row in x.iterrows():
      print(f'Book Title: {row["Book-Title"]}')
      print(f'Book Author: {row["Book-Author"]}')
      print(f'Year of Publication: {row["Year-Of-Publication"]}')
      print(f'Publisher: {row["Publisher"]}')
      print(f'Book-Rating: {row["Book-Rating"]}')
      print("--------------------------------")
```

Book-Rating: 7

Book Title: Vinegar Hill (Oprah's Book Club (Paperback))
Book Author: A. Manette Ansay
Year of Publication: 1998
Publisher: Perennial
Book-Rating: 9

Book Title: We Were the Mulvaneys
Book Author: Joyce Carol Oates
Year of Publication: 1996
Publisher: Plume
Book-Rating: 10

Book Title: Jewel
Book Author: Bret Lott
Year of Publication: 1999
Publisher: Washington Square Press
Book-Rating: 10

Book Title: Riptide