In [9]:
```
import pandas as pd
from sklearn.feature_extraction.text import TfidfVectorizer
from sklearn.metrics.pairwise import cosine_similarity
```

In [10]:
```
df = pd.read_csv('https://raw.githubusercontent.com/rashida048/Some-NLP-Projects/ma
```

In [11]:
```
df['overview'] = df['overview'].fillna('')
```

In [12]:
```
tfidf = TfidfVectorizer(stop_words='english')
```

In [13]:
```
tfidf_matrix = tfidf.fit_transform(df['overview'])
```

In [14]:
```
cosine_sim = cosine_similarity(tfidf_matrix, tfidf_matrix)
```

In [15]:
```
def get_recommendations(title):
    idx = df[df['title'] == title].index[0]
    sim_scores = list(enumerate(cosine_sim[idx]))
    sim_scores = sorted(sim_scores, key=lambda x: x[1], reverse=True)
    sim_scores = sim_scores[1:11]
    movie_indices = [i[0] for i in sim_scores]
    return df['title'].iloc[movie_indices]
```

In [17]:
```
print(get_recommendations('The Dark Knight Rises'))
```

```
65                              The Dark Knight
299                              Batman Forever
428                              Batman Returns
1359                                      Batman
3854    Batman: The Dark Knight Returns, Part 2
119                               Batman Begins
2507                                  Slow Burn
9            Batman v Superman: Dawn of Justice
1181                                        JFK
210                              Batman & Robin
Name: title, dtype: object
```

In [18]:
```
print(get_recommendations('Batman'))
```

```
3                    The Dark Knight Rises
119                         Batman Begins
65                        The Dark Knight
428                        Batman Returns
210                        Batman & Robin
299                        Batman Forever
9       Batman v Superman: Dawn of Justice
3857                         Wicked Blood
1524                George and the Dragon
3389                Chairman of the Board
Name: title, dtype: object
```

In [24]:
```
print(get_recommendations('Batman Forever'))
```

```
3                         The Dark Knight Rises
119                                 Batman Begins
65                                The The Dark Knight
428                                Batman Returns
210                                Batman & Robin
3854    Batman: The Dark Knight Returns, Part 2
1359                                        Batman
4343                                     Cry_Wolf
174                           The Incredible Hulk
9             Batman v Superman: Dawn of Justice
Name: title, dtype: object
```

In [ ]: