



CINE MATH

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Programming Language

Python: This script is written in Python, a versatile and widely-used programming language known for its simplicity and readability. Python is suitable for this kind of project due to its robust support for various libraries and ease of use for scripting and complex applications.

Key Components and Libraries

Built-in Python Libraries

random: Used to generate random ratings for the movies. The uniform function from the random module is used to generate a floating-point number between 0 and 10.

No external libraries: This script only relies on built-in Python functionality, making it easy to run without needing to install additional packages.

Core Python Data Structures

Lists: The movie data is stored in a list. Each movie is represented as a dictionary within this list.

Dictionaries: Each movie's details (title, genre, industry, language, and rating) are stored in a dictionary. This allows for easy access and manipulation of movie attributes.



```
CNVFILLM FF1
options:
  . Add Movie
  . Search Movie by Title
  . Search Movie by Genre
  . Search Movie by Industry
  . Delete Movie
  . Display up to 10 Movies
  . Display Movies by Rating
  . Exit
choose an option: 1
Enter movie title: godfather
Enter movie genre: action,crime
Enter movie industry: hollywood
Enter movie language: english
Movie 'godfather' added with rating 6.7
```

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ADDING MOVIES

When a movie is added, it is stored as a dictionary in the movies list. A random rating between 0 and 10 is assigned using the random.uniform function.

```
Options:  
1. Add Movie  
2. Search Movie by Title  
3. Search Movie by Genre  
4. Search Movie by Industry  
5. Delete Movie  
6. Display up to 10 Movies  
7. Display Movies by Rating  
8. Exit
```

```
Choose an option: 2
```

```
Enter movie title to search: spyderman
```

```
{'title': 'spyderman', 'genre': 'action', 'industry': 'hollywood', 'language': 'english', 'rating': 1.1}
```

```
Options:  
1. Add Movie  
2. Search Movie by Title  
3. Search Movie by Genre  
4. Search Movie by Industry  
5. Delete Movie  
6. Display up to 10 Movies  
7. Display Movies by Rating  
8. Exit
```

```
Choose an option: 3
```

```
Enter movie genre to search: action
```

```
{'title': 'bhubali', 'genre': 'action', 'industry': 'tollywood', 'language': 'telugu', 'rating': 9.6}  
{'title': 'rrr', 'genre': 'action', 'industry': 'tollywood', 'language': 'telugu', 'rating': 8.4}  
{'title': 'spyderman', 'genre': 'action', 'industry': 'hollywood', 'language': 'english', 'rating': 1.1}
```

```
Options:  
1. Add Movie  
2. Search Movie by Title  
3. Search Movie by Genre  
4. Search Movie by Industry  
5. Delete Movie  
6. Display up to 10 Movies  
7. Display Movies by Rating  
8. Exit
```

```
Choose an option: 4
```

```
Enter movie industry to search: hollywood
```

```
{'title': 'godfather', 'genre': 'action,crime', 'industry': 'hollywood', 'language': 'english', 'rating': 6.7}  
{'title': 'spyderman', 'genre': 'action', 'industry': 'hollywood', 'language': 'english', 'rating': 1.1}
```

SEARCHING MOVIES

- By Title: Searches are case-insensitive and use a list comprehension to filter the movies list.
- By Genre: Similar to title search, this uses list comprehension to find movies matching the genre.
- By Industry: Uses list comprehension to filter movies based on the industry.

DELETING MOVIES

Uses list comprehension to create a new list excluding the movie with the specified title. This new list replaces the original movies list.

```
Options:  
1. Add Movie  
2. Search Movie by Title  
3. Search Movie by Genre  
4. Search Movie by Industry  
5. Delete Movie  
6. Display up to 10 Movies  
7. Display Movies by Rating  
8. Exit  
Choose an option: 5  
Enter movie title to delete: aa  
Movie 'aa' deleted if it existed.  
  
Options:  
1. Add Movie  
2. Search Movie by Title  
3. Search Movie by Genre  
4. Search Movie by Industry  
5. Delete Movie  
6. Display up to 10 Movies  
7. Display Movies by Rating  
8. Exit  
Choose an option: 7  
{'title': 'bhubali', 'genre': 'action', 'industry': 'tollywood', 'language': 'telugu', 'rating': 9.6}  
{'title': 'rrr', 'genre': 'action', 'industry': 'tollywood', 'language': 'telugu', 'rating': 8.4}  
{'title': 'kumari21f', 'genre': 'romance', 'industry': 'tollywood', 'language': 'telugu', 'rating': 7.2}  
{'title': 'godfather', 'genre': 'action,crime', 'industry': 'hollywood', 'language': 'english', 'rating': 6.7}  
{'title': 'spyderman', 'genre': 'action', 'industry': 'hollywood', 'language': 'english', 'rating': 1.1}
```

DISPLAYING MOVIES

- First 10 Movies: Uses list slicing to display up to the first 10 movies in the list.
- By Rating: Uses the sorted function with a lambda function to sort the movies by rating in descending order.

```
Options:  
1. Add Movie  
2. Search Movie by Title  
3. Search Movie by Genre  
4. Search Movie by Industry  
5. Delete Movie  
6. Display up to 10 Movies  
7. Display Movies by Rating  
8. Exit  
Choose an option: 6  
{'title': 'godfather', 'genre': 'action,crime', 'industry': 'hollywood', 'language': 'english', 'rating': 6.7}  
{'title': 'bhubali', 'genre': 'action', 'industry': 'tollywood', 'language': 'telugu', 'rating': 9.6}  
{'title': 'kumari21f', 'genre': 'romance', 'industry': 'tollywood', 'language': 'telugu', 'rating': 7.2}  
{'title': 'rrr', 'genre': 'action', 'industry': 'tollywood', 'language': 'telugu', 'rating': 8.4}  
{'title': 'aa', 'genre': 'scify', 'industry': 'tollywood', 'language': 'telugu', 'rating': 1.3}  
{'title': 'spyderman', 'genre': 'action', 'industry': 'hollywood', 'language': 'english', 'rating': 1.1}
```

```
Options:  
1. Add Movie  
2. Search Movie by Title  
3. Search Movie by Genre  
4. Search Movie by Industry  
5. Delete Movie  
6. Display up to 10 Movies  
7. Display Movies by Rating  
8. Exit  
Choose an option: 6  
{'title': 'godfather', 'genre': 'action,crime', 'industry': 'hollywood', 'language': 'english', 'rating': 6.7}  
{'title': 'bhubali', 'genre': 'action', 'industry': 'tollywood', 'language': 'telugu', 'rating': 9.6}  
{'title': 'kumari21f', 'genre': 'romance', 'industry': 'tollywood', 'language': 'telugu', 'rating': 7.2}  
{'title': 'rrr', 'genre': 'action', 'industry': 'tollywood', 'language': 'telugu', 'rating': 8.4}  
{'title': 'aa', 'genre': 'scify', 'industry': 'tollywood', 'language': 'telugu', 'rating': 1.3}  
{'title': 'spyderman', 'genre': 'action', 'industry': 'hollywood', 'language': 'english', 'rating': 1.1}
```



Thank
you