My IMDb

You are required to write a program that implements a simple movie database. This movie database system aims to keep a database of the movies and perform operations such as searching for movies, searching for production companies, etc.

The Movie Database System should provide the following features:

- Maintains a list (using a Java Collection class) of Movie objects
- Each Movie object represents a movie
- Each movie should contain the following information:
    - Title
    - Year of Release
    - Genre (A movie can have up to three different genres)
    - Running Time (in minutes)
    - Production Company
    - Budget
    - Revenue
- Lists the details of an existing movie (or movies)
- Produces a report of movies based on some criteria
- Produces different statistics of the movies and production companies
- Loads a list of movies from a text file

When the movie database system starts, it should automatically load a text file called “movies.txt", which contains details of all movies currently kept by the database. The actual format of this text file is described later in this document. The data loaded should be stored in some appropriate data structures.

Main Menu

When the program is running, it should repeatedly display the command line based main menu with these options:

1) *Search By Movie Title*
2) *Search By Release Year*
3) *Search By Genre*
4) *Search By Production Company*
5) *Search By Running Time*
6) *List of Top 10 Movies*
7) *List of Production Companies and the Count of their Produced Movies*
8) *Exit*

Inputs other than 1-8 should be rejected, and an error message should be printed. The menu should be displayed repeatedly until the user chooses Option (8).

If the user chooses option (1), you should ask the user to input a movie name and then search the database for any movie with the specific name. If found, display all information of this movie, or display “No such movie with this name” if not found. The search needs to be case-insensitive.

If the user chooses option (2), you should ask the user to input a year and then search the database for any movie with the specific year of release. If found, display all the movies, or display “No such movie with this release year” if not found.

If the user chooses option (3), you should ask the user to input a genre and then search the database for any movie with the specific genre. If found, display all the movies, or display “No such movie with this genre” if not found.

If the user chooses option (4), you should ask the user to input a production company and then search the database for any movie with the specific production company. If found, display all the movies or display “No such movie with this production company” if not found. The search needs to be case insensitive.

If the user chooses option (5), you should ask the user to input two numbers as range and then search the database for any movie with a running time in this range. If found, display all the movie or display “No such movie with this running time range” if not found.

If the user chooses option (6), display the top ten movies based on profit (positive difference between revenue and budget). You do not need to take any input from the users.

If the user chooses option (7), display all the production companies and the total number of movies they produced. You do not need to take any input from the users.

If the user chooses option (8), the program should exit.

Inputs other than 1-8 to this main menu should be rejected, and an error message should be printed.

Input File Format

The input data file (movies.txt) has the following format for each line: (Note that there is no space between a word and a comma).

Name,ReleaseYear,Genre1,Genre2,Genre3,RunningTime,ProductionCompany,Budget,Revenue

Name, Genre1, Genre2, Genre3, and ProductionCompany are Strings. Genre2 and Genre3 can be empty.
ReleaseYear, RunningTime, Budget, and Revenue are positive integers.