Homework #4 Help
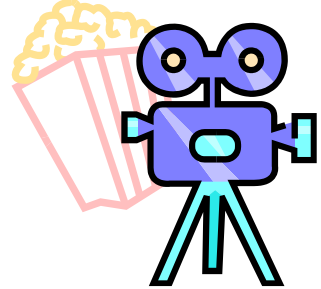
Background Information

Each year, hundreds of millions of Americans go to the theaters for at least one movie. According to an MPAA study, the average moviegoer saw about 8.5 films. All told, ticket sales amounted to $11.1 billion revenue during 2015.

Problem Statement

In this assignment, we wish to create a database to store and analyze the top 15 highest-grossing movies from the year 2015.

Instructions

IMPORTANT: This is not the actual Homework for your section. You will not receive any credit for completing this project.

IMPORTANT: This assignment requires the Windows version of Microsoft 365. macOS users can access a ready-to-use version through Windows Virtual Desktop by following the instructions at https://cs101.wvu.edu/wvd.

IMPORTANT: Complete the steps below in the order they are given. Completing the steps out of order may complicate the assignment or result in an incorrect result.

1.   Create a new Microsoft Access database named **hwhelp4_bosp_*lastname_firstname*.accdb**.

2.   We would like to begin by making a table to store the production company names.

   a.   Create a table named *ProductionCompanies* to store the names of the production companies and their abbreviations. Designate the abbreviation as primary key.

   b.   Enter records for all production companies below.

   HINT: The *ProductionCompanies* table will contain 10 records.

Company Abbreviation	Company Name
BV	Buena Vista
WB	Warner Bros.
LGF	Lions Gate
SONY	Sony
UNI	Universal
DW	DreamWorks
FOX	20th Century Fox
WEIN	Weinstein Company
MGM	Metro-Goldwyn-Mayer
PAR	Paramount

3. We need to store information on various movie genres.

    a. Create a table named *Genres* to store the names of the genres and their abbreviations. Designate the genre abbreviation as primary key.

    b. Enter records for all genres below.

        HINT: The *Genres* table will contain 9 records.

Genre Abbreviation	Genre Name
COM	Comedy
DRM	Drama
CRM	Crime
ANI	Animation
ACT	Action
SCF	Science Fiction
FAN	Fantasy
ROM	Romance
DOC	Documentary

4. To finish adding our dataset, we must store information about the movies.

    a. Create a table named *Movies* to store information on each of our movies (listed below under Step 4b). Some requirements for this table appear below.

        IMPORTANT: Completely define the *Movies* table before entering records.

        i.   For the primary key, use an AutoNumber-type field to store an ID number.

        ii. Provide a field to store the movie name.

        iii. Provide a field to store the production company. Using a lookup field to the *ProductionCompanies* table, allow the user to select the production company abbreviation and name (e.g., "WB | Warner Bros.") from a dropdown list.

             Do not hide the key column. Store the value of the production

company abbreviation field. Enable data integrity, restricting deletes, on the relationship created by the Lookup Wizard.

iv. Provide a field to store the genre. Using a lookup field to the *Genres* table, allow the user to select the genre abbreviation and name (e.g., "DRM | Drama") from a dropdown list.

Do not hide the key column. Store the value of the genre abbreviation field. Enable data integrity, restricting deletes, on the relationship created by the Lookup Wizard.

v. Provide a field formatted as currency with no decimal places to store the movie's budget.

vi. Provide a field formatted as currency with no decimal places to store the movie's domestic revenue.

vii. Provide a field formatted as a percentage with no decimal places to store the movie's rating on Rotten Tomatoes. Use the *Double* field size.

viii. Provide a short date-formatted date/time field to store the film's release date.

ix. Provide a field to indicate if the movie is a sequel. Using a lookup field, allow the user to select the value from a dropdown list. Permit the user to choose only from these values:

◇ Yes

◇ No

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b. Enter the movie data below into your *Movies* table as appropriate. The below information is from the year 2015 [1], [2].

HINT: The *Movies* table will contain 15 records. The budget is entered in millions.

Movie Name	Prod Co.	Genre	Budget	Domestic Revenue	Rtg	Rel. Date	Sequel
Star Wars: The Force Awakens	BV	Sci-Fi	$245,000,000	$936,662,225	92%	12/18/15	Y
Jurassic World	UNI	Sci-Fi	$150,000,000	$652,270,625	71%	6/12/15	Y
Avengers: Age of Ultron	BV	Action	$250,000,000	$459,005,868	75%	5/1/15	Y
Inside Out	BV	Anim.	$175,000,000	$356,461,711	98%	6/19/15	N
Furious 7	UNI	Action	$190,000,000	$353,007,020	79%	4/3/15	Y
Minions	UNI	Anim.	$74,000,000	$336,045,770	56%	7/10/15	Y
The Hunger Games: Mockingjay - Part 2	LGF	Action	$160,000,000	$281,723,902	70%	11/20/15	Y
The Martian	FOX	Sci-Fi	$108,000,000	$228,433,663	92%	10/2/15	N
Cinderella	BV	Fantasy	$95,000,000	$201,151,353	83%	3/13/15	N
Spectre	SONY	Action	$245,000,000	$200,074,609	65%	11/6/15	Y
Mission: Impossible - Rogue Nation	PAR	Action	$150,000,000	$195,042,377	93%	7/31/15	Y
Pitch Perfect 2	UNI	Comedy	$29,000,000	$184,296,230	66%	5/15/15	Y
The Revenant	FOX	Action	$135,000,000	$183,637,894	82%	12/25/15	N
Ant-Man	BV	Action	$130,000,000	$180,202,163	81%	7/17/15	N
Home	FOX	Anim.	$135,000,000	$177,397,510	47%	3/27/15	N

5. Create separate queries to provide the information requested below. Name each query after the step in which it appears (e.g., name the query in Step 5a as *Query5A*).

   HINT: Run your queries to test them. Make sure that they display all and only the records that you would expect to appear.

   a. Create a query to display information on each movie. List the movie name, production company name, genre name, budget, domestic revenue, rating, and release date.

      Sort by rating and domestic revenue, both in descending order.

      HINT: This query will show 15 records and 7 fields.

   b. We wish to calculate the profit for each movie. Create a query listing the movie name, budget, and domestic revenue. Also, include a field to calculate profit.

      You can calculate profit using the formula:
      $$([Movies.DomesticRevenue] - [Movies.Budget])$$

      Format the calculated field as currency with no decimal places. Sort by profit in descending order.

      HINT: This query will show 15 records and 4 fields.

   c. Create a query to view information on movies with good ratings. List the movie name, genre name, and domestic revenue.

      Only display movies with a rating of at least 70% (≥ 0.70). Do not show the rating in the results.

      HINT: This query will show 11 records and 3 fields.

   d. We wish to calculate financials for each production company. Create a query that, for each production company name, lists the sum of budgets and the sum of domestic revenue.

      Format the sums as currency with no decimal places.

      HINT: This query will show 6 records and 3 fields.

e. Create a query listing, for each genre name, the count of its movies and average of domestic revenue.

Your results must include all genres, even if they have no movies.

Format the average of domestic revenue as currency with no decimal places.

HINT: This query will show 9 records and 3 fields.

6. Using the Form Wizard, create a form with subform. The main form should display the full production company name. The subform must display a datasheet with all *Movies* table fields.

Name the main form *CompanyData* and the subform *CompanyDataSubform*.

7. Using the Report Wizard, create a report to show the results of the *Query5A* query. Display all fields from the query.

View by genre and sort by movie name in ascending order. Use a stepped layout and landscape page orientation. Name the report *MovieSummary*.

Ensure the full widths of all columns are visible on the report.

8. We need to create a new table to store analysis questions responses.

a. Create a table named *AnalysisQuestions* with the fields below. Use appropriate field types and designate a good primary key.

Table: *AnalysisQuestions*	
Field Name	**Description**
QuestionNumber	Question being answered.
Response	Response to the analysis question prompt.

9. In the *AnalysisQuestions* table, answer three of the five analysis questions below. Respond to one question per record.

a. How does Rotten Tomatoes generate its tomatometer ratings? Do you think this method accurately represents the quality of a movie?

b. All of the top 15 movies were released on a Friday. Why do you think the production companies choose to release movies on Fridays?

c. Several of the top movies were sequels or part of a series. Why might these films be attractive to production companies?

d. Do you see any patterns in the movie release dates? Explain why or why not.

e. What other ways can production companies make money from films other than domestic ticket sales?

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10. Run the Compact and Repair Database utility on your database. Ignore any errors you receive when running the utility.

Grading Rubric

This is a practice assignment and is worth no points. A comparable Homework would be worth 60 points and graded using this rubric, with partial credit awarded as appropriate:

Steps 2a-b	3 points total	Step 6	3 points
Steps 3a-b	3 points total	Step 7	3 points
Step 4a	5 points	Step 8a	2 points
Step 4b	3.5 points	Steps 9a-e (pick 4 of 5)	2.5 points each
Steps 5a-e	3.5 points each		

The analysis questions in Steps 9a-e can be evaluated using this rubric:

Standard	Meets Requirements (1.25 points)	Does Not Meet Requirements (0 points)
Answer is reasonable.	Answer addresses the question prompt and is factually correct or a reasonable interpretation of available data.	Answer does not address the question prompt, is factually incorrect, or is an unreasonable interpretation of available data.
Answer is supported.	Logical rationale is provided to support the given answer.	Logical rationale is not provided to support the given answer.

References

[1] "Rotten Tomatoes." Available: *http://www.rottentomatoes.com/*.
[2] "Box Office Mojo." Available: *http://www.boxofficemojo.com/*.