

Project Module - 2

Netflix Movies Data Analysis in SQL

Hrushikesh Shinde

1. Write a query to list all titles with their show_id, title, and type.

Ans:- SELECT show_id,title,type FROM netflix;

The screenshot shows the MySQL Workbench interface with the following details:

- File Bar:** File, Edt, View, Query, Database, Server, Tools, Scripting, Help.
- Navigator:** Schemas (imdb_analysis_project, netflix_analysis_project), Tables (netflix), Columns (show_id, type, title, director, cast, country, date_added, release_year, rating, duration, listed_in, description), Indexes, Foreign Keys, Triggers, Views, Stored Procedures, Functions.
- Query Editor:** NETFLIX PROJECT* tab. The code is:

```
1 -- Hrushikesh Shinde --
2 • create database Netflix_Analysis_Project;
3 • use Netflix_Analysis_Project;
4
5 -- Q1 query to list all titles with their show_id, title, and type.
6 • SELECT show_id,title,type FROM netflix;
7
```
- Result Grid:** Shows the output of the query:

show_id	title	type
s1	Dick Johnson Is Dead	Movie
s2	Blood & Water	TV Show
s3	Ganglands	TV Show
s4	Jailbirds New Orleans	TV Show
s5	Kota Factory	TV Show
s6	Midnight Mass	TV Show
s7	My Little Pony: A New Generation	Movie
s8	Sankofa	Movie
s9	The Great British Baking Show	TV Show
s10	The Starling	Movie
- Output:** Action Output table showing the execution log:

#	Time	Action	Message	Duration / Fetch
7	20:50:48	PREPARE stmt FROM 'INSERT INTO `netflix_analysis_project`.`netflix`(`show_id`, `type`, `title`, `director`, `cast`, `country`, `date_added`, `release_year`, `rating`, `duration`, `listed_in`, `description') VALUES (?,?,?,?,?,?,?,?,?,?,?,?,?)'	OK	0.000 sec
8	20:50:49	DEALLOCATE PREPARE stmt	OK	0.000 sec
9	20:51:04	use Netflix_Analysis_Project	0 row(s) affected	0.000 sec
10	20:51:17	SELECT show_id,title,type FROM netflix LIMIT 0, 1000	100 row(s) returned	0.000 sec / 0.000 sec
- System Bar:** Type here to search, system icons (Windows, network, battery, etc.), and system status (27°C, Partly cloudy, ENG, 13-10-2024, 20:51).

2. Write a query to display all columns for titles that are Movies.

Ans:- SELECT * FROM netflix WHERE type = 'Movie';

MySQL Workbench

Local instance MySQL80 ×

File Edit View Query Database Server Tools Scripting Help

Navigator: NETFLIX PROJECT ×

SCHEMAS

Filter objects

imdb_analysis_project

netflix_analysis_project

Tables

Columns

show_id

type

title

director

cast

country

date_added

release_year

rating

duration

listed_in

description

Indexes

Foreign Keys

Triggers

Views

Stored Procedures

Functions

Administration Schemas

Information

Table: netflix

Columns:

show_id	text
type	text
title	text
director	text
cast	text
country	text
date_added	text

Action Output

#	Time	Action	Message	Duration / Fetch
8	20:50:49	DEALLOCATE PREPARE stmt	OK	0.000 sec
9	20:51:04	use Netflix_Analysis_Project	0 row(s) affected	0.000 sec
10	20:51:17	SELECT show_id,title,type FROM netflix LIMIT 0, 1000	100 row(s) returned	0.000 sec / 0.000 sec
11	20:52:22	SELECT * FROM netflix WHERE type = 'Movie' LIMIT 0, 1000	55 row(s) returned	0.016 sec / 0.000 sec

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Result Grid | Form Editor | Field Types | Read Only

show_id type title director cast country date_added

show_id	type	title	director	cast	country	date_added
s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	Vanessa Hudgens, Kimiko Glenn, James Marsden...	United States	September 25
s7	Movie	My Little Pony: A New Generation	Robert Cullen, JosÃ© Luis Ucha	Kofi Ghanaba, Oyafumike Ogunlana, Alexander...	United States, Ghana, Burkina Faso, United Kingdom	September 24
s8	Movie	Sankofa	Halle Gerima	Melissa McCarthy, Chris O'Dowd, Kevin Kline, Tia... Luna Wedler, Jannis NiewÃ¶hrner, Milan Peschel...	United States	September 24
s10	Movie	The Starling	Theodore Melfi	Klara Castanho, Lucca Picon, JÃ¢lia Gomes, Mar...	Germany, Czech Republic	September 23
s13	Movie	Je Suis Karl	Christian Schwochow	Freida Pinto, Logan Marshall-Green, Robert Joh...	September 22	
s14	Movie	Confessions of an Invisible Girl	Bruno Garotti	Kamal Hassan, Meena, Gemini Ganesan, Heera ...	September 22	
s17	Movie	Europe's Most Dangerous Man: Otto Skorzeny i...	Pedro de Echave GarcÃ¡a, Pablo AzorÃ±n Williams		September 22	
s19	Movie	Intrusion	Adam Salky		September 22	
s23	Movie	Avai Shanmuchi	K.S. Ravikumar		September 21	

27°C Partly cloudy 20:52 13-10-2024

3. Write a query to list TV shows that were released in the year 2021.

Ans:- SELECT * FROM netflix WHERE type = 'TV Show' AND release_year = 2021;

MySQL Workbench

Local instance MySQL80 ×

File Edit View Query Database Server Tools Scripting Help

Navigator: NETFLIX PROJECT ×

Limit to 1000 rows

1 -- Hrushikesh Shinde --
2 • create database Netflix_Analysis_Project;
3 • use Netflix_Analysis_Project;
4
5 -- Q3 query to list TV shows that were released in the year 2021.
6 • SELECT * FROM netflix WHERE type = 'TV Show' AND release_year = 2021;
7
8
9

Result Grid | Filter Rows: Export: Wrap Cell Content: □

show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in
s2	TV Show	Blood & Water	Ama Qamata, Khosi Ngema, Gail Mabalane, Tha...	South Africa	September 24, 2021	2021	TV-MA	2 Seasons	International TV Shows	
s3	TV Show	Ganglands	Julien Ledercq	Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...	September 24, 2021	2021	TV-MA	1 Season	Crime TV Shows, Intern...	
s4	TV Show	Jailbirds New Orleans			September 24, 2021	2021	TV-MA	1 Season	Docuseries, Reality TV	
s5	TV Show	Kota Factory		Mayur More, Jitendra Kumar, Ranjan Raj, Alam ...	India	September 24, 2021	2021	TV-MA	2 Seasons	
s6	TV Show	Midnight Mass	Mike Flanagan	Kate Siegel, Zach Gilford, Hamish Linklater, Hen...	September 24, 2021	2021	TV-MA	1 Season	TV Dramas, TV Horror, '	
s9	TV Show	The Great British Baking Show	Andy Devonshire	Mel Giedroyc, Sue Perkins, Mary Berry, Paul Holl...	United Kingdom	September 24, 2021	2021	TV-14	9 Seasons	British TV Shows, Realit...
s11	TV Show	Vendetta: Truth, Lies and The Mafia			September 24, 2021	2021	TV-MA	1 Season	Crime TV Shows, Docus...	
s12	TV Show	Bangkok Breaking	Kongkiat Komesri	Sukollawat Kanarot, Sushar Manaying, Pavarit ...	September 23, 2021	2021	TV-MA	1 Season	Crime TV Shows, Intern...	
s15	TV Show	Crime Stories: India Detectives			September 22, 2021	2021	TV-MA	1 Season	British TV Shows, Crime	

Table: netflix

Columns:

show_id	text
type	text
title	text
director	text
cast	text
country	text
date_added	text

Action Output

#	Time	Action	Message	Duration / Fetch
9	20:51:04	use Netflix_Analysis_Project	0 row(s) affected	0.000 sec
10	20:51:17	SELECT show_id,title,type FROM netflix LIMIT 0, 1000	100 row(s) returned	0.000 sec / 0.000 sec
11	20:52:22	SELECT * FROM netflix WHERE type = 'Movie' LIMIT 0, 1000	55 row(s) returned	0.016 sec / 0.000 sec
12	20:53:01	SELECT * FROM netflix WHERE type = 'TV Show' AND release_year = 2021 LIMIT 0, 1000	31 row(s) returned	0.000 sec / 0.000 sec

Output:

Type here to search

27°C Partly cloudy

20:53 13-10-2024

4. Write a query to find all titles where the description contains the word family.

Ans:- SELECT * FROM netflix WHERE description LIKE '%family%';

The screenshot shows the MySQL Workbench interface. In the top-left, the 'Navigator' pane displays the 'NETFLIX PROJECT*' schema, which includes the 'imdb_analysis_project' and 'netflix_analysis_project' databases. The 'Columns' section under 'netflix' lists fields like show_id, type, title, director, cast, country, date_added, release_year, rating, duration, listed_in, and description. The main query editor window contains the following code:

```
-- Hrushikesh Shinde --
create database Netflix_Analysis_Project;
use Netflix_Analysis_Project;
-- Q4. query to find all titles where the description contains the word family.
SELECT * FROM netflix WHERE description LIKE '%family%';
```

Below the code, the 'Result Grid' shows a list of movies from the 'netflix' table. The results are:

show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in
s3	TV Show	Ganglands	Julien Ledercq	Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...	September 24, 2021	2021	TV-MA	1 Season	Crime TV Shows, Intern...	
s13	Movie	Je Suis Karl	Christian Schwobow	Luna Wedler, Jannis Niewöhner, Milan Peschel...	September 23, 2021	2021	TV-MA	127 min	Dramas, International M...	
s29	Movie	Dark Skies	Scott Stewart	Keri Russell, Josh Hamilton, J.K. Simmons, Dako...	September 19, 2021	2013	PG-13	97 min	Horror Movies, Sci-Fi & I...	
s85	Movie	Omo Ghetto: the Saga	JJC Skillz, Funke Akindele	Funke Akindele, Ayo Makun, Chioma Chukwuka ...	Nigeria	September 10, 2021	2020	TV-MA	147 min	Action & Adventure, Co...

The bottom part of the interface shows the 'Output' window with the history of executed SQL statements and their results. The session information indicates it's a 'Read Only' session.

5. Write a query to count the total number of titles in the dataset.

Ans:- SELECT COUNT(*) FROM netflix_titles;

The screenshot shows the MySQL Workbench interface. In the top-left, the Navigator pane displays the schema structure of the 'NETFLIX PROJECT' database, specifically the 'netflix_analysis_project' schema, which contains a single table named 'netflix'. The main area shows a SQL editor window with the following code:

```
1 -- Hrushikesh Shinde --
2 • create database Netflix_Analysis_Project;
3 • use Netflix_Analysis_Project;
4
5 -- Q5. query to count the total number of titles in the dataset.
6 • SELECT COUNT(*) FROM netflix;
```

Below the SQL editor is a Result Grid showing the output of the query:

COUNT(*)
100

At the bottom of the interface, there is a 'Result 5' tab showing the execution history of the queries run:

Action	Time	Output	Message	Duration / Fetch
11	20:52:22	SELECT * FROM netflix WHERE type = 'Movie' LIMIT 0, 1000	55 row(s) returned	0.016 sec / 0.000 sec
12	20:53:01	SELECT * FROM netflix WHERE type = 'TV Show' AND release_year = 2021 LIMIT 0, 1000	31 row(s) returned	0.000 sec / 0.000 sec
13	20:54:12	SELECT * FROM netflix WHERE description LIKE "%family%" LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
14	20:54:55	SELECT COUNT(*) FROM netflix LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

6. Write a query to find the average duration of all movies (in minutes, wherever the season is mentioned, consider 400 minutes per season).

Ans:- SELECT AVG(CAST(SUBSTRING(duration, 1, LENGTH(duration) -4) AS UNSIGNED)) AS avg_duration_in_minutes
FROM netflix
WHERE type = 'Movie';

The screenshot shows the MySQL Workbench interface with the following details:

- Navigator:** NETFLIX PROJECT*
- Schemas:** imdb_analysis_project, netflix_analysis_project (selected), netflix (selected), Columns, Indexes, Foreign Keys, Triggers, Views, Stored Procedures, Functions.
- Query Editor:** Contains the following SQL code:

```
1 -- Hrushikesh Shinde --
2 • create database Netflix_Analysis_Project;
3 • use Netflix_Analysis_Project;
4
5 -- Q6. query to find the average duration of all movies (in minutes, wherever the season is mentioned, consider 400 minutes per season).
6 • SELECT AVG(CAST(SUBSTRING(duration, 1, LENGTH(duration) -4) AS UNSIGNED)) AS avg_duration_in_minutes
7 FROM netflix
8 WHERE type = 'Movie';
9
10
```
- Result Grid:** Shows the result of the query: avg_duration_in_minutes | 100.7273
- Output Window:** Shows the history of actions taken:

#	Time	Action	Message	Duration / Fetch
14	20:54:55	SELECT COUNT(*) FROM netflix LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
15	20:56:08	SELECT AVG(CAST(SUBSTRIN(duration, 1, LENGTH(duration)-4) AS UNSIGNED)) AS avg_duration_in_...	Error Code: 1305. FUNCTION netflix_analysis_project.SUBSTRIN does not exist	0.000 sec
16	20:56:11	SELECT AVG(CAST(SUBSTRIN(duration, 1, LENGTH(duration)-4) AS UNSIGNED)) AS avg_duration_in_...	Error Code: 1305. FUNCTION netflix_analysis_project.SUBSTRIN does not exist	0.000 sec
17	20:56:33	SELECT AVG(CAST(SUBSTRING(duration, 1, LENGTH(duration)-4) AS UNSIGNED)) AS avg_duration_in_...	1 row(s) returned	0.015 sec / 0.000 sec
- System Bar:** Includes a search bar, taskbar icons (File Explorer, Task View, Start, Mail, Dell), system status (27°C Partly cloudy, ENG, 13-10-2024, 2056, 4 notifications).

7. Write a query to list the top 5 latest titles based on the date_added, sorted in descending order.

Ans:- SELECT show_id title, date_added FROM netflix ORDER BY date_added DESC LIMIT 5;

The screenshot shows the MySQL Workbench interface. In the top-left pane, the 'Schemas' tree shows two databases: 'imdb_analysis_project' and 'netflix_analysis_project'. Under 'netflix_analysis_project', there is a 'Tables' node with a single table named 'netflix'. The 'Columns' node lists fields: show_id, type, title, director, cast, country, date_added, release_year, rating, duration, listed_in, and description. The main query editor window contains the following SQL code:

```
-- Hrushikesh Shinde --
create database Netflix_Analysis_Project;
use Netflix_Analysis_Project;
-- Q7. query to list the top 5 latest titles based on the date_added, sorted in descending order.
SELECT show_id title, date_added FROM netflix ORDER BY date_added DESC LIMIT 5;
```

The results grid shows the output of the query:

title	date_added
s90	September 9, 2021
s89	September 9, 2021
s92	September 9, 2021
s91	September 9, 2021
s96	September 8, 2021

In the bottom-left pane, the 'Table: netflix' details are shown, listing columns: show_id, type, title, director, cast, country, date_added, and duration. The 'Output' pane at the bottom displays the execution log:

#	Time	Action	Message	Duration / Fetch
15	20:56:08	SELECT AVG(CAST(SUBSTR(duration, 1, LENGTH(duration)-4) AS UNSIGNED)) AS avg_duration_in...	Error Code: 1305. FUNCTION netflix_analysis_project.SUBSTR does not exist	0.000 sec
16	20:56:11	SELECT AVG(CAST(SUBSTR(duration, 1, LENGTH(duration)-4) AS UNSIGNED)) AS avg_duration_in...	Error Code: 1305. FUNCTION netflix_analysis_project.SUBSTR does not exist	0.000 sec
17	20:56:33	SELECT AVG(CAST(SUBSTRING(duration, 1, LENGTH(duration)-4) AS UNSIGNED)) AS avg_duration_in...	1 row(s) returned	0.015 sec / 0.000 sec
18	20:57:40	SELECT show_id title, date_added FROM netflix ORDER BY date_added DESC LIMIT 5	5 row(s) returned	0.015 sec / 0.000 sec

8. Write a query to list all titles along with the number of other titles by the same director. Include columns for show_id, title, director, and number_of_titles_by_director.

Ans:- SELECT

```
t.show_id,  
t.title,  
t.director,  
(SELECT COUNT(*)  
FROM netflix AS nt
```

```
WHERE nt.director = t.director AND nt.director IS NOT NULL) as number_of_titles_by_director
```

```
FROM netflix AS t
```

```
WHERE t.director IS NOT NULL;
```

The screenshot shows the MySQL Workbench interface with the following details:

- Navigator:** Shows the database structure with the schema `netflix_analysis_project` and table `netflix`.
- NETFLIX PROJECT*** tab: Contains the SQL query provided in the question.
- Result Grid:** Displays the results of the query, showing six rows of data:| show_id | title | director | number_of_titles_by_director |
| --- | --- | --- | --- |
| s1 | Dick Johnson Is Dead | Kirsten Johnson | 1 |
| s2 | Blood & Water | | 39 |
| s3 | Ganglands | Julien Ledercq | 1 |
| s4 | Jalibirds New Orleans | | 39 |
| s5 | Kota Factory | | 39 |
| s6 | Midnight Mass | Mike Flanagan | 1 |
- Output:** Shows the execution log with the following entries:| # | Time | Action | Message | Duration / Fetch |
| --- | --- | --- | --- | --- |
| 18 | 20:57:40 | SELECT show_id, title, date_added FROM netflix ORDER BY date_added DESC LIMIT 5 | 5 row(s) returned | 0.015 sec / 0.000 sec |
| 19 | 20:58:14 | SELECT show_id, title, date_added FROM netflix ORDER BY date_added DESC LIMIT 5 | 5 row(s) returned | 0.000 sec / 0.000 sec |
| 20 | 20:59:27 | SELECT t.show_id, t.title, t.director, (SELECT COUNT(*) FROM netflix AS nt WHERE nt.dir...) Error Code: 1146. Table 'netflix_analysis_project.netflixas' doesn't exist | Error Code: 1146. Table 'netflix_analysis_project.netflixas' doesn't exist | 0.000 sec |
| 21 | 20:59:40 | SELECT t.show_id, t.title, t.director, (SELECT COUNT(*) FROM netflix AS nt WHERE nt.dir...) 100 row(s) returned | 100 row(s) returned | 0.031 sec / 0.000 sec |

9. Write a query to find the total number of titles for each country. Display country and the count of titles.

Ans:- SELECT country, COUNT (*) AS total_titles
FROM netflix
WHERE country IS NOT NULL
GROUP BY country;

The screenshot shows the MySQL Workbench interface with the following details:

- Navigator:** NETFLIX PROJECT
- SCHEMAS:** netflix_analysis_project
- Tables:** netflix
- Columns:** show_id, type, title, director, cast, country, date_added, release_year, rating, duration, listed_in, description
- Result Grid:** Shows the query results:

country	total_titles
United States	17
South Africa	1
	41
India	6
United States, Ghana, Burkina Faso, United Kin...	1
United Kingdom	5
- Output:** Shows the execution log:

#	Time	Action	Message	Duration / Fetch
19	20:58:14	SELECT show_id, title, date_added FROM netflix ORDER BY date_added DESC LIMIT 5	5 row(s) returned	0.000 sec / 0.000 sec
20	20:59:27	SELECT t.show_id, t.title, t.director, (SELECT COUNT(*) FROM netflix AS nt WHERE nt.dir...) Error Code: 1146. Table 'netflix_analysis_project.netflixas' doesn't exist		0.000 sec
21	20:59:40	SELECT t.show_id, t.title, t.director, (SELECT COUNT(*) FROM netflix AS nt WHERE nt.dir...) 100 row(s) returned		0.031 sec / 0.000 sec
22	21:00:47	SELECT country,COUNT(*) AS total_titles FROM netflix WHERE country IS NOT NULL GROUP BY cou...	22 row(s) returned	0.000 sec / 0.000 sec

10. Write a query using a CASE statement to categorize titles into three categories based on their rating: Family for ratings G, PG, PG-13, Kids for TV-Y, TV-Y7, TV-G, and Adult for all other ratings.

Ans:- SELECT title, rating,

```
CASE
    WHEN rating IN ('G', 'PG', 'PG-13') THEN 'Family'
    WHEN rating IN ('TV-Y', 'TV-Y7', 'TV-G') THEN 'Kids'
    ELSE 'Adult'
END AS rating_category
```

FROM netflix;

The screenshot shows the MySQL Workbench interface with the following details:

- Navigator:** Shows the database structure with two schemas: `imdb_analysis_project` and `netflix_analysis_project`. The `netflix_analysis_project` schema contains a single table named `netflix`.
- Query Editor:** Titled "NETFLIX PROJECT*", contains the SQL query provided in the question. The code uses a CASE statement to categorize titles based on their rating into "Family", "Kids", or "Adult".
- Result Grid:** Displays the results of the query. The columns are `title`, `rating`, and `rating_category`. The data includes:

title	rating	rating_category
Dick Johnson Is Dead	PG-13	Family
Blood & Water	TV-MA	Adult
Ganglands	TV-MA	Adult
Jalibirds New Orleans	TV-MA	Adult
Kota Factory	TV-MA	Adult
Midnight Mass	TV-MA	Adult
- Output:** Shows the execution history with the following log entries:

#	Time	Action	Message	Duration / Fetch
20	20:59:27	SELECT t.show_id, t.title, t.director, (SELECT COUNT(*) FROM netflix AS nt WHERE nt.dir... Error Code: 1146. Table 'netflix_analysis_project.netflixas' doesn't exist		0.000 sec
21	20:59:40	SELECT t.show_id, t.title, t.director, (SELECT COUNT(*) FROM netflix AS nt WHERE nt.dir... 100 row(s) returned		0.031 sec / 0.000 sec
22	21:00:47	SELECT country, COUNT(*) AS total_titles FROM netflix WHERE country IS NOT NULL GROUP BY cou... 22 row(s) returned		0.000 sec / 0.000 sec
23	21:01:56	SELECT title, rating, CASE WHEN rating IN ('G', 'PG', 'PG-13') THEN 'Family' WHEN ra... 100 row(s) returned		0.000 sec / 0.000 sec

11. Write a query to add a new column title_length to the titles table that calculates the length of each title.

Ans:- alter table netflix add column title_length int;
set sql_safe_update = 0;

Update netflix

```
set title_length = length(title);
```

```
select title, title_length from netflix;
```

The screenshot shows the MySQL Workbench interface with the following details:

- Schemas:** imdb_analysis_project, netflix_analysis_project (selected).
- Tables:** netflix (selected).
 - Columns:** show_id, type, title, director, cast, country, date_added, release_year, rating, duration, listed_in, description.
 - Indexes:** None.
 - Foreign Keys:** None.
 - Triggers:** None.
- Script Editor:** Contains the following SQL code:

```
-- Hrushikesh Shinde --
create database Netflix_Analysis_Project;
use Netflix_Analysis_Project;

-- Q11.query to add a new column title_length to the titles table that calculates the length of each title.
alter table netflix add column title_length int;
set sql_safe_update = 0;

Update netflix
set title_length = length(title);

select title, title_length from netflix;
```
- Result Grid:** Shows the output of the last query:

title	title_length
Dick Johnson Is Dead	NULL
Blood & Water	NULL
Ganglands	NULL
Jailbirds New Orleans	NULL
Kota Factory	NULL
Midnight Mass	NULL
- Object Info:** Shows the table structure for netflix.
- Output:** Shows the log of actions taken:

#	Time	Action	Message	Duration / Fetch
23	21:01:56	SELECT title, rating, CASE WHEN rating IN ('G', 'PG', 'PG-13') THEN 'Family' ELSE 'Not Family' END AS category FROM netflix	WHEN rating IN ('G', 'PG', 'PG-13') THEN 'Family' ELSE 'Not Family' END AS category FROM netflix	0.000 sec / 0.000 sec
24	21:03:00	alter table netflix add column title_length int	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.031 sec
25	21:03:00	set sql_safe_update = 0	Error Code: 1193. Unknown system variable 'sql_safe_update'	0.016 sec
26	21:03:06	select title, title_length from netflix LIMIT 0, 1000	100 row(s) returned	0.000 sec / 0.000 sec
- System Bar:** Includes a search bar, taskbar icons (File Explorer, Task View, Start, Taskbar Icons), system tray icons (Battery, Network, Volume, etc.), and system status (27°C, Partly cloudy, ENG, 21:03, 13-10-2024).

12. Write a query using an advanced function to find the title with the longest duration in minutes.

Ans:-

```
SELECT Title, duration
```

```
From netflix
```

```
WHERE type = 'Movie'
```

```
ORDER BY CAST(substring(duration, 1, LENGTH(duration) - 4) AS UNSIGNED) DESC LIMIT 1;
```

The screenshot shows the MySQL Workbench interface with the following details:

- Navigator:** Shows the schema `netflix_analysis_project` with a table `netflix`. The table has columns: show_id, type, title, director, cast, country, date_added, release_year, rating, duration, listed_in, description.
- Query Editor:** A query titled "NETFLIX PROJECT" is displayed:

```
-- Hrushikesh Shinde --
create database Netflix_Analysis_Project;
use Netflix_Analysis_Project;
-- Q12.query using an advanced function to find the title with the longest duration in minutes
SELECT Title, duration
FROM netflix
WHERE type = 'Movie'
ORDER BY CAST(substring(duration, 1, LENGTH(duration) - 4) AS UNSIGNED) DESC LIMIT 1;
```
- Result Grid:** The result of the query is shown in a grid:

Title	duration
Jeans	166 min
- Output:** The output pane shows the log of actions taken:

#	Time	Action	Message	Duration / Fetch
24	21:03:00	alter table netflix add column title_length int	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.031 sec
25	21:03:00	set sql_safe_update = 0	Error Code: 1193. Unknown system variable 'sql_safe_update'	0.016 sec
26	21:03:06	select title, title_length from netflix LIMIT 0, 1000	100 row(s) returned	0.000 sec / 0.000 sec
27	21:06:12	SELECT Title, duration FROM netflix WHERE type = 'Movie' ORDER BY CAST(substring(duration, 1, LENGTH(duration) - 4) AS UNSIGNED) DESC LIMIT 1	1 row(s) returned	0.015 sec / 0.000 sec
- System Bar:** Includes a search bar, taskbar icons (File Explorer, Task View, Start, Taskbar settings), and system status (Weather: 27°C Partly cloudy, Battery: 2106, Language: ENG, Date: 13-10-2024).

13. Create a view named RecentTitles that includes titles added in the last 30 days.

Ans:- CREATE VIEW Recenttitles AS

```
SELECT show_id, title, date_added  
FROM netflix  
WHERE STR_TO_DATE(date_added, '%M %d, %Y') >= CURDATE() - INTERVAL 30 DAY;  
SELECT * FROM Recenttitles;
```

The screenshot shows the MySQL Workbench interface with the following details:

- Navigator:** Shows the schema structure for the `netflix_analysis_project` database, including the `netflix` table with columns: show_id, type, title, director, cast, country, date_added, release_year, rating, duration, listed_in, and description.
- Query Editor:** Displays the SQL code for creating the `Recenttitles` view:

```
1 -- Hrushikesh Shinde --  
2 • create database Netflix_Analysis_Project;  
3 • use Netflix_Analysis_Project;  
4  
5 -- Q13.view named RecentTitles that includes titles added in the last 30 days.  
6 • CREATE VIEW Recenttitles AS  
7     SELECT show_id, title, date_added  
8     FROM netflix  
9     WHERE STR_TO_DATE(date_added, '%M %d, %Y') >= CURDATE() - INTERVAL 30 DAY;  
10 • SELECT * FROM Recenttitles;
```
- Result Grid:** Shows the structure of the `Recenttitles` view with columns: show_id, title, and date_added.
- Output:** Shows the log of actions taken:

#	Time	Action	Message	Duration / Fetch
28	21:07:08	create database Netflix_Analysis_Project	Error Code: 1007. Can't create database 'netflix_analysis_project'; database exists	0.016 sec
29	21:07:24	SELECT * FROM Recenttitles LIMIT 0, 1000	Error Code: 1146. Table 'netflix_analysis_project.recenttitles' doesn't exist	0.000 sec
30	21:07:29	CREATE VIEW Recenttitles AS SELECT show_id, title, date_added FROM netflix WHERE STR_TO_DA...	0 row(s) affected	0.000 sec
31	21:07:29	SELECT * FROM Recenttitles LIMIT 0, 1000	0 row(s) returned	0.000 sec / 0.000 sec

14. Write a query to find the country with the highest average rating for titles. Use subqueries and aggregate functions to achieve this.

Ans:- SELECT country, AVG(rating_value) AS avg_rating

FROM (

 SELECT country,

 CASE

 WHEN rating = 'G' THEN 1

 WHEN rating = 'PG' THEN 2

 WHEN rating = 'PG-13' THEN 3

 WHEN rating = 'R' THEN 4

 ELSE 5

 END AS rating_value

 FROM netflix

 WHERE country IS NOT NULL

) AS ratings

GROUP BY country

ORDER BY avg_rating DESC

LIMIT 1;

The screenshot shows the MySQL Workbench interface. The query editor window contains the SQL code for finding the country with the highest average rating. The results grid shows one row of data: France, United States with an average rating of 5.0000.

```
-- Hrushikesh Shinde --
create database Netflix_Analysis_Project;
use Netflix_Analysis_Project;

-- Q14.query to find the country with the highest average rating for titles.
-- Use subqueries and aggregate functions to achieve this.

SELECT country, AVG(rating_value) AS avg_rating
FROM (
    SELECT country,
        CASE
            WHEN rating = 'G' THEN 1
            WHEN rating = 'PG' THEN 2
            WHEN rating = 'PG-13' THEN 3
            WHEN rating = 'R' THEN 4
            ELSE 5
        END AS rating_value
    FROM netflix
    WHERE country IS NOT NULL
) AS ratings
GROUP BY country
ORDER BY avg_rating DESC LIMIT 1;
```

country	avg_rating
France, United States	5.0000

15. Write a query to find pairs of titles from the same country where one title has a higher rating than the other. Display columns for show_id_1, title_1, rating_1, show_id_2, title_2, and rating_2.

Ans:- SELECT t1.show_id AS show_id_1, t1.title AS title_1, t1.rating AS rating_1, t2.show_id AS show_id_2, t2.title AS title_2, t2.rating AS rating_2

```
FROM netflix t1
JOIN netflix t2
ON t1.country = t2.country
AND t1.show_id <> t2.show_id
WHERE t1.rating > t2.rating;
```

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator: NETFLIX PROJECT*

SCHEMAS

- imdb_analysis_project
- netflix_analysis_project
 - Tables
 - netflix
 - Columns
 - show_id
 - type
 - title
 - director
 - cast
 - country
 - date_added
 - release_year
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 - duration
 - listed_in
 - description
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Administration Schemas

Information

Table: netflix

Columns:

- show_id text
- type text
- title text
- director text
- cast text
- country text
- date_added text

Object Info Session Result 16 x

NETFLIX PROJECT*

```
1 -- Hrushikesh Shinde --
2 • create database Netflix_Analysis_Project;
3 • use Netflix_Analysis_Project;
4
5 -- Q15.query to find pairs of titles from the same country where one title has a higher rating than the other.
6 -- Display columns for show_id_1, title_1, rating_1, show_id_2, title_2, and rating_2.
7 • SELECT t1.show_id AS show_id_1, t1.title AS title_1, t1.rating AS rating_1,
8         t2.show_id AS show_id_2, t2.title AS title_2, t2.rating AS rating_2
9     FROM netflix t1
10    JOIN netflix t2
11      ON t1.country = t2.country
12      AND t1.show_id <> t2.show_id
13      WHERE t1.rating > t2.rating;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

show_id_1	title_1	rating_1	show_id_2	title_2	rating_2
s98	Kid Cosmic	TV-Y7	s1	Dick Johnson Is Dead	PG-13
s97	If I Leave Here Tomorrow: A Film About Lynyrd ...	TV-MA	s1	Dick Johnson Is Dead	PG-13
s83	Lucifer	TV-14	s1	Dick Johnson Is Dead	PG-13
s82	Kate	R	s1	Dick Johnson Is Dead	PG-13
s68	Saved by the Bell	TV-PG	s1	Dick Johnson Is Dead	PG-13
s56	Nailed It	TV-PG	s1	Dick Johnson Is Dead	PG-13
s49	Training Day	R	s1	Dick Johnson Is Dead	PG-13
s41	He-Man and the Masters of the Universe	TV-Y7	s1	Dick Johnson Is Dead	PG-13
s16	Dear White People	TV-MA	s1	Dick Johnson Is Dead	PG-13
s101	Tobot Galaxy Detectives	TV-Y7	s3	Ganglands	TV-MA
s90	Mighty Raju	TV-Y7	s3	Ganglands	TV-MA
s88	Titipo Titipo	TV-Y	s3	Ganglands	TV-MA
s86	Pokémon Master Journeys: The Series	TV-Y7	s3	Ganglands	TV-MA
s81	Fire Drake the Silver Dragon	TV-Y7	s3	Ganglands	TV-MA

Result 16 x

27°C Partly cloudy 21:10 ENG 13-10-2024

Thank you