TASKS:

1. Tasks: Provide the SQL code and the output for this query criterion.

A. I need the titles and the length of films that start with the letters "S" and T and have a replacement rate of 15.99 to 20.99. I need only the first 20 rows starting with the films with the longest running time.

ANSWER:
SELECT title, length FROM film
WHERE (title LIKE 'S%' OR title LIKE 'T%')
AND replacement_cost BETWEEN 15.99 AND 20.99
ORDER BY length DESC LIMIT 20

OUTPUT:

	title character varying (255)	length smallint
1	Smoochy Control	184
2	Sorority Queen	184
3	Saturn Name	182
4	Something Duck	180
5	Sweden Shining	176
6	Splash Gump	175
7	Shrek License	154
8	Tourist Pelican	152
9	Sister Freddy	152
10	Straight Hours	151
11	Telegraph Voyage	148
12	Steel Santa	143
13	Steers Armageddon	140
14	Spirited Casualties	138
15	Town Ark	136
16	Sunrise League	135
17	Splendor Patton	134
18	Sky Miracle	132
19	Seven Swarm	127
20	Sinners Atlantis	126

B. I need the IDs and the titles of films with a running time of fewer than 100 minutes and replacement costs greater than 15.99. I only need [SEP] the films with ratings G, PG and PG-13. The output should be ordered [SEP] by title in ascending order.

ANSWER:
SELECT film_id, title FROM film
WHERE (rating IN ('G', 'PG', 'PG-13')) AND length < 100
AND replacement_cost > 15.99
ORDER BY title LIMIT 20

OUTPUT:

	film_id [PK] integer	title character varying (255)
1	1	Academy Dinosaur
2	7	Airplane Sierra
3	18	Alter Victory
4	28	Anthem Luke
5	55	Barbarella Streetcar
6	57	Basic Easy
7	63	Bedazzled Married
8	67	Berets Agent
9	83	Blues Instinct
10	85	Bonnie Holocaust
11	89	Borrowers Bedazzled
12	91	Bound Cheaper
13	97	Bride Intrigue
14	108	Butch Panther
15	109	Butterfly Chocolat
16	123	Casablanca Super
17	134	Champion Flatliners
18	137	Charade Duffel
19	140	Cheaper Clyde
20	144	Chinatown Gladiator

2. Why would these SQL syntaxes fail?

A. SELECT * FROM film WHERE rating = G

ANSWER:

The SQL syntax would fail because G is not enclosed in quotes or double quotes, which indicates that it's a string literal. Without quotes or double quotes, the database system will interpret G as a column name or a keyword, which would result in a syntax error. To fix the syntax, the correct SQL statement would be:
SELECT * FROM film WHERE rating = 'G'
This statement encloses the value G in single quotes, indicating that it's a string literal that should be compared to the rating column of the film table.

B. SELECT customer_id FROM film

ANSWER:

The SQL syntax would fail because the customer_id column is not present in the film table. The customer_id column is typically present in a table that stores information about customers, such as the customer table. If the goal is to retrieve the customer_id column from the customer table, the correct SQL statement would be:
SELECT customer_id FROM customer
This statement retrieves the customer_id column from the customer table.

3. Answer the following business case scenario/questions. ⌕SEP Provide the SQL syntax and output.

A. There was a discrepancy with a financial report wherein the payment transactions for a customer with customer ID #514 were missing. Fortunately, the transactions are still in the database, and your task is to query the data and provide the payment transactions of customer #514

ANSWER:
SELECT * FROM payment
WHERE customer_id = 514

OUTPUT:

	payment_id [PK] integer	customer_id smallint	staff_id smallint	rental_id integer	amount numeric (5,2)	payment_date timestamp without time zone
1	18161	514	2	1692	4.99	2007-02-16 10:58:45.996577
2	18162	514	1	2002	3.99	2007-02-17 10:08:24.996577
3	18163	514	2	2362	0.99	2007-02-18 11:59:41.996577
4	18164	514	1	2789	0.99	2007-02-19 17:16:47.996577
5	18165	514	2	3084	2.99	2007-02-20 14:03:50.996577
6	18166	514	1	3385	0.99	2007-02-21 12:45:14.996577
7	21857	514	1	11675	1.99	2007-03-17 04:26:20.996577
8	21858	514	2	12067	4.99	2007-03-17 20:05:13.996577
9	21859	514	1	12293	4.99	2007-03-18 03:42:02.996577
10	21860	514	1	12302	4.99	2007-03-18 04:10:05.996577
11	21861	514	2	12578	0.99	2007-03-18 14:15:37.996577
12	21862	514	1	12752	2.99	2007-03-18 21:02:02.996577
13	21863	514	2	13344	3.99	2007-03-19 18:51:10.996577
14	21864	514	1	14052	0.99	2007-03-20 20:40:12.996577
15	21865	514	1	14386	1.99	2007-03-21 08:35:00.996577
16	21866	514	1	15451	2.99	2007-03-22 23:24:53.996577
17	21867	514	1	15776	5.99	2007-03-23 11:54:27.996577
18	27947	514	2	3668	5.99	2007-04-06 07:05:14.996577
19	27948	514	2	3860	2.99	2007-04-06 15:48:50.996577
20	27949	514	1	7791	4.99	2007-04-28 05:51:17.996577
21	27950	514	1	9038	3.99	2007-04-30 04:52:01.996577

B. As part of the regular media regulations audit, you need to provide your regulations officer with the amount of R rated films that the DVD rental store has. How many R rated movies does the DVD rental store have?

ANSWER:
SELECT COUNT(*) FROM film
WHERE rating = 'R'

OUTPUT:

	count bigint 🔒
1	195