Q1 -
All Products
Task
Write a query to output the Products table.
Table name: Products

product_id	product_name	price	category
1	Laptop	999.99	Electronics
2	Desk Chair	149.99	Furniture
3	Smartphone	599.99	Electronics
4	Notebook	2.99	Stationery
5	Headphones	89.99	Electronics
6	Coffee Maker	49.99	Appliances
7	Standing Desk	249.99	Furniture
8	Tablet	399.99	Electronics
9	Mouse	19.99	Electronics
10	Water Bottle	12.99	Stationery

```
--your code goes here
select * from products;
```

Q2 -
High Price of Products
Task
Write a query to find all product_name and category that have a price greater than 100.00 from the **Products** table.
Table name: **Products**

product_id	product_name	price	category
1	Laptop	999.99	Electronics
2	Desk Chair	149.99	Furniture
3	Smartphone	599.99	Electronics
4	Notebook	2.99	Stationery
5	Headphones	89.99	Electronics
6	Coffee Maker	49.99	Appliances
7	Standing Desk	249.99	Furniture
8	Tablet	399.99	Electronics
9	Mouse	19.99	Electronics
10	Water Bottle	12.99	Stationery

```
-- your code goes here

select product_name, category from products
where price > 100.00
```

Q3 -
Average Salary
Task

- Write a query to calculate the average salary across all companies combined. Rename the column as avg_salary.

Table name: Works

employee_id	company_name	salary
1	TechCorp	75000.00
2	InnovateLtd	62000.50
3	HealthPlus	54000.75
4	EduWorks	48000.00
5	GreenTech	68000.00
6	TechCorp	80000.00
7	InnovateLtd	66000.20
8	HealthPlus	50000.10
9	EduWorks	51000.00
10	GreenTech	72000.00

```
-- your code goes here
select avg(salary) as avg_salary
from works ;
```

Q4 -
Locate People
Task

- Write a query to retrieve the department_name and location of people who live in location that starts with 'S'.

Table name: **departments**

department_id	department_name	location
1	Human Resources	New York
2	Research and Development	San Francisco
3	Sales	Los Angeles
4	Marketing	New York
5	Customer Support	Boston
6	Finance	Austin
7	IT Support	Seattle
8	Product Management	San Francisco
9	Quality Assurance	Los Angeles
10	Legal	Boston

```
-- your code goes here
select department_name, location from departments
where location like 'S%';
```

Q5 -
Distinct Companies
Task
Write a query to select all the distinct companies (company_name) in the Works table.
Table name: **Works**

employee_id	company_name	salary
1	TechCorp	75000.00
2	InnovateLtd	62000.50
3	HealthPlus	54000.75
4	EduWorks	48000.00
5	GreenTech	68000.00
6	TechCorp	80000.00
7	InnovateLtd	66000.20
8	HealthPlus	50000.10
9	EduWorks	51000.00
10	GreenTech	72000.00

```
-- your code goes here
select distinct company_name
from works
```

Q6 -
Fiction Collection Size
Task
Write a query to find the total count of books whose genre is **Fiction.**
Note: Output column name should be **fiction_count.**
Table name: **Books**

id	title	author	genre	price	published_year
1	The Great Gatsby	F. Scott Fitzgerald	Fiction	10.99	1925
2	1984	George Orwell	Dystopian	15.99	1949
3	To Kill a Mockingbird	Harper Lee	Fiction	12.99	1960
4	The Catcher in the Rye	J.D. Salinger	Fiction	14.99	1951
5	Brave New World	Aldous Huxley	Dystopian	13.99	1932
6	The Hobbit	J.R.R. Tolkien	Fantasy	9.99	1937
7	Moby Dick	Herman Melville	Fiction	18.50	1851
8	War and Peace	Leo Tolstoy	Historical	20.00	1869
9	The Picture of Dorian Gray	Oscar Wilde	Fiction	11.50	1890
10	The Alchemist	Paulo Coelho	Fiction	16.00	1988
11	Fahrenheit 451	Ray Bradbury	Dystopian	12.50	1953

id	title	author	genre	price	published_year
12	The Chronicles of Narnia	C.S. Lewis	Fantasy	14.00	1950
13	The Handmaid's Tale	Margaret Atwood	Dystopian	15.50	1985
14	A Tale of Two Cities	Charles Dickens	Historical	13.00	1859
15	Little Women	Louisa May Alcott	Fiction	9.50	1868

```
-- your code goes here

select count(*) as fiction_count
from books
where genre = 'Fiction' ;
```

Q7 -
List of Movies with Ratings
Task
Write a query to select only the movie names where the ratings are greater than 7 but less than 9.
Table: **Cinema**

Movie_id	Movie_name	Description	Rating
1	War	great 3D	8.9
2	Science	fiction	8.5
3	Irish	boring	6.2
4	Ice Song	Fantasy	8.6
5	House Card	Interesting	9.1
6	The Escape	Thriller	7.8
7	Solar Flare	Sci-Fi	8.3
8	The Joker	Drama	9.0
9	Lost Dreams	Mystery	7.5
10	Galaxy War	Action	8.7

```
-- your code goes here
select movie_name
from  cinema
where rating > 7 and rating < 9;
```

Q8 -
Handling NULL Values
Task
Write a query to retrieve book_id, title, author and published_year of the books which have **NULL** rating for their books.
Table name: Library

book_id	title	author	published_year	rating
1	The Great Gatsby	F. Scott Fitzgerald	1925	4.2
2	To Kill a Mockingbird	Harper Lee	1960	NULL
3	1984	George Orwell	1949	4.8

book_id	title	author	published_year	rating
4	The Catcher in the Rye	J.D. Salinger	1951	NULL
5	Brave New World	Aldous Huxley	1932	4.3

```
-- your code goes here
select book_id, title, author, published_year
from library
where rating is null;
```

Q9 -
Salary of Employees
Task
Create a query to retrieve the employee_name, company, and salary for employees in the full-time category, ordered by salary in **descending** order
Table name: Employees

employee_id	employee_name	company	category	department	salary
1	John Smith	TechCorp	Full-Time	Engineering	80000
2	Alice Johnson	TechCorp	Part-Time	HR	30000
3	Bob Brown	FinServ	Full-Time	Finance	90000
4	Carol White	HealthPlus	Contract	IT	75000
5	David Green	TechCorp	Full-Time	Engineering	85000
6	Emma Blue	FinServ	Part-Time	Finance	32000
7	Frank Black	HealthPlus	Full-Time	HR	60000
8	Grace Grey	TechCorp	Full-Time	Marketing	70000
9	Henry Red	FinServ	Contract	IT	95000
10	Ivy Yellow	HealthPlus	Part-Time	Marketing	28000

```
--your code goes here

select employee_name, company, salary
from employees
where category = 'Full-Time'
order by salary desc;
```

Q10 -
Department of Each Employee
Task
Write a query to group the employees by their department and display the total number of employees (as total_employees) in each department.
Table name: Employees

employee_id	employee_name	company	category	department	salary
1	John Smith	TechCorp	Full-Time	Engineering	80000
2	Alice Johnson	TechCorp	Part-Time	HR	30000
3	Bob Brown	FinServ	Full-Time	Finance	90000
4	Carol White	HealthPlus	Contract	IT	75000
5	David Green	TechCorp	Full-Time	Engineering	85000

employee_id	employee_name	company	category	department	salary
6	Emma Blue	FinServ	Part-Time	Finance	32000
7	Frank Black	HealthPlus	Full-Time	HR	60000
8	Grace Grey	TechCorp	Full-Time	Marketing	70000
9	Henry Red	FinServ	Contract	Sales	95000
10	Ivy Yellow	HealthPlus	Part-Time	Marketing	28000

```
-- your code goes here

select department, count(*) as total_employees
from employees
group by department
```

Q11 -
Article views
Task
Write a query to retrieve the author_id, author_name, and publication_name for authors whose articles got zero views. The result should be sorted by author_id in ascending order.
Return the result table sorted by id in **ascending order.**
Table name: Views

article_id	author_id	author_name	viewer_id	view_count	publication_name
101	1	John Doe	1	3	The Daily Times
102	2	Jane Smith	2	1	Global News
103	3	Emily Clark	4	0	Tech Monthly
104	4	Mark Lewis	4	2	Health Digest
105	5	Sara White	3	0	The Business Journal
106	1	John Doe	2	0	The Daily Times
107	2	Jane Smith	2	2	Global News

```
-- your code goes here
select author_id, author_name, publication_name
from views
where view_count = 0
order by author_id asc;
```

Q12 -
Player Performance Insights
Task
Write a query to find the names of the **top 3 distinct players** by highest score who have **won** matches, including their **scores.**
Expected Output Columns:

player_name	score

Table 1: **Players**

player_id	player_name	score	rank
1	Alice	1200	5
2	Bob	1500	2
3	Charlie	1300	4
4	David	1600	1

player_id	player_name	score	rank
5	Eve	1100	6

Table 2: **Matches**

match_id	player1	player2	winner	match_date
101	Alice	Bob	Bob	2024-01-15
102	Charlie	David	David	2024-01-16
103	Eve	Bob	Bob	2024-01-17
104	Alice	David	David	2024-01-18
105	Charlie	Eve	Charlie	2024-01-19

```
-- your code goes here
select distinct player_name, score
from players
order by score desc
limit 3;
```

Q13 -
Player Details
Task
Write a query to retrieve the details of the **last five matches** played, including the match ID, the names of the players who participated, the name of the winning player, and the final score of the winner.
Expected Output Columns:

match_id	player_1	player_2	winner	match_date	score

There are two tables named **Players** and **Matches.**

Players

player_id	player_name	score	rank
1	Alice	1200	5
2	Bob	1500	2
3	Charlie	1300	4
4	David	1600	1
5	Eve	1100	6
6	Frank	1450	3
7	Grace	1350	7
8	Hank	1250	9
9	Ivy	1550	8
10	jack	1400	10

Matches

match_id	player_1	player_2	winner	match_date
101	Alice	Bob	Bob	2024-01-25
102	Charlie	David	David	2024-01-06
103	Eve	Bob	Bob	2024-01-17
104	Alice	David	David	2024-01-01
105	Charlie	Eve	Charlie	2024-01-15
106	Frank	Hank	Frank	2024-01-29
107	Grace	Ivy	Ivy	2024-01-10
108	Jack	Alice	Jack	2024-01-19
109	Bob	Charlie	Bob	2024-01-13
110	David	Eve	David	2024-01-24

```
-- your code goes here
select m.match_id,     m.player_1, m.player_2, m.winner,   m.match_date,     p.score
from matches m
inner join players p on p.player_name = m.winner
order by match_date desc
limit 5;
```