SQL PRACTICE QUESTIONS BEGINNER LEVEL

1.) TABLE NAME: EMPLOYEE_DB

EmpID	Name	Department	Salary	HireDate
1	Alice	IT	60000	2020-01-15
2	Bob	HR	45000	2019-03-10
3	Charlie	Finance	70000	2021-07-22
4	David	IT	55000	2020-11-05
5	Emma	Sales	50000	2022-04-18
6	Frank	Finance	65000	2020-09-12
7	Grace	HR	48000	2021-02-01

<u>Level 1 – Basics</u>

- 1. Select all employee details.
- 2. Show only the Name and Salary of all employees.
- 3. Find all employees who work in the IT department.
- 4. List employees whose salary is more than 55,000.
- 5. Show employees in order of their HireDate (oldest first).

Level 2 – Clauses

- 6. Show all unique department names from the Employees table.
- 7. Find employees hired between 2020-01-01 and 2020-12-31.
- 8. Find employees whose names start with "A".
- 9. List employees who work in either Finance or HR.

10. Show the top 3 highest paid employees.

<u>Level 3 – Aggregations</u>

- 11. Count the total number of employees.
- 12. Find the average salary of employees in the IT department.
- 13. Show the total salary paid to employees in each department.
- 14. List departments where the average salary is greater than 60,000.
- 15. Find the highest salary in each department.

2.) TABLE NAME: EMPLOYEE DB

EmpID	Name	Department	Salary	HireDate
1	Alice	IT	60000	15-01-2020
2	Bob	HR	45000	10-03-2019
3	Charlie	Finance	70000	22-07-2021
4	David	IT	55000	18-04-2020
5	Emma	Sales	50000	18-04-2022
6	Frank	Finance	65000	12-09-2020
7	Grace	HR	48000	01-02-2021
8	Hannah	IT	62000	05-11-2019
9	Ian	Sales	52000	30-06-2021
10	Jack	Finance	72000	20-08-2022

- 1. Show all employees.
- 2. Show employee names and their salaries.
- 3. Show all employees from IT department.
- 4. Show employees earning more than 55,000.
- 5. Show employees hired in 2020.
- 6. List distinct departments.

- 7. Show employees hired after 2021-01-01.
- 8. Show employees whose names start with "A".
- 9. Show employees whose names end with "a".
- 10. Show employees whose salary is between 50,000 and 65,000.
- 11. Show employees from HR or Finance.
- 12. Count how many employees are in the company.
- 13. Find the average salary in the IT department.
- 14. Find the maximum salary in Finance.
- 15. Show total salary by department.
- 16. Show average salary by department, only if it's above 60,000.
- 17. Show top 3 highest paid employees.
- 18. Show employees ordered by hire date (oldest first).
- 19. Show employees ordered by department $(A \rightarrow Z)$ and salary (high \rightarrow low).
- 20. Show employees not in the Sales department.

3.) TABLE NAME: PRODUCTS_DB

product_id	product_name	category	price	stock
1	Laptop	Electronics	50000	20
2	Smartphone	Electronics	30000	50
3	Tablet	Electronics	20000	35
4	Chair	Furniture	4000	100
5	Desk	Furniture	8000	40
6	Pen	Stationery	20	500
7	Notebook	Stationery	50	300
8	Headphones	Electronics	2000	80
9	Printer	Electronics	15000	15
10	Cupboard	Furniture	12000	25

- 1. Show all products.
- 2. Show product names and prices.
- 3. Show products in Electronics category.
- 4. Show products priced above 10,000.
- 5. Show products with stock less than 30.
- 6. List distinct categories.
- 7. Show products whose price is between 2,000 and 20,000.
- 8. Show products in category Furniture or Stationery.
- 9. Count how many products are in the table.
- 10. Find the average price of all products.
- 11. Find the maximum price in Furniture.
- 12. Find the total stock of all Electronics items.
- 13. Show total stock by category.
- 14. Show average price by category.
- 15. Show categories where average price is above 10,000.
- 16. Show the top 5 most expensive products.
- 17. Show products ordered by price (low \rightarrow high).
- 18. Show products ordered by category and stock (high \rightarrow low).
- 19. Show products not in Electronics.
- 20. Show products whose name contains the word "book".

4.) TABLE NAME: STUDENTS_DB

student_id	name	age	gender	grade	enrollment_date	city
1	Amit	18	Male	A	10-06-2021	Delhi
2	Priya	20	Female	В	12-03-2020	Mumbai
3	Rahul	19	Male	C	15-01-2022	Chennai
4	Sneha	22	Female	A	01-09-2019	Delhi
5	Vikram	21	Male	В	20-07-2021	Kolkata
6	Kiran	18	Female	C	18-08-2022	Delhi
7	Arjun	23	Male	В	11-05-2018	Bangalore
8	Meena	20	Female	A	05-02-2021	Mumbai
9	Suresh	19	Male	С	25-11-2020	Hyderabad
10	Divya	22	Female	В	01-04-2022	Chennai

- 1. Show students older than 20.
- 2. Show students younger than 20.
- 3. Show students exactly 18 years old.
- 4. Show students not equal to age 19.
- 5. Show students with grade = 'A'.
- 6. Show students with grade != 'C'.
- 7. Show male students from Delhi.
- 8. Show female students from Mumbai.
- 9. Show students whose age is > 18 AND grade = 'B'.
- 10. Show students whose grade = 'A' OR age < 20.
- 11. Show students not from Chennai.
- 12. Show students with age BETWEEN 18 AND 20.
- 13. Show students enrolled BETWEEN '2020-01-01' AND '2021-12-31'.
- 14. Show students from cities IN ('Delhi', 'Mumbai').

- 15. Show students from cities NOT IN ('Hyderabad', 'Kolkata').
- 16. Show students whose names start with 'A'.
- 17. Show students whose names end with 'a'.
- 18. Show students whose names contain 'ri'.
- 19. Show students whose second letter is 'r'.
- 20. Show students whose age is \geq 22.
- 21. Show students whose enrollment_date is after '2021-01-01'.
- 22. Show students whose enrollment_date is before '2020-01-01'.
- 23. Show students with grade IN ('B', 'C').
- 24. Show students with grade NOT IN ('A').
- 25. Show students from Delhi OR Bangalore.
- 26. Show students with age > 20 AND city = 'Chennai'.
- 27. Show students whose name LIKE 'S%'.
- 28. Show students whose name LIKE '%h'.
- 29. Show students whose name LIKE ' i%'.
- 30. Show students not in Delhi AND not in Mumbai.
- 31. Show students from Delhi AND with grade = 'A'.
- 32. Show students aged < 20 OR enrolled after '2021-01-01'.
- 33. Show female students whose name starts with 'S'.
- 34. Show male students NOT from Bangalore.
- 35. Show students whose grade = 'B' AND age BETWEEN 20 AND 23.

- 36. Show students whose enrollment_date is NOT BETWEEN '2020-01-01' AND '2021-12-31'.
- 37. Show students whose city IN ('Delhi', 'Mumbai') AND age > 18.
- 38. Show students whose city NOT IN ('Chennai', 'Kolkata') OR grade = 'C'.
- 39. Show students whose name LIKE '%n%' AND age < 22.
- 40. Show students whose name does NOT start with 'A' AND grade != 'C'.

5.) TABLE NAME: ORDERS_DB

order_id	customer_name	product	quantity	price	order_date	status
1	Ravi	Laptop	1	50000	15-03-2021	Delivered
2	Sita	Phone	2	30000	20-07-2020	Pending
3	Aman	Tablet	1	20000	10-01-2022	Delivered
4	Geeta	Chair	4	4000	01-12-2019	Cancelled
5	Manoj	Desk	2	8000	14-09-2021	Delivered
6	Anita	Laptop	1	55000	20-04-2022	Pending
7	Sunil	Printer	1	15000	30-05-2020	Delivered
8	Neha	Phone	3	28000	05-11-2021	Delivered
9	Arun	Headphones	5	2000	17-06-2022	Pending
10	Kavita	Cupboard	1	12000	25-02-2020	Cancelled

- 1. Show all orders where price > 20000.
- 2. Show all orders where price < 10000.
- 3. Show orders with quantity = 1.
- 4. Show orders with quantity != 1.
- 5. Show orders where status = 'Delivered'.
- 6. Show orders where status != 'Cancelled'.
- 7. Show orders with price \geq 30000 AND status = 'Pending'.
- 8. Show orders with price < 15000 OR status = 'Cancelled'.

- 9. Show orders NOT with status = 'Pending'.
- 10. Show orders placed BETWEEN '2021-01-01' AND '2021-12-31'.
- 11. Show orders placed BETWEEN '2020-01-01' AND '2020-12-31'.
- 12. Show orders where product IN ('Laptop', 'Phone').
- 13. Show orders where product NOT IN ('Desk', 'Chair').
- 14. Show orders where customer_name starts with 'A'.
- 15. Show orders where customer name ends with 'a'.
- 16. Show orders where customer_name contains 'ni'.
- 17. Show orders where product LIKE 'C%'.
- 18. Show orders where product LIKE '%p'.
- 19. Show orders where product LIKE '_a%'.
- 20. Show orders where status IN ('Delivered', 'Pending').
- 21. Show orders where price BETWEEN 10000 AND 30000.
- 22. Show orders where quantity BETWEEN 2 AND 4.
- 23. Show orders with order_date before '2020-06-01'.
- 24. Show orders with order_date after '2022-01-01'.
- 25. Show orders where product = 'Laptop' AND price > 50000.
- 26. Show orders where customer_name NOT LIKE 'A%'.
- 27. Show orders where product NOT LIKE '%e'.
- 28. Show orders where status = 'Cancelled' OR price > 40000.
- 29. Show orders where NOT (status = 'Delivered').
- 30. Show orders where price < 10000 AND quantity > 2.

- 31. Show orders with status = 'Delivered' AND price > 30000.
- 32. Show orders with quantity > 2 OR price < 5000.
- 33. Show orders with product LIKE 'P%' AND status != 'Cancelled'.
- 34. Show orders where customer_name NOT IN ('Ravi','Sita') AND price > 20000.
- 35. Show orders with product IN ('Laptop', 'Tablet') AND quantity = 1.
- 36. Show orders where price BETWEEN 15000 AND 50000 AND status = 'Pending'.
- 37. Show orders where order_date NOT BETWEEN '2021-01-01' AND '2022-12-31'.
- 38. Show orders where customer_name LIKE '%n%' AND product != 'Printer'.
- 39. Show orders where quantity >= 3 AND status NOT IN ('Cancelled','Pending').
- 40. Show orders where product NOT LIKE '%p' AND price <= 15000.

Note: More practice questions related to SQL will be uploaded soon.