Client_No	Name	City	State	Baldue	SP	SOD
C001	Pooja	Nashik	Maharashtra	4000	500	3\8\2013
C002	Ananya	Banglore	Karanataka	6000	800	6\5\2009
C0003	Anushka	Hydrabad	Aandhra	8000	200	27\8\2007
C004	Atharva	Mumbai	Maharashtra	1000	100	3\3\2014
C005	Ajunkya	Pune	Maharashtra	6000	500	3\8\2014

1. List names of client having ‘o’ as second letter
2. List the client who leaves in city starts witn N.
3. List the clients lives in Banglore or Nashik.
4. List the client who placed order in August month.
5. Calculate new selling price as original S.P. * 100 and rename it as ‘Newprice’.
6. List the name of Client not from ‘Maharashtra’
7. Count total no. of orders.
8. Calculate average price of all products.
9. Calculate Maximum & Minimum S.P. and rename it as ‘Max_price’ & ‘Min_Price’.
10. Count no. of clients whose baldue > 2000

Q2. Create table Students(student_id, first_name , last_name , email , age , course_id , admission_date)

CREATE TABLE Courses (course_id , course_name);

Apply following constraints on it

Constraint Type	Example Used	Description
PRIMARY KEY	student_id	Ensures unique, non-null student IDs
FOREIGN KEY	course_id	Ensures valid course reference
UNIQUE	email	Prevents duplicate emails
CHECK	age >= 18	Ensures minimum age
NOT NULL	first_name	Ensures name is not null
DEFAULT	admission_date	Sets default date if not provided

Q3. Create table World as follows.

Country	continent	area	population	gdp
Afghanistan	Asia	652230	25500100	20343000000
Albania	Europe	28748	2831741	12960000000
Algeria	Africa	2381741	37100000	188681000000
Andorra	Europe	468	78115	3712000000
Angola	Africa	1246700	20609294	100990000000

1. Select population of County Angola.
2. Select Population of Continent 'Africa'
3. Show the name and the population for 'Algeria', 'Afganistan'
4. show the country and the area for countries with an area between 200,000 and 250,000.
5. Find the continent that start with Y
6. Find the countries that contain the letter g
7. Find the countries that have exactly four characters.
8. Show the total population of the world.
9. List all the continents - just once each.
10. Give the total GDP of Africa

Q4. Create Products table as Below

sale_id	product_id	quantity_sold	sale_date	total_price
1	101	5	2024-01-01	2500.00
2	102	3	2024-01-02	900.00
3	103	2	2024-01-02	60.00
4	104	4	2024-01-03	80.00
5	105	6	2024-01-03	90.00

.

1. Retrieve the product_name and unit_price from the Products table.
2. Filter the Sales table to show only sales with a total_price greater than $100.
3. Retrieve the sale_id and total_price from the Sales table for sales made on January 3, 2024.
4. Calculate the total quantity_sold from the Sales table.
5. Retrieve the product_name and unit_price from the Products table, ordering the results by unit_price in descending order.
6. Calculate the average total_price of sales in the Sales table.
7. Retrieve the product_name and category from the Products table, ordering the results by category in ascending order.
8. Calculate the total quantity_sold of products in the 'Electronics' category.
9. Retrieve the product_name and total_price from the Sales table, calculating the total_price as quantity_sold multiplied by unit_price.
10. Count the number of sales made in each month.

Q5. Create Products table as Below

sale_id	product_id	quantity_sold	sale_date	total_price
1	101	5	2024-01-01	2500.00
2	102	3	2024-01-02	900.00
3	103	2	2024-01-02	60.00
4	104	4	2024-01-03	80.00
5	105	6	2024-01-03	90.00

1. Retrieve all columns from the Sales table
2. Calculate the total revenue generated from all sales in the Sales table.
3. Calculate the average unit_price of products in the Products table.
4. Retrieve the sale_id, product_id, and total_price from the Sales table for sales with a quantity_sold greater than 4.
5. Retrieve the sale_id and sale_date from the Sales table, formatting the sale_date as 'YYYY-MM-DD'.
6. Find the Products Not Sold from Products table
7. Find the product category with the highest average unit price.
8. Retrieve Sales Details for Products with 'Smart' in Their Name
9. Retrieve the product name and total sales revenue for each product.
10. List all sales along with the corresponding product names.

Q6. Create Products table as Below

sale_id	product_id	quantity_sold	sale_date	total_price
1	101	5	2024-01-01	2500.00
2	102	3	2024-01-02	900.00
3	103	2	2024-01-02	60.00
4	104	4	2024-01-03	80.00
5	105	6	2024-01-03	90.00

1. Retrieve all data from the Sales table
2. Retrieve product_name and unit_price from the Products table with the Highest Unit Price
3. Count Sales Per Day from the Sales table
4. Retrieve the total_price of all sales, rounding the values to two decimal places
5. Retrieve the product_name and unit_price from the Products table, filtering the unit_price to show only values between $20 and $600
6. Identify the Most Frequently Sold Product from Sales table
7. Identify products with total sales exceeding 30.
8. Determine the average quantity sold for products with a unit price greater than $100.
9. Calculate the number of days between the current date and the sale date for each sale.
10. Identify sales where the quantity sold is greater than the average quantity sold

Q7. Create below Table

student_id	first_name	last_name	age	grade	major
1	'John'	Doe	20	A	Computer Science'
2	Jane	Smith	21	B	Mathematics
3	Alex	Johnson	22	A	Physics
4	Emily	Davis	23	C	Biology
5	David	Duck	21	B	Mathematics
6	Don	Dev	22	A	Mathematics

1. Create above table Student display the table
2. Change the name of student Jane to Jenne.
3. Find Students with a Specific Grade A
4. Count the Number of Students in Each Major
5. Order Students by Age in Ascending Order
6. Find the Oldest Student /Find the youngest Student
7. Update a Student's Major of student_id-2
8. Delete a Student Record of id=6;
9. Count the Number of Students in each Major where grade=”a”
10. Count the Number of Students in Each Grade having count greater than 2

Q8. . INSERT INTO Employee (employee_id, first_name, last_name, department, salary, hire_date, position)

employee_id	, first_name	last_name	department	salary	hire_date	position
1	'John'	Doe	IT	60000	2021-05-15	Software Engineer'
2	Jane	Smith	HR	55000	2020-03-10	HR specialist
3	Alex	Johnson	IT	70000	20199-09-22	Devops engg
4	Emily	Davis	Finance	80000	2021-02-18	Analyst
5	David	Duck	IT	40000	2020-06-05	Software Engineer'
6	Don	Dev	Finance	90000	2019-08-03	Developer

1. Select All Data from Employee Table
2. Select Employees in a Specific Department of IT
3. Count the Number of Employees in Each Department
4. Find the Average Salary in Each Department
5. List Employees Hired After a 1 February 2021
6. Increase the salary of an Employees of IT department by 5000.
7. Find the highest salary in each department
8. Count the Number of Employees in Each Department Having More Than 1 Employee
9. Find the employee having Highest / Lowest salary.
10. Delete an Employee Record having last name=Dev

Q9.

Eid	Ename	Address	Salary	Commision
1	Amita	Pune	35000	5000
2	Neha	Pune	25000	
3	Sagar	Nasik	28000	2000
4	sneha	Mumbai	19000	
5	Shubham	Mumbai	25000	3000

PrNo	Addr
10	Mumbai
20	Pune
30	Jalgaon

1. Find different locations from where employees belong to?
2. What is maximum and minimum salary?
3. Display the content of employee table according to the ascending order of salary amount.
4. Find the name of employee who lived in Nasik or Pune city.
5. Find the name of employees who does not get commission.
6. Change the city of Amit to Nashik.
7. Find the information of employees whose name starts with ‘A’.
8. Find the count of staff from each city
9. Find city wise minimum salary.
10. Find city wise maximum salary having maximum salary greater than 26000

Q10 .

Eid	Ename	Address	Salary	Commision
1	Amita	Pune	35000	5000
2	Neha	Pune	25000	
3	Sagar	Nasik	28000	2000
4	sneha	Mumbai	19000	
5	Shubham	Mumbai	25000	3000

PrNo	Addr
10	Mumbai
20	Pune
30	Jalgaon

1. Find employees belongs to Mumbai City?
2. Find the employee having maximum salary.
3. Display the content of employee table according to the descending order of salary amount.
4. Find the name of employee who not lived in Nasik or Pune city
5. Find the information of employees whose name ends with ‘R’.
6. Find the count of staff from each city having count > =2

7. Find city wise maximum salary.
8. Find city wise maximum salary having maximum salary greater than 19000
9. Find the count of staff from Mumbai.
10. Delete the employee who is having salary greater than 30,000.

Q11.

Consider the given database Employee(emp-no,skill,pay-rate) Position(posting-no,skill) Duty-allocation(posting-no,emp-no,day,shift)

1. Find duty allocation details for emp-no 101 for the month of April 2003.
2. Find the shift details of employee „Bhushan"
3. find employees whose rate of pay is more than or equal to the rate of pay of employee „AHIRE".
4. find the names and pay rates of employee with emp-no less than 1000 whose pay-rate is more than the rate of pay of at least one employee with emp-no greatar than or equal to 1000.
5. Find the employees with the lowest pay-rate

Q12. Consider the following database. Doctor (Doctor_no, Doctor_name, Address, City). Hospital (Hospital_no, Name, Street, City). Doc_Hosp (Doctor_no, Hospital_no, Date).

1. Find the Doctors details and hospital names to which doctor have visited.
2. Find out all Doctors who have visited to Hospital in same city in which they live
3. Find to which Hospital "Dr. Joshi " has visited
4. Count no of Doctors visited to "Shree Clinic" on 1 st March 2023.
5. Find out How many Files „Dr. Joshi" has visited in „Shree Clinic".

Q13. Student Table

StudentID	StudentName	CourseID
1	Amita	101
2	Neha	102
3	Sagar	103
4	sneha	106
5	Shubham	105

Course Table

CourseID	CourseName
101	Physics
102	Chemistry
104	Biology

1. Find all types of Joins(Inner,Left,Right,Full Outer join)
2. Create different Views and Display it.

Q14. .Create Table student(Rollno,Name, Address,Marks)

1. Create different Triggers After Insertion, After Updation,After Deletion,Before Insertion.

2. Create different Views and Display it.

Q15.Unnamed PL/SQL code block: Use of Control structure and Exception handling is mandatory. Consider Tables:

1. Borrower(Roll_no, Name, DateofIssue, NameofBook, Status)
2. Fine(Roll_no,Date,Amt)

Accept Roll_no and NameofBook from user.Check the number of days (from date of issue).If days are between 15 to 30 then fine amount will be Rs 5per day.If no. of days>30, per day fine will be Rs 50 per day and for days less than 30, Rs. 5 per day.After submitting the book, status will change from I to R.If condition of fine is true, then details will be stored into fine table.Also handles the exception by named exception handler or user define exception handler.

Q16. Named PL/SQL Block: PL/SQL Stored Procedure and Stored Function.

Write a Stored Procedure namely proc_Grade for the categorization of student. If marks scored by students in examination is <=1500 and marks>=990 then student will be placed in distinction category if marks scored are between 989 and 900 category is first class, if marks 899 and 825 category is Higher Second Class.Write a PL/SQL block to use procedure created with above requirement. Stud_Marks(Roll,name, total_marks) Result(Roll,Name, Class)

Q17 .Cursors: Write a PL/SQL block of code using parameterized Cursor that will merge the data available in the newly created table N_RollCall with the data available in the table O_RollCall. If the data in the first table already exist in the second table then that data should be skipped.

Q18. .Create table Student(Rollno,Name) , Perform the JDBC Connectivity.(Display ,Insert , Delete)

Q19 .MongoDB:

employee_id	, first_name	last_name	department	salary	hire_date	position
1	'John'	Doe	IT	60000	2021-05-15	Software Engineer'
2	Jane	Smith	HR	55000	2020-03-10	HR specialist
3	Alex	Johnson	IT	70000	20199-09-22	Devops engg
4	Emily	Davis	Finance	80000	2021-02-18	Analyst
5	David	Duck	IT	40000	2020-06-05	Software Engineer'
6	Don	Dev	Finance	90000	2019-08-03	Developer

1. Find All Employees.
2. Find Employees in a It department
3. Find Employees in Finance department with salry greater than 85000
4. Count the Number of Employees in Each Department
5. Calculate the Average Salary in Each Department
6. Find Employees Hired After a Certain Date
7. Update the Salary of All Employees in the IT Department by Adding 50000
8. Delete an Employee Record by `employee_id=6`
9. Find the Highest Salary in Each Department
10. Count the Number of Employees in Each Department with More Than 1 Employee

Q20 .

student_id	first_name	last_name	age	grade	major
1	'John'	Doe	20	A	Computer Science'
2	Jane	Smith	21	B	Mathematics
3	Alex	Johnson	22	A	Physics
4	Emily	Davis	23	C	Biology
5	David	Duck	21	B	Mathematics
6	Don	Dev	22	A	Mathematics

Mongodb

1. Find All Students
2. Find Students in a Specific Major Computer Science.
3. Count the Number of Students in Each Major
4. Find Students with a Specific Grade A
5. Count the Number of Students in Each Grade Having More Than 2 Students
6. List Students Ordered by Age
7. Update a Student's Major of student Emily
8. Find the Oldest Student
9. Find the eldest Student
10. Delete a Student Record by student_id=6

Q21. MongoDB

emp_id	emp_name	dept_name	salary	gender
1	Anuja	Comp	20000	F
2	Khushi	Comp	40000	M
3	Jayesh	It	30000	F
4	Lokesh	It	60000	M
5	Bhushan	Etc	50000	F
6	Manisha	Etc	90000	M

1. Display all the record
2. Display different Department name through aggregation
3. Find department wise total employees.
4. Find department wise total salary.
5. Find department wise total salary of female employee
6. Find department wise count of male employee
7. Find the total male employees
8. Find Minimum salary in the institute
9. Find maximum salary in the department of comp.
10. Find all male employee sort in ascending order of Emp-Name.

Q22. Find the total salary,Max salary, Min salary using Map –Reduce on Above Collection.