Basic SQL Questions

Scenario 1:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Employee Table** | |  | **Salary Table** | |
| **Id** | **Employee** |  | **Id** | **Salary** |
| 1 | Rohit |  | 1 | 2000 |
| 2 | Dhoni |  | 2 | 4000 |
| 3 | Virat |  | 4 | 1000 |
| 4 | Yuvraj |  | 5 | 3000 |
| 5 | Bumrah |  | 6 | 1000 |

From the above table find the Employee Name having 2nd highest salary. Write the query and output. Don’t use any analytical function.

For example :

|  |  |
| --- | --- |
| **Employee** | **Salary** |
| Yuvraj | 3000 |

Scenario 2:

|  |  |
| --- | --- |
| **Student Table** | |
| **Roll No** | **Student Name** |
| 101 | Sourav |
| 102 | Dhoni |
| 102 | Dhoni |
| 103 | Rohit |
| 104 | Sachin |
| 104 | Sachin |
| 104 | Sachin |
| 105 | Zaheer |
| 106 | Suresh |
| 106 | Suresh |

Delete duplicate records from student table. Write the query and output.

Scenario 3:

|  |  |  |
| --- | --- | --- |
| **Table A** |  | **Table B** |
| **COL** |  | **COL** |
| 1 |  | 1 |
| 1 |  | 0 |
| 0 |  | NULL |
| NULL |  | NULL |

Give the output of Inner join, Left join, Right Join, Full Outer join. Write the query and output.

Scenario 4 :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Batsman** |  | **Bowler** |  | **Indian Cricket Team** |
| **Player Name** |  | **Player Name** |  | **Player Name** |
| Sachin |  | Zaheer |  | Sachin |
| Dhoni |  | Sreesanth |  | Dhoni |
| Dhoni |  | Yuvraj |  | Sehwag……… |
| Sehwag |  | Harbhajan |  |  |
| Virat |  | Ashish |  |  |
| Virat |  | Zaheer |  |  |
| Sachin |  | Irfan |  |  |
| Gambhir |  | Zaheer |  |  |
| Suresh |  | Yuvraj |  |  |
| Suresh |  | Suresh |  |  |
| Yuvraj |  |  |  |  |
| Rohit |  |  |  |  |
|  |  |  |  |  |

You are a selector, you have list of batsman and bowler name in table. Write a simple query and insert the output into Indian Cricket Team table where there will be only one existence of player name in it.

Scenario 5 :

|  |  |  |  |
| --- | --- | --- | --- |
| **Student Table** | | | |
| **Roll No** | **Student Name** | **Subject Id** | **Grade** |
| 101 | Sourav | 4 | A |
| 102 | Dhoni | 2 | B |
| 102 | Dhoni | 4 | A |
| 103 | Rohit | 1 | C |
| 104 | Sachin | 2 | D |
| 104 | Sachin | 6 | A |
| 104 | Sachin | 7 | D |
| 105 | Zaheer | 3 | C |
| 106 | Suresh | 4 | C |
| 106 | Suresh | 8 | A |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Subject Table** | |  | **Grade Table** | |
| **Subject Id** | **Subject Name** |  | **Grade** | **Remarks** |
| 1 | C++ |  | A | Outstanding |
| 2 | Java |  | B | Good |
| 3 | Python |  | C | Average |
| 4 | SQL |  | D | Bad |
| 5 | AWS |  | E | Fail |
| 6 | GCP |  |  |  |
| 7 | AZURE |  |  |  |
| 8 | Snowflake |  |  |  |
|  |  |  |  |  |

Write a query to display student name who got Average remarks and in which subject.

For example :

|  |  |  |  |
| --- | --- | --- | --- |
| **Roll No** | **Student Name** | **Subject Name** | **Remarks** |
| 103 | Rohit | C++ | Average |

Scenario 6 :

|  |  |
| --- | --- |
| **Player Table** | |
| **Player Name** | **Skill** |
| Sourav | Bat |
| Sachin | Bat |
| Dhoni | Bat |
| Bumrah | Bowl |
| Zaheer | Bowl |
| Hardik | All |
| Ashwin | Bowl |
| Shardul | All |
| Umesh | Bowl |
| Virat | Bat |

Write a query and display all the player name with proper skill. If its ‘Bat’ then it will show ‘BATSMAN’, if its ‘Bowl’ then it will show ‘BOWLER’ and if its ‘All’ then it will show ‘ALLROUNDER’.

For example :

|  |  |
| --- | --- |
| **Player Name** | **Skill** |
| Sourav | BATSMAN |

Scenario 7:

|  |  |  |
| --- | --- | --- |
| **Employee Table** | | |
| **Id** | **Employee Name** | **Project Id** |
| 1001 | EN\_1 | Project\_1 |
| 1002 | EN\_2 | Project\_1 |
| 1003 | EN\_3 | Project\_2 |
| 1004 | EN\_4 | Project\_1 |
| 1005 | EN\_5 | Project\_2 |
| 1006 | EN\_6 | Project\_3 |
| 1007 | EN\_7 | Project\_2 |

Write a query to display how many employees are assigned to Project\_2

Scenario 8:

You are assigned to a database owner of a bank, you have been asked to manage new customer’s profile. For managing the customer’s profile you have to create a customer table where you will store customer id, customer name, pan number and branch name. In another table you have to create customer transaction data where you have to store customer id, customer transaction date , transaction amount, transaction mode id.   
Create one reference table Transaction Mode table with its id.

Below are the transaction modes :

1 - ATM cash withdrawal

2- ATM cash deposit

3- Cheque Deposit

4- Cheque Withdrawal

5- FixedDeposit

6-RecurringDeposit

7- SIP

Customer Table :

Customer\_Id number (PK), Customer\_Name string, Pan\_Number string, Branch\_Name string

Customer Transaction Table :

Customer\_Id number(FK), Customer\_Transaction\_Date date, Transaction\_Amnt number, Transaction\_Mode string

Transaction Mode Table :

Transaction\_Id number, Transaction\_Mode string.

Create 10 customers and make transactions of ATM cash deposit and SIP for 3 customers dated on sysdate

PK is Primary Key, FK is Foreign Key

Scenario 9:

|  |  |  |
| --- | --- | --- |
| **Employee Table** | | |
| **Id** | **Employee Name** | **Maildomain** |
| 1001 | EN\_1 | gmail.com |
| 1002 | EN\_2 | gmail.com |
| 1003 | EN\_3 | yahoo.in |
| 1004 | EN\_4 | gmail.com |
| 1005 | EN\_5 | rediff.com |
| 1006 | EN\_6 | yahoo.in |
| 1007 | EN\_7 | yahoo.in |

Write a query to display proper mail id for each employee.

For Example :

|  |  |  |
| --- | --- | --- |
| **Id** | **Employee Name** | **Mail Id** |
| 1001 | EN\_1 | EN\_1@gmail.com |
| 1002 | EN\_2 | EN\_2@gmail.com |
| 1003 | EN\_3 | EN\_3@yahoo.in |
| 1004 | EN\_4 | EN\_4@gmail.com |
| 1005 | EN\_5 | EN\_5@rediff.com |
| 1006 | EN\_6 | EN\_6@yahoo.in |
| 1007 | EN\_7 | EN\_7@yahoo.in |

Scenario 10:

|  |  |  |
| --- | --- | --- |
| **Employee Table** | | |
| **Id** | **Employee Name** | **Date of Joining** |
| 1001 | EN\_1 | 12-01-2021 |
| 1002 | EN\_2 | 02-05-2010 |
| 1003 | EN\_3 | 04-02-2011 |
| 1004 | EN\_4 | 19-12-2022 |
| 1005 | EN\_5 | 22-11-2003 |
| 1006 | EN\_6 | 14-02-2019 |
| 1007 | EN\_7 | 16-02-2023 |

Given above the employee name and their date of joining. Write a query to display the total experience (in days) of all the employee standing today.

For example : if today is 24-07-2023 then

|  |  |  |
| --- | --- | --- |
| **Id** | **Employee Name** | **TotalExperience\_indays** |
| 1001 | EN\_1 | 923 |
| 1002 | EN\_2 | 4831 |
| 1003 | EN\_3 | 4553 |
| 1004 | EN\_4 | 217 |
| 1005 | EN\_5 | 7184 |
| 1006 | EN\_6 | 1621 |
| 1007 | EN\_7 | 158 |