**SQL Codes and Query**

**Que 1.** You have provided a Table with name Date\_Amount, like

|  |  |
| --- | --- |
| **Date** | **Amount** |
| 01/02/2000 | 330 |
| 01/02/2000 | 440 |
| 02/02/2000 | 200 |
| 03/02/2000 | 500 |

Write a SQL query on which output would be like in ascending order of date and amount either decrease or increase from previous day. Output be like

|  |  |
| --- | --- |
| **Date** | **Changed\_by** |
| 01/02/2000 | 770 |
| 02/02/2000 | -570 |
| 03/02/2000 | 300 |

Ans:

**SELECT Date, ifnull ( SUM(Amount)-LAG( SUM (Amount) ) OVER(ORDER BY Date), SUM(Amount) ) as Changed\_by**

**FROM Date\_Amount**

**GROUP BY Date**

**ORDER BY Date ASC;**

**Que 2**. We have given a Table Country\_Worth with Individual person net worth with their country as

|  |  |  |
| --- | --- | --- |
| **Country** | **Name** | **Net\_Worth** |
| India | Mukesh Ambani | 400000000 |
| US | Bill Gates | 900000000 |
| US | Jeff Bezos | 950000000 |

Write a SQL query in order to find the cumulative net worth of top 10 individual for every country. Output be like

|  |  |
| --- | --- |
| **Country** | **Total\_net\_worth** |
| India | 1000000000 |
| US | 2000000000 |

Ans: **SELECT Country, MAX(net) as Total\_net\_worth**

**FROM (SELECT Country, SUM (Net\_Worth) OVER( PARTITION BY Country ORDER BY Net\_Worth DESC rows 9 PRECEDING) as net**

**FROM Country\_Worth ) Country\_Worth**

**GROUP BY Country;**

Que 3: We have given a Table Country\_Worth with Individual person net worth with their country as

|  |  |  |
| --- | --- | --- |
| **Country** | **Name** | **Net\_Worth** |
| India | Mukesh Ambani | 400000000 |
| US | Bill Gates | 900000000 |
| US | Jeff Bezos | 950000000 |

Write a SQL query in order to find the a country having average net worth greater than 1000000000 . Output be like

|  |  |
| --- | --- |
| **Country** | **avg\_net\_worth** |
| India | 1003000000 |
| US | 1900000000 |

Ans:

**SELECT Country, AVG(Net\_Worth) as avg\_net\_worth**

**FROM Country\_Worth**

**GROUP BY Country**

**HAVING AVG(Net\_Worth)> 1000000000;**

**Que 4**. Table Name-**msg**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **msg\_trn** | **msg\_type** | **Field\_code** | **Field\_value** | **Msg\_crea\_date** |
| TF1005 | 700 | 50 | CVC pvt ltd | 10/10/2020 |
| TF1006 | 710 | 59 | PVC | 01/09/2020 |
| TF1005 | 710 | 59 | Mahindra | 12/10/2020 |
| TF1005 | 707 | 59 | Mahindra | 12/11/2020 |
| TF1005 | 707 | 59 | ANOV | 17/11/2020 |

Find latest field\_value of Field\_code for each msg\_trn by using SQL quiry.

**Ans:**

**SELECT Field\_value, Field\_code ,MAX(from\_date)**

**FROM msg**

**GROUP BY msg\_trn;**

**Que 5. Case Details**

|  |  |  |
| --- | --- | --- |
| **ID** | **Queuname** | **Entrydate** |
| 1002 | Maker | 01/10/2020 |
| 1003 | Checker | 02/10/2020 |
| 1004 | Exception | 17/11/2020 |
| 1005 | Exception | 15/11/2020 |

**Exceptionview**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **queuname** | **Exception\_comment** | **actiondate** |
| 1005 | Exception | Id card missed | 04/09/2020 |
| 1004 | Exception | Signature mismatch | 01/09/2020 |
| 1004 | Exception | Id missed | 17/11/2020 |
| 1005 | Exception | Signature mismatch | 15/11/2020 |

Find the exact exception\_comment for the ids in “Exception” queuname of case\_details table.

Final output must contain the entire column from case\_details. Fill the “exception\_comment” with “NA’ where not available.

Ans:

**SELECT c.ID, c.Queuname, c.Entrydate, Ifnull(e.Exception\_comment,”NA”)**

**FROM case\_details as c**

**JOIN Exceptionview as e ON c.ID=e.ID**

**WHERE c.queuname=”Exception”;**

**Que 6.** Given table Debit\_card\_master . Work on Question to mask the debit card numbers. Use SQL query to mask it

**Debit\_card\_master**

|  |  |
| --- | --- |
| **Cif\_no** | **Debit\_card** |
| 06535333 | 123456467890 |
| 05938884 | 345678234567 |
| 05884742 | 678901234567 |

Output be like:

**Debit\_card**

|  |
| --- |
| 1234XXXX7890 |
| 3456XXXX4567 |
| 6789XXXX4567 |

**Ans:**

**SELECT CONCAT( LEFT(Debit\_card,4) , REPEAT(‘X’,4), RIGHT(Debit\_card,4)) as Debit\_card**

**FROM Debit\_card\_master;**

**Que 7**. If marks column contain the comma separated values from student table. Write a SQL Query to calculate the count of that comma separated values?

**Student**

|  |  |
| --- | --- |
| **Student\_name** | **Marks** |
| Amit | 30,49,27 |
| Sukruta | 20,30 |

Output would be:

|  |  |
| --- | --- |
| **Student\_name** | **Marks\_count** |
| Amit | 3 |
| Sukruta | 2 |

**Ans:**

**SELECT Student\_name, REGEXP\_COUNT (Marks) as Marks\_count**

**FROM Student;**

**Que 8.** Write a SQL query to count number of female employee in a table Employee**:**

**Employee**

|  |  |  |  |
| --- | --- | --- | --- |
| **Emp\_id** | **Emp\_fname** | **Emp\_lname** | **Gender** |
| 101 | rakesh | roshan | M |
| 103 | Radha | Mohan | F |

**Ans:**

**SELECT COUNT(\*) From Employee**

**WHERE Gender=”F”;**

**Que 9.** Write simple SQL query to create a new table which consists of data and structure of copied from another table:

**Ans:**

**SELECT \* INTO new\_table FROM Employee;**

**Que 10.** From the given table employee print the 3 highest salaries data.

|  |  |  |  |
| --- | --- | --- | --- |
| **Employee\_num** | **Employee\_name** | **Department** | **salary** |
| 1 | Aman | MARK | 360000 |
| 2 | Rohan | FUNC | 430000 |
| 3 | Mohan | MARK | 380000 |

Output be:

|  |
| --- |
| **salary** |
| 430000 |
| 380000 |
| 360000 |

**Ans:**

**SELECT \* FROM employee**

**ORDER BY salary DESC**

**Limit 3;**

**Que. 11.** What is the Query to fetch first record from Employee Table as given above?

**Ans SELECT \* FROM(**

**SELECT ROW\_NUMBER () over( ORDER BY emp\_no ASC) as rno, e.\* FROM employees as e) as rno**

**where rno=1;**

**Que. 12.**  How to fetch monthly salary of Employee if annual salary is given?

Output be.

|  |
| --- |
| **monthly\_salary** |
| 30000 |
| 36500 |
| 31200 |

**Ans: SELECT Employee\_name, salary/12 as monthly\_salary from Employee;**

**Que. 13:** How to Display odd rows in Employee table?

Output be:

|  |  |  |  |
| --- | --- | --- | --- |
| **Employee\_num** | **Employee\_name** | **Department** | **salary** |
| 1 | Aman | MARK | 360000 |
| 3 | Mohan | MARK | 380000 |
| 5 | Rakesh | BUSA | 570000 |

**Ans:**

**SELECT \* FROM(**

**SELECT ROW\_NUMBER() OVER( ORDER BY emp\_no ASC) as rno, e.\* FROM employees as e) as rno**

**WHERE MOD(rno,2)=1;**

**Que. 14.** How do I Fetch only common records between 2 tables?

**Ans :**

**SELECT \* FROM Employee**

**INTERSECT**

**SELECT \* FROM Employee1;**

**Que. 15. Find Query to get information of Employee where Employee is not assigned to the department.**

**Employee**

|  |  |  |  |
| --- | --- | --- | --- |
| **Emp\_no** | **Employee\_name** | **Department\_name** | **salary** |
| 1 | Mohan | MRKT | 500000 |
| 2 | Sohan | FINC | 550000 |

**Department**

|  |  |  |
| --- | --- | --- |
| **Dept\_no** | **Dept\_name** | **salary** |
| deno\_1 | MRKT | 500000 |
| deno\_2 | BISA | 600000 |

**Output be:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Emp\_no** | **Employee\_name** | **Dept\_name** | **salary** |
| 1 | Mohan | MRKT | 500000 |

**Ans: SELECT \* FROM Employee**

**WHERE Dept\_name NOT IN (SELECT Dept\_name FROM Department);**

**Que 16: how to write sql query for the below scenario**

**I/p:ORACLE**

**O/p:**  
**O  
R  
A  
C  
L  
E**i.e, splitting into multiple columns a string using sql.

**Ans:**

**SELECT SUBSTR (‘ORACLE’,Level,1) FROM DAUL**

**CONNECT BY Level<= LENGTH(‘ORACLE”);**

**Que. 17. How Do you find all Employees with its managers?(Consider there is manager id also in Employee table)**

**Employee**

|  |  |  |  |
| --- | --- | --- | --- |
| **Emp\_no** | **Emp\_name** | **Department\_name** | **salary** |
| 1 | Mohan | MRKT | 500000 |
| 2 | Sohan | FINC | 550000 |

**Manager**

|  |  |  |
| --- | --- | --- |
| **Mngr\_no** | **Mngr\_name** | **Joining\_date** |
| 1 | Rakesh | 2010-10-13 |
| 2 | Rohan | 2011-09-12 |

**Output be:**

|  |  |
| --- | --- |
| **Emp\_name** | **Mngr\_name** |
| Mohan | Rakesh |
| Sohan | Rohan |

**Ans:**

**SELECT e.emp\_name, m.mngr\_name FROM Employee as e**

**JOIN**

**Manager as m ON e.Emp\_no=m.Mngr\_no;**

**Que. 18: How to remove duplicate rows from table?**

**ANS:**

**DELETE FROM Employee**

**WHERE ID NOT IN**

**(**

**SELECT MAX(emp\_no) AS MaxRecordID**

**FROM Employee**

**GROUP BY Emp\_name, Department\_name, salary**

**);**

**Que. 19. Write a query to update “col2” s to exactly opposite to “col-1” values.**

**Columns**

|  |  |
| --- | --- |
| **Col1** | **Col2** |
| **1** | **0** |
| **0** | **1** |
| **0** | **0** |
| **1** | **0** |
| **0** | **1** |

**Ans:**

**UPDATE Columns set col2= (CASE**

**WHEN col1=1 THEN 0 ELSE 1 END);**

**Que 20: Given The table mass\_table. Write a SQL query to print weights in Kg and Gm.**

|  |
| --- |
| **weight** |
| **50.36** |
| **49.45** |
| **67.34** |
| **51.34** |

**Output be:**

|  |  |  |
| --- | --- | --- |
| **weight** | **kg** | **gm** |
| **50.36** | **50** | **36** |
| **49.45** | **49** | **49** |
| **67.34** | **67** | **34** |
| **51.34** | **51** | **34** |

**Ans :**

**SELECT weight, FLOOR (weight) as kg, ABS(weight-CAST( weight as INT)) as gm**

**FROM mass\_table;**