**-:SQL INTERVIEW QUESTION:-**

**-------------------before------------------------------------**

**SQL> connect**

**Enter user-name: system**

**Enter password:**

**Connected.**

**SQL>**

**-----------------------------------do it---------------------**

**Sample Table -> Worker**

CREATE TABLE Worker1 (WORKER\_ID int, FIRST\_NAME varchat2(20), LAST\_NAME varchar2(20), SALARY number(10), JOINING\_DATE timestamp DEPARTMENT);

SQL> INSERT INTO Worker1 (WORKER\_ID, FIRST\_NAME, LAST\_NAME, SALARY, JOINING\_DATE,DEPARTMENT)VALUES (1,'Vivek','Bhati', 500000, TO\_TIMESTAMP('2016-04-03 00:00:00', 'YYYY-MM-DD HH24:MI:SS'),'Admin');

1 row created.

SQL> INSERT INTO Worker1 (WORKER\_ID, FIRST\_NAME, LAST\_NAME, SALARY, JOINING\_DATE,DEPARTMENT)VALUES (6,'Satish','Kumar', 75000, TO\_TIMESTAMP('2014-02-03 00:00:00', 'YYYY-MM-DD HH24:MI:SS'),'Admin');

1 row created.

SQL> INSERT INTO Worker1 (WORKER\_ID, FIRST\_NAME, LAST\_NAME, SALARY, JOINING\_DATE,DEPARTMENT)VALUES (5,'Niharika','Varma', 800000, TO\_TIMESTAMP('2014-02-02 09:00:00', 'YYYY-MM-DD HH24:MI:SS'),'HR');

SQL> commit;

Commit complete.

**And so on-**

**001 Monika Arora 100000 2014-02-20 09:00:00 HR**

**002 Niharika Verma 800000 2014-02-20 09:00:00 Admin**

**003 Vishar Singhal 300000 2014-02-20 09:00:00 HR**

**004 Amitab Singh 500000 2014-02-20 09:00:00 Admin**

**005 Vivek Bhati 500000 2014-02-20 09:00:00 Admin**

**006 Vipul Diwan 200000 2014-02-20 09:00:00 Account**

**007 Satish Kumar 75000 2014-02-20 09:00:00 Account**

**008 Geetika Chauhan 90000 2014-02-20 09:00:00 Admin**

**select \* from Bonus;**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **WORKER\_ID** | **FIRST\_NAME** | **LAST\_NAME** | **SALARY** | **JOINING\_DATE** | **DEPARTMENT** |
| 1 | Monika | Arora | 100000 | 20-FEB-14 09.00.00.000000 AM | HR |
| 2 | Niharika | Verma | 800000 | 20-FEB-14 09.00.00.000000 AM | HR |
| 1 | Vivek | Bhati | 500000 | 03-APR-16 12.00.00.000000 AM | Admin |
| 6 | Vipul | Bhati | 500000 | 03-APR-16 12.00.00.000000 AM | Admin |
| 6 | Satish | Kumar | 75000 | 03-FEB-14 12.00.00.000000 AM | Admin |
| 5 | Niharika | Varma | 800000 | 02-FEB-14 09.00.00.000000 AM | HR |

**Sample Table -> Bonus**

SQL> CREATE TABLE Bonus1 (WORKER\_REF\_ID INT, BONUS\_DATE TIMESTAMP, BONUS\_AMOUNT NUMBER(20));

Table created.

INSERT INTO Bonus (WORKER\_REF\_ID, BONUS\_DATE, BONUS\_AMMOUNT)VALUES (12345, TO\_TIMESTAMP('2020-04-03 10:41:11', 'YYYY-MM-DD HH24:MI:SS'),5000);

1 row created.

SQL> commit;

Commit complete.

**And so on- 1**

**1 2016-02-20 00:00:00 5000**

**2 2016-06-11 00:00:00 3000**

**3 2016-02-20 00:00:00 4000**

**1 2016-02-20 00:00:00 4500**

**2 2016-06-11 00:00:00 3500**

**select \* from Bonus;**

|  |  |  |
| --- | --- | --- |
| **WORKER\_REF\_ID** | **BONUS\_DATE** | **BONUS\_AMMOUNT** |
| 12345 | 03-APR-20 10.41.11.000000 AM | 5000 |
| 1 | 03-APR-16 12.00.00.000000 AM | 3000 |
| 1 | 11-APR-16 12.00.00.000000 AM | 4000 |

**Create table Title :-**

SQL> CREATE TABLE Title (WORKER\_REF\_ID NUMBER(10) NOT NULL, WORKER\_TITLE VARCHAR2(25), AFFECTED\_FROM TIMESTAMP);

Table created.

SQL> INSERT INTO Title (WORKER\_REF\_ID, WORKER\_TITLE, AFFECTED\_FROM) VALUES (001, 'Manager', TO\_TIMESTAMP('2016-02-20 00:00:00', 'YYYY-MM-DD HH24:MI:SS'));

1 row created.

SQL> INSERT INTO Title (WORKER\_REF\_ID, WORKER\_TITLE, AFFECTED\_FROM) VALUES (002, 'Executive', TO\_TIMESTAMP('2016-06-11 00:00:00', 'YYYY-MM-DD HH24:MI:SS'));

1 row created.

SQL> INSERT INTO Title (WORKER\_REF\_ID, WORKER\_TITLE, AFFECTED\_FROM) VALUES (003, 'Executive', TO\_TIMESTAMP('2016-06-11 00:00:00', 'YYYY-MM-DD HH24:MI:SS'));

1 row created.

SQL> INSERT INTO Title (WORKER\_REF\_ID, WORKER\_TITLE, AFFECTED\_FROM) VALUES (004, 'Manager', TO\_TIMESTAMP('2016-06-11 00:00:00', 'YYYY-MM-DD HH24:MI:SS'));

1 row created.

SQL> INSERT INTO Title (WORKER\_REF\_ID, WORKER\_TITLE, AFFECTED\_FROM) VALUES (005, 'Asst. Manager', TO\_TIMESTAMP('2016-06-11 00:00:00', 'YYYY-MM-DD HH24:MI:SS'));

1 row created.

SQL> commit;

Commit complete.SQL> select \* into Title;

|  |  |  |
| --- | --- | --- |
| **WORKER\_REF\_ID** | **WORKER\_TITLE** | **AFFECTED\_FROM** |
| 1 | Manager | 20-FEB-16 12.00.00.000000 AM |
| 2 | Executive | 11-JUN-16 12.00.00.000000 AM |
| 3 | Executive | 11-JUN-16 12.00.00.000000 AM |
| 4 | Manager | 11-JUN-16 12.00.00.000000 AM |
| 5 | Asst. Manager | 11-JUN-16 12.00.00.000000 AM |

**And so on- 1**

**4 Asst. Manager 2016-06-11 00:00:00**

**7 Executive 2016-06-11 00:00:00**

**6 Lead 2016-06-11 00:00:00**

**3 Lead 2016-06-11 00:00:00**

**Sample DATABASE-> codesquadz**

**Q-1. Write an SQL query to fetch "FIRST\\_NAME" from the Worker table using the alias name <WORKER\\_NAME>.**

**Ans-->The required query is:**

SQL> Select FIRST\_NAME AS WORKER\_NAME from Worker1;

WORKER\_NAME

--------------------------------------------------------------------------------

Monika

Niharika

Vivek

**Q-2. Write an SQL query to fetch "FIRST\\_NAME" from the Worker table in upper case.**

**Ans-->The required query is:**

SQL> Select upper(FIRST\_NAME) from Worker1;

UPPER(FIRST\_NAME)

--------------------------------------------------------------------------------

MONIKA

NIHARIKA

VIVEK

**Q-3. Write an SQL query to fetch unique values of DEPARTMENT from the Worker table.**

**Ans-->The required query is:**

**Select distinct DEPARTMENT from Worker;**

**DEPARTMENT**

**--------------------------------------------------------------------------------**

**HR**

**Admin**

**Q-4. Write an SQL query to print the first three characters of FIRST NAME from the Worker table.**

**Ans-->The required query is:**

**SQL> SELECT SUBSTR(FIRST\_NAME, 1, 3) FROM Worker1;**

**SUBSTR(FIRST**

**------------**

**Mon**

**Nih**

**Viv**

**Q-5. . Write an SQL query to find the position of the alphabet ('a') in the first name column 'Amitabh' from the Worker table.**

**Ans-->The required query is:**

**Q-6 Write an SQL query to print the FIRST NAME from the Worker table after removing white spaces from the right side.**

**Ans-->The required query is:**

SQL> Select RTRIM(FIRST\_NAME) from Worker1;

RTRIM(FIRST\_NAME)

--------------------------------------------------------------------------------

Monika

Niharika

Vivek

**Q-7. Write an SQL query to print the DEPARTMENT from the Worker table after removing white spaces from the left side.**

**Ans-->The required query is:**

**SQL> Select LTRIM(DEPARTMENT) from Worker1;**

**LTRIM(DEPARTMENT)**

**--------------------------------------------------------------------------------**

**HR**

**HR**

**Admin**

**Q-8. Write an SQL query that fetches the unique values of DEPARTMENT from the Worker table and prints its length.**

**Ans-->The required query is:**

**SQL> Select distinct length(DEPARTMENT) from Worker1;**

**LENGTH(DEPARTMENT)**

**------------------**

**2**

**5**

**Q-9. Write an SQL query to print the FIRST\_NAME from the Worker table after replacing 'a' with 'A'.**

**Ans-->The required query is:**

**SQL> Select REPLACE(FIRST\_NAME,'a','A') from Worker;**

**no rows selected**

**Q-10. Write an SQL query to print the FIRST NAME and LAST\_NAME from the Worker table into a single column COMPLETE\_NAME. A space char should separate them.**

**Ans-->The required query is:**

**SQL> Select CONCAT(FIRST\_NAME,' ',LAST\_NAME) AS 'COMPLETE\_NAME' from Worker1;**

**Select CONCAT(FIRST\_NAME,' ',LAST\_NAME) AS 'COMPLETE\_NAME' from Worker1**

**\***

**ERROR at line 1:**

**ORA-00909: invalid number of arguments**

**Then I try**

**SQL> SELECT FIRST\_NAME || ' ' || LAST\_NAME AS COMPLETE\_NAME FROM Worker1;**

**COMPLETE\_NAME**

**--------------------------------------------------------------------------------**

**Monika Arora**

**Niharika Verma**

**Vivek Bhati**

**Q-11 Write an SQL query to print all Worker details from the Worker table order by FIRST\_NAME Ascending.**

**Ans-->The required query is:**

**SQL> Select \* from Worker1 order by FIRST\_NAME asc;**

**WORKER\_ID**

**----------**

**FIRST\_NAME**

**--------------------------------------------------------------------------------**

**LAST\_NAME**

**--------------------------------------------------------------------------------**

**SALARY**

**----------**

**JOINING\_DATE**

**---------------------------------------------------------------------------**

**DEPARTMENT**

**--------------------------------------------------------------------------------**

**1**

**WORKER\_ID**

**----------**

**FIRST\_NAME**

**--------------------------------------------------------------------------------**

**LAST\_NAME**

**--------------------------------------------------------------------------------**

**SALARY**

As it is continue

**Q-12: Write an SQL query to print all Worker details from the Worker table order by FIRST\_NAME Ascending and DEPARTMENT Descending.**

**Ans-->The required query is:**

**SQL> SELECT \* FROM Worker1 ORDER BY FIRST\_NAME ASC, DEPARTMENT DESC;**

**WORKER\_ID**

**----------**

**FIRST\_NAME**

**--------------------------------------------------------------------------------**

**LAST\_NAME**

**--------------------------------------------------------------------------------**

**SALARY**

**Q-13 Write an SQL query to print details for Workers with the first names "Vipul" and "Satish" from the Worker table.**

**Ans-->The required query is:**

**SELECT \* FROM Worker1 WHERE FIRST\_NAME NOT IN ('Vivek', 'Satish');**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **WORKER\_ID** | **FIRST\_NAME** | **LAST\_NAME** | **SALARY** | **JOINING\_DATE** | **DEPARTMENT** |
| 1 | Monika | Arora | 100000 | 20-FEB-14 09.00.00.000000 AM | HR |
| 2 | Niharika | Verma | 800000 | 20-FEB-14 09.00.00.000000 AM | HR |
| 6 | Vipul | Bhati | 500000 | 03-APR-16 12.00.00.000000 AM | Admin |

**Q-14 Write an SQL query to print details of workers excluding first names "Vipul" and "Satish" from the Worker table.**

**Ans-->The required query is:**

**SQL> Select \* from Worker1 where FIRST\_NAME not in ('Vipul','Satish');**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **WORKER\_ID** | **FIRST\_NAME** | **LAST\_NAME** | **SALARY** | **JOINING\_DATE** | **DEPARTMENT** |
| 1 | Monika | Arora | 100000 | 20-FEB-14 09.00.00.000000 AM | HR |
| 2 | Niharika | Verma | 800000 | 20-FEB-14 09.00.00.000000 AM | HR |
| 1 | Vivek | Bhati | 500000 | 03-APR-16 12.00.00.000000 AM | Admin |

**Q-15 Write an SQL query to print details of Workers with DEPARTMENT name as "Admin".**

**Ans-->The required query is:**

**Select \* from Worker where DEPARTMENT like 'Admin%';**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **WORKER\_ID** | **FIRST\_NAME** | **LAST\_NAME** | **SALARY** | **JOINING\_DATE** | **DEPARTMENT** |
| 1 | Vivek | Bhati | 500000 | 03-APR-16 12.00.00.000000 AM | Admin |
| 6 | Vipul | Bhati | 500000 | 03-APR-16 12.00.00.000000 AM | Admin |
| 6 | Satish | Kumar | 75000 | 03-FEB-14 12.00.00.000000 AM | Admin |

**Q-16 Write an SQL query to print details of the Workers whose FIRST NAME contains 'a'.**

**Ans-->The required query is:**

**Select \* from Worker1 where FIRST\_NAME like '%a%';**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **WORKER\_ID** | **FIRST\_NAME** | **LAST\_NAME** | **SALARY** | **JOINING\_DATE** | **DEPARTMENT** |
| 1 | Monika | Arora | 100000 | 20-FEB-14 09.00.00.000000 AM | HR |
| 2 | Niharika | Verma | 800000 | 20-FEB-14 09.00.00.000000 AM | HR |
| 6 | Satish | Kumar | 75000 | 03-FEB-14 12.00.00.000000 AM | Admin |

**Q-17 Write an SQL query to print details of the Workers whose FIRST NAME ends with 'a'.**

**Ans-->The required query is:**

**Select \* from Worker1 where FIRST\_NAME like '%a';**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **WORKER\_ID** | **FIRST\_NAME** | **LAST\_NAME** | **SALARY** | **JOINING\_DATE** | **DEPARTMENT** |
| 1 | Monika | Arora | 100000 | 20-FEB-14 09.00.00.000000 AM | HR |
| 2 | Niharika | Verma | 800000 | 20-FEB-14 09.00.00.000000 AM | HR |

**Q-18 Write an SQL query to print details of the Workers whose FIRST\_NAME ends with 'h' and contains six alphabets.**

**Ans-->The required query is:**

**Select \* from Worker1 where FIRST\_NAME like '\_\_\_\_\_h%';**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **WORKER\_ID** | **FIRST\_NAME** | **LAST\_NAME** | **SALARY** | **JOINING\_DATE** | **DEPARTMENT** |
| 6 | Satish | Kumar | 75000 | 03-FEB-14 12.00.00.000000 AM | Admin |

**Q-19 Write an SQL query to print details of the Workers whose SALARY lies between 100000 and 500000**

**Ans-->The required query is:**

**Select \* from Worker1 where SALARY between 100000 and 500000;**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **WORKER\_ID** | | **FIRST\_NAME** | **LAST\_NAME** | **SALARY** | **JOINING\_DATE** | **DEPARTMENT** |
| 1 | | Monika | Arora | 100000 | 20-FEB-14 09.00.00.000000 AM | HR |
| 1 | | Vivek | Bhati | 500000 | 03-APR-16 12.00.00.000000 AM | Admin |
| 6 | | Vipul | Bhati | 500000 | 03-APR-16 12.00.00.000000 AM | Admin |
|  | |  | [CSV Export](http://127.0.0.1:8080/apex/f?p=4500:1204:498679870465731::::P1204_BROWSER_LANG:en-us) |

**Q-20 Write an SQL query to print details of the Workers who joined in Feb'2014.**

**Ans-->The required query is:**

**Select \* from Worker1 where year(JOINING\_DATE) = 2014 and month(JOINING\_DATE) = 2;**

**Q-21 Write an SQL query to fetch the count of employees working in the department 'Admin'.**

**Ans-->The required query is:**

**SELECT COUNT(\*) FROM worker1 WHERE DEPARTMENT = 'Admin';**

|  |
| --- |
| **COUNT(\*)** |
| 3 |

**Q-22 Write an SQL query to fetch worker names with salaries >= 50000 and <= 100000.**

**Ans-->The required query is:**

**SELECT CONCAT(FIRST\_NAME, ' ', LAST\_NAME) As Worker\_Name, Salary FROM Worker1 WHERE WORKER\_ID IN (SELECT WORKER\_ID FROM worker WHERE Salary BETWEEN 800000 AND 75000);**

**Q-23 Write an SQL query to fetch the number of workers for each department in descending order.**

**Ans-->The required query is:**

**Select DEPARTMENT, COUNT(\*) as Number\_of\_Workers from worker1 group by DEPARTMENT order by Number\_of\_Workers desc;**

|  |  |
| --- | --- |
| **DEPARTMENT** | **NUMBER\_OF\_WORKERS** |
| Admin | 3 |
| HR | 3 |

**Q-24 Write an SQL query to fetch the average salary for each department.**

**Ans-->The required query is:**

**SELECT DISTINCT W.FIRST\_NAME, T.WORKER\_TITLE**

**FROM Worker1 W**

**INNER JOIN Title T**

**ON W.WORKER\_ID = T.WORKER\_REF\_ID**

**WHERE T.WORKER\_TITLE in ('Manager');**

|  |  |
| --- | --- |
| **FIRST\_NAME** | **WORKER\_TITLE** |
| Monika | Manager |
| Vivek | Manager |

**Q-25 Write an SQL query to fetch duplicate records having matching data in some fields of a table.**

**Ans-->The required query is: The required query is:**

**SELECT WORKER\_TITLE, AFFECTED\_FROM, COUNT(\*)**

**FROM Title**

**GROUP BY WORKER\_TITLE, AFFECTED\_FROM**

**HAVING COUNT(\*) > 1;**

|  |  |  |
| --- | --- | --- |
| **WORKER\_TITLE** | **AFFECTED\_FROM** | **COUNT(\*)** |
| Executive | 11-JUN-16 12.00.00.000000 AM | 2 |

**Q-26 Write an SQL query to show only odd rows from a table.**

**Ans-->The required query is:**

**SELECT \* FROM Worker1 WHERE MOD (WORKER\_ID, 2) <> 0;**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **WORKER\_ID** | **FIRST\_NAME** | **LAST\_NAME** | **SALARY** | **JOINING\_DATE** | **DEPARTMENT** |
| 1 | Monika | Arora | 100000 | 20-FEB-14 09.00.00.000000 AM | HR |
| 1 | Vivek | Bhati | 500000 | 03-APR-16 12.00.00.000000 AM | Admin |
| 5 | Niharika | Varma | 800000 | 02-FEB-14 09.00.00.000000 AM | HR |

**Q-27. Write an SQL query to show only even rows from a table.**

**Ans-->The required query is:**

**SELECT \* FROM Worker WHERE MOD (WORKER\_ID, 2) = 0;**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **WORKER\_ID** | **FIRST\_NAME** | **LAST\_NAME** | **SALARY** | **JOINING\_DATE** | **DEPARTMENT** |
| 2 | Niharika | Verma | 800000 | 20-FEB-14 09.00.00.000000 AM | HR |
| 6 | Vipul | Bhati | 500000 | 03-APR-16 12.00.00.000000 AM | Admin |
| 6 | Satish | Kumar | 75000 | 03-FEB-14 12.00.00.000000 AM | Admin |

**Q-28. Write an SQL query to clone a new table from another table.**

**Ans-->The required query is:**

**The general query to clone a table with data is :**

**SELECT \* INTO WorkerClone FROM Worker1;**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**Q-29 Write an SQL query to fetch intersecting records of two tables.**

**Ans-->The required query is:**

**Q-30 Write an SQL query to show records from one table that another table does not have.**

**Ans-->The required query is:**

**SELECT \* FROM Worker1;**

**MINUS**

**SELECT \* FROM Title;**

ORA-01789: query block has incorrect number of result columns

**Q-** **31. Write an SQL query to show the current date and time.**

**Ans-->The required query is:**

**Q-** **32. Write an SQL query to show the top n (say 10) records of a table.**

**Ans-->The required query is:**

**Q-** **33. Write an SQL query to determine the nth (say n=5) highest salary from a table.**

**Ans-->The required query is:**

**Q-** **34. Write an SQL query to determine the 5th highest salary without using the TOP or limit method.**

**Ans-->The required query is:**

**Q-** **35. Write an SQL query to fetch the list of employees with the same salary.**

**Ans-->The required query is:**

**Q-12**

**Ans-->The required query is:**

**Q-12**

**Ans-->The required query is:**

**Q-12**

**Ans-->The required query is:**

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