**SQL Query Questions**

1. **Create a table with a single field as primary key.**

CREATE TABLE Students (

ID INT NOT NULL

Name VARCHAR(255)

PRIMARY KEY (ID)

);

1. **Create a table with a single field as Unique.**

CREATE TABLE Students (

ID INT NOT NULL UNIQUE

Name VARCHAR(255)

);

1. **Create a table with a single field as Foreign key.**

CREATE TABLE Students (

ID INT NOT NULL

Name VARCHAR(255)

LibraryID INT

PRIMARY KEY (ID)

FOREIGN KEY (Library\_ID) REFERENCES Library(LibraryID)

);

1. **What are the different types of joins?**

There are four different types of JOINs in SQL:

=> (INNER) JOIN: Inner Join is also called Eqvi Join, where it retrieves records that have matching values in both tables involved in the join. This is the widely used join for queries.

Example: ->SELECT \*

FROM Table\_A

JOIN Table\_B;

->SELECT \*

FROM Table\_A

INNER JOIN Table\_B;

=> LEFT (OUTER) JOIN: Retrieves all the records/rows from the left hand side table and only the matched records/rows from the right hand side table.

Example:SELECT \*

FROM Table\_A A

LEFT JOIN Table\_B B

ON A.col = B.col;

=> RIGHT (OUTER) JOIN: Retrieves all the records/rows from the right hand side table and only the matched records/rows from the left hand side table.

Example: SELECT \*

FROM Table\_A A

RIGHT JOIN Table\_B B

ON A.col = B.col;

=> FULL (OUTER) JOIN: Retrieves all the records where there is a match in both the tables, plus additional rows on both left hand side table and right hand side table.

Example: SELECT \*

FROM Table\_A A

FULL JOIN Table\_B B

ON A.col = B.col;

1. **How to create a table in SQL?**

* CREATE TABLE table\_name (

column1 datatype(size),

column2 datatype(size),

column3 datatype(size),

....

);

* CREATE TABLE employee (

name varchar(25),

age int,

gender varchar(25)

);

1. **How to delete a table in SQL?**

DROP TABLE table\_name;

1. **How to change a table name in SQL?**

* ALTER TABLE table\_name

RENAME TO new\_table\_name;

* ALTER TABLE employee

RENAME TO employee\_information;

1. **How to delete a row in SQL?**

* DELETE FROM table\_name

WHERE [condition];

* DELETE FROM employee

WHERE age=25;

1. **How to create a database in SQL?**

CREATE DATABASE database\_name.

1. **How do I view tables in SQL?**

Show tables;

1. **Write a query for the update command in SQL?**

UPDATE employees

SET last\_name=‘Cohen’

WHERE employee\_id=101;

1. **Write a query to get the current date.**

SELECT GETDATE();

**EMPLOYEE TABLE**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **EMPLOYEE\_ID** | **FIRST\_NAME** | **LAST\_NAME** | **SALARY** | **JOINING\_DATE** | **DEPARTMENT** |
| 1 | Gopi | Krishna | 1000000 | 01-JAN-16 12.00.00 AM | Banking |
| 2 | Mukundha | Muraari | 800000 | 01-JAN-16 12.00.00 AM | Insurance |
| 3 | Naveen | Kumar | 700000 | 01-FEB-16 12.00.00 AM | Banking |
| 4 |  |  | 600000 | 01-FEB-16 12.00.00 AM | Insurance |
| 5 | Jerry | Pinto | 650000 | 01-FEB-16 12.00.00 AM | Insurance |
| 6 | Philip | Mathew | 750000 | 01-JAN-16 12.00.00 AM | Services |
| 7 | TestName1 | 123 | 650000 | 01-JAN-16 12.00.00 AM | Services |
| 8 | TestName2 | Lname% | 600000 | 01-FEB-16 12.00.00 AM | Insurance |

**INCENTIVE TABLE**

|  |  |  |
| --- | --- | --- |
| **EMPLOYEE\_ID** | **INCENTIVE\_DATE** | **INCENTIVE\_AMOUNT** |
| 1 | 01-FEB-16 | 5000 |
| 2 | 01-FEB-16 | 3000 |
| 3 | 01-FEB-16 | 4000 |
| 1 | 01-JAN-16 | 4500 |
| 2 | 01-JAN-16 | 3500 |

1. **Get all employee details from the employee table.**

SELECT \* FROM EMPLOYEE;

1. **Get First\_name, Last Name from employee table.**

**SELECT FIRST\_NAME, LAST\_NAME**

**FROM EMPLOYEE;**

1. **Get First\_name from employee table using alias name “Employee Name”.**

SELECT FIRST\_NAME as EMPLOYEE\_NAME

FROM EMPLOYEE;

1. ****Get First\_name from employee table in upper case**.**

**SELECT UPPER (FIRST\_NAME)**

**FROM EMPLOYEE;**

1. **Get First\_name from employee table in lower case.**

**SELECT LOWER (FIRST\_NAME)**

**FROM EMPLOYEE;**

1. **Get unique DEPARTMENT from employee table.**

**SELECT DISTINCT DEPARTMENT**

**FROM EMPLOYEES;**

1. **SQL Query to find second highest salary of Employee.**

**SELECT MAX (SALARY)**

**FROM EMPLOYEE**

**WHERE SALARY NOT IN (SELECT MAX (SALARY) FROM EMPLOYEE);**

1. **SQL Query to find nth highest salary of Employee.**

SELECT \*FROM EMPLOYEE Emp1

WHERE (N-1) =

(SELECT COUNT (DISTINCT (Emp2.Salary))

FROM Employee Emp2

WHERE Emp2.Salary > Emp1.Salary);

1. **Get First\_name and Last Name as single column from employee table separated by a '\_'.**  
   SELECT FIRST\_NAME||’\_’||LAST\_NAME FROM EMPLOYEE;
2. **Get department wise minimum salaries from employee table order by salary ascending?**

SELECT DEPARTMENT, MIN (SALARY) MINSALARY FROM EMPLOYEE

GROUP BY DEPARTMENT

ORDER BY MINSALARY ASC;

1. **Select first name, incentive amount from employee and incentives table for those employees who have incentives.**

**SELECT EMP.FIRST\_NAME, INCN.INCENTIVE\_AMOUNT**

**FROM EMPLOYEE EMP**

**INNER JOIN INCENTIVE INCN**

**ON EMP.EMPLOYEE\_ID=INCN.EMPLOYEE\_ID;**

1. **Select first name, incentive amount from employee and incentives table for those employees who have incentives and incentive amount greater than 3000.**

**SELECT EMP.FIRST\_NAME, INCN.INCENTIVE\_AMOUNT**

**FROM EMPLOYEE EMP**

**INNER JOIN INCENTIVE INCN**

**ON EMP.EMPLOYEE\_ID=INCN.EMPLOYEE\_ID;**

**AND INCENTIVE\_AMOUNT >3000;**

1. **Select TOP 2 salaries from employee table.**

**SELECT \* FROM**

**(SELECT \* FROM EMPLOYEE ORDER BY SALARY DESC)**

**WHERE ROWNUM <3;**

1. **Write the syntax to find current date and time in format “YYYY-MM-DD” using function.**

**SELECT TO\_CHAR (SYSDATE, 'YYYY-MM-DD HH24: MI: SS’) "Current\_Date"   FROM DUAL;**

1. **SQL query to find the highest salary.**

**SELECT MAX (SAL) FROM EMP;**

1. **SQL query to find the lowest salary.**

**SELECT MIN (SAL) FROM EMP;**

1. **How to find the current date of system?**

SELECT CURRENT\_DATE

FROM dual;

1. **How to find current date and time of system?**

SELECT systimestamp FROM dual;

1. ****Select first name, incentive amount from employee and incentives table for all employees even if they didn't get incentives****

**SELECT FIRST\_NAME, INCENTIVE\_AMOUNT**

**FROM EMPLOYEE EMP**

**LEFT JOIN INCENTIVE INCN**

**ON EMP.EMPLOYEE\_ID=INCN.EMPLOYEE\_ID;**

1. **Select first name, incentive amount from employee and incentives table for all employees even if they didn't get incentives and set incentive amount as 0 for those employees who didn't get incentives.**

**SELECT FIRST\_NAME, NVL (INCENTIVE\_AMOUNT, 0)**

**FROM EMPLOYEE EMP**

**LEFT JOIN INCENTIVE INCN**

**ON EMP.EMPLOYEE\_ID=INCN.EMPLOYEE\_ID;**