**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: 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 and the matched records/rows from the right 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 and the matched records/rows from the left 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 either the left or right 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,

column2 datatype,

column3 datatype,

....

);

* 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;**