Interview Questions on SQL are based on following two tables, Employee Table and Employee Incentive Table.

**Table Name : Employee EMP\_ID As PRIMARY KEY**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| EMPLOYEE\_ID | FIRST\_NAME | LAST\_NAME | SALARY | JOINING\_DATE | DEPARTMENT | | |
| 1 | Venkatesh | S | 100000 | 08/28/2015 | | BANKING | | |
| 2 | Ragavi | P | 75000 | 08/28/2015 | | | BUSINESS | |
| 3 | Gopinath | C | 50000 | 03/02/2016 | | | PHARMA | |
| 4 | Dinesh | G | 50000 | 03/02/2016 | | | INSURANCE | |
| 5 | Saibabu | E | 40000 | 07/08/2017 | | | SOFTWARE | |
| 6 | Hasan | S | 29000 | 07/08/2017 | | | MANUFACTURING | |
| 7 | Divya | P | 33000 | 07/08/2017 | | | HEALTHCARE | |
| 8 | Aravindan | R | 40000 | 07/08/2017 | | | HEALTHCARE | |
| 9 | Sathish | MD | 45000 | 03/02/2016 | | | AUTOMOBILE | |
| 10 | Prasanth | PKP | 34000 | 03/02/2016 | | | INSURANCE | |
| 11 | Vijay | R | 25684 | 03/02/2016 | | | BUSINESS | |
| 12 | Sivakumar | K | 54789 | 03/02/2016 | | | SOFTWARE | |

**Table Name : Incentives**

|  |  |  |
| --- | --- | --- |
| **EMPLOYEE\_REF\_ID** | **INCENTIVE\_DATE** | **INCENTIVE\_AMOUNT** |
| 1 | 01-FEB-16 | 5000 |
| 2 | 01-FEB-16 | 3000 |
| 3 | 01-FEB-17 | 4000 |
| 1 | 01-JAN-17 | 4500 |
| 2 | 01-JAN-17 | 3500 |

**SQL Queries Interview Questions and Answers on "SQL Select" - Examples**

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”**

**The table only output the value**

**select FIRST\_NAME as Employee\_Name from employee;**

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

**SELECT UPPER(First\_Name) AS First\_Name FROM employee;**

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

**select lower(first\_name) as first\_name from employee;**

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

**select distinct department from employee;**

1. **Select first 3 characters of FIRST\_NAME from EMPLOYEE**

**SELECT substring(FIRST\_NAME,1,3) FROM employee;**

1. **Get position of 'a' in name 'ragavi' from employee table**

**select position('a'in"ragavi") as position\_value;**

1. **Get FIRST\_NAME from employee table after removing white spaces from right side**

**SELECT TRIM(first\_name) FROM employee;**

1. **Get FIRST\_NAME from employee table after removing white spaces from left side**

**SELECT TRIM(first\_name) FROM employee;**

1. **Get length of FIRST\_NAME from employee table**

**select length(first\_name) from employee;**

1. **Get First\_Name from employee table after replacing 'a' with '$'**

**select replace(first\_name,'a','$') from employee;**

1. **Get First\_Name and Last\_Name as single column from employee table separated by a '\_'**

**Select concat(first\_name, '\_',LAST\_NAME) from employee;**

1. **Get FIRST\_NAME ,Joining year,Joining Month and Joining Date from employee table**

**select joining\_date from employee;**

**Database SQL Queries Interview Questions and answers on "SQL Order By"**

1. **Get all employee details from the employee table order by First\_Name Ascending**

**select \* from employee ORDER BY first\_name asc;**

1. **Get all employee details from the employee table order by First\_Name descending**

select\*from employee order by first\_name desc;

1. **Get all employee details from the employee table order by First\_Name Ascending and Salary descending**

**select first\_name,salary from employee ORDER BY first\_name asc, salary desc;**

**SQL Queries Interview Questions and Answers on "SQL Where Condition" - Examples**

1. **Get employee details from employee table whose employee name is “Dinesh”**

**select \* from employee where first\_name="dinesh";**

1. **Get employee details from employee table whose employee name are “Dinesh” and “Roy”**

**select \* from employee where first\_name in ('john','roy');**

1. **Get employee details from employee table whose employee name are not “Dinesh” and “Roy”**

**select \* from employee where first\_name not in ('john','roy');**

**SQL Queries Interview Questions and Answers on "SQL Wild Card Search" - Examples**

1. **Get employee details from employee table whose first name starts with 's'**

**select\*from employee where first\_name like 'S%';**

1. **Get employee details from employee table whose first name contains 'v'**

**select\*from employee where first\_name like 'v%';**

1. **Get employee details from employee table whose first name ends with 'n'**

**select\*from employee where first\_name like '%n';**

**SQL Queries Interview Questions and Answers on "SQL Pattern Matching" - Examples**

1. **Get employee details from employee table whose first name ends with 'n' and name contains 4 letters**

**select substring(first\_name,1,4) from employee where first\_name like '%n';**

1. **Get employee details from employee table whose first name starts with 'J' and name contains 4 letters**

**select substring(first\_name,1,4) from employee where first\_name like '%n';**

1. **Get employee details from employee table who’s Salary greater than 60000**

**select \* from employee where Salary>60000;**

1. **Get employee details from employee table who’s Salary less than 80000**

**select \* from employee where Salary<80000;**

1. **Get employee details from employee table who’s Salary between 50000 and 80000**

**select \* from employee where Salary>50000 and salary<80000;**

1. **Get employee details from employee table whose name is venkatesh and ragavi**

**select \* from employee where first\_name in ('venkatesh','ragavi');**

**SQL Queries Interview Questions and Answers on "SQL DATE Functions" - Examples**

1. **Get employee details from employee table whose joining year is “2015”**

**select \* from employee where extract(year from joining\_date)=2015;**

1. **Get employee details from employee table whose joining month is “January”**

**select \* from employee where extract(month from joining\_date)=01;**

1. **Get employee details from employee table who joined before January 1st 2017**

**select \* from employee where extract(year from joining\_date)<2017;**

1. **Get employee details from employee table who joined after January 31st 2016**

**select \* from employee where extract(year from joining\_date)<2016;**

**SQL Queries Interview Questions and Answers on "SQL Escape Characters" - Examples**

1. **Get names of employees from employee table who has '%' in Last\_Name. Tip : Escape character for special characters in a query.**

**select first\_name from employee where last\_name like '%[%]%';**

**40. Get Last Name from employee table after replacing special character with white space**

**SQL Queries Interview Questions and Answers on "SQL Group By Functions" - Examples**

**Select REPLACE(LAST\_NAME,'%',' ') from employee;**

1. **Get department,total salary with respect to a department from employee table.**

**select sum(salary) from employee;**

1. **Get department,total salary with respect to a department from employee table order by total salary descending**

**select sum(salary) from employee order by salary desc;**

**SQL Queries Interview Questions and Answers on "SQL Mathematical Operations using Group By" - Examples**

1. **Get department,no of employees in a department,total salary with respect to a department from employee table order by total salary descending**

**select sum(salary),count(department) from employee;**

1. **Get department wise average salary from employee table order by salary ascending**

**select avg(salary) from employee;**

1. **Get department wise maximum salary from employee table order by salary ascending**

**select max(salary) from employee;**

1. **Get department wise minimum salary from employee table order by salary ascending**

**select min(salary) from employee;**

1. **Select no of employees joined with respect to year and month from employee table**

**select(joining\_date),joining\_date from employee group by joining\_date;**

**48. Select department,total salary with respect to a department from employee table where total salary greater than 800000 order by Total\_Salary descending**

**select EMPLOYEE\_ID,concat(FIRST\_NAME,' ',Last\_NAME),joining\_date from employee having joining\_date=20170708 order by concat(FIRST\_NAME,Last\_NAME) asc;**

**SQL Queries Interview Questions and Answers on "SQL Joins" - Examples**

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

**selectIncentives.employee\_ref\_id,concat(employee.first\_name," ",employee.last\_name),(employee.salary+sum(INCENTIVE\_AMOUNT)) from INCENTIVEs inner join employee where employee.EMPLOYEE\_ID=1 and INCENTIVEs.EMPLOYEE\_REF\_ID=1 ;**

**Inner join (common values a^b)**

**Outer join (full join aVb)**

**Left outer join(left all values PRINT and match as right value)**

**Right outer join(right all values PRINT and match as left value)**

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

**select first\_name,incentive\_amount from employee a inner join incentives b on a.employee\_id=b.employee\_ref\_id and incentive\_amount >3000;**

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

**select first\_name,incentive\_amount from employee a left join incentives b on a.employee\_id=b.employee\_ref\_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, incentive\_amount from employee a inner join incentives b on a.employee\_id=b.employee\_ref\_id;**

1. **Select first\_name, incentive amount from employee and incentives table for all employees who got incentives using left join**

**select first\_name, ifnull(incentive\_amount,0) from employee a right join incentives b on a.employee\_id = b.employee\_ref\_id;**

**54. Select max incentive with respect to employee from employee and incentives table using sub query**

**select department,(select ifnull (max(incentive\_amount),0) from incentives where employee\_ref\_id = employee\_id) max\_incentive from employee;**

**Advanced SQL Queries Interview Questions and Answers on "Top N Salary" - Examples**

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

**select \* from employee order by salary desc limit 2;**

1. **Select TOP N salary from employee table**

**select \* from employee order by salary desc limit 1;**

1. **Select 2nd Highest salary from employee table**

**select min(salary) from (select \* from employee order by salary desc limit 2) a;**

1. **Select Nth Highest salary from employee table**

**select min(salary) from (select \* from employee order by salary desc limit n) a;**

**SQL Queries Interview Questions and Answers on "SQL Union" - Examples**

1. **Select First\_Name,LAST\_NAME from employee table as separate rows**

**select first\_name from employee union select last\_name from employee;  
60. What is the difference between UNION and UNION ALL ?  
Union And Union All In Sql Are Used To Retrieve Data From Two Or More Tables.Union Returns Distinct Records From Both The Table, While Union All Returns All The Records From Both The Tables.**

**"Advanced SQL Queries Interview Questions and Answers"**

**61Select employee details from employee table if data exists in incentive table ?**

**select \* from employee where exists (select \* from incentives);**

**62.How to fetch data that are common in two query results ?**

**Here "INTERSECT" command is used to fetch data that are common in 2queries. In this example, we had taken EMPLOYEE table in both the queries.**

**63.Get Employee ID's of those employees who didn't receive incentives without using sub query ?**

**select employee\_id from employee minus select employee\_ref\_id from incentives;**

**64.Select 20 % of salary from venkat , 10% of Salary for gopi and for other 15 % of salary from employee table**

**select first\_name, case first\_name when 'john' then salary \* .2 when 'roy' then salary \* .10 else salary \* .15 end "deduced\_amount" from employee ;**

**65.Select Banking as 'Bank Dept', Insurance as 'Insurance Dept' and Services as 'Pharma Dept' from employee table**

**select case department when 'banking' then 'bank dept' when 'insurance' then 'insurance dept' when 'services' then 'services dept' end from employee;**

**66.Delete employee data from employee table who got incentives in incentive table**

**delete from employee where employee\_id in (select employee\_ref\_id from incentives);**

**67.Insert into employee table Last Name with " ' " (Single Quote - Special Character)**

**68.Select Last Name from employee table which contain only numbers**

**select \* from employee where lower(last\_name)=upper(last\_name);**

**69.Write a query to rank employees based on their incentives for a month**

**select first\_name,incentive\_amount,dense\_rank() over (partition by incentive\_date order by incentive\_amount desc) as rank from employee a, incentives b where a.employee\_id = b.employee\_ref\_id;**

1. **Update incentive table where employee name is 'Dinesh'**

**update incentives set incentive\_amount = '9000' where employee\_ref\_id =(select employee\_id from employee where first\_name = 'john' );**