**SQL Essential Solutions**

1. Create department table with following columns.

Dept\_id -- Data Type: Integer Primary key,

D\_Name --Data Type: NVARCHAR (100) Not null,

Contact\_no -- Data Type: Integer Unique

**Solution:**

CREATE TABLE Department (

Dept\_id int PRIMARY KEY,

D\_Name nvarchar (100) NOT NULL,

Contack\_no int UNIQUE

);

2. Create employee table with following columns

Emp\_id -- Data Type: Integer (Primary Key),

Dept\_id -- Data Type: Integer (Foreign Key),

Emp\_name --Data Type: NVARCHAR (100),

Designation --Data Type: NVARCHAR (100)

Salary -- Data Type: Money

**Solution:**

CREATE TABLE Employee (

Emp\_id int PRIMARY KEY,

Dept\_id int FOREIGN KEY REFERENCES Department(Dept\_id),

Emp\_name nvarchar (100),

Designation nvarchar(100),

Salary money

);

3. ADD A NEW CLOUMN IN DEPARTMENT TABLE

Column – City

Data Type – NVARCHAR (50)

**Solution:**

ALTER TABLE Department

ADD City nvarchar(50);

4. CHANGE THE DATATYPE OF SALARY TO CHAR(10) IN EMPLOYEE

Data Type: Change from Money to Char (10);

**Solution:**

ALTER TABLE Employee

ALTER COLUMN Salary char(10);

5. DELETE THE ‘CITY’ COLUMN FROM THE DEPARTMENT TABLE

Column: City

**Solution:**

ALTER TABLE Department

DROP COLUMN City;

6. RENAME A COLUMN(D\_NAME) IN DEPARTENT TABLE to (Dept\_NAME)

**Solution:**

SP\_RENAME ‘Department.D\_Name’, ’Dept\_Name’, ‘COLUMN’;

7. Update the Contact\_No of employee who stays in ‘Bangalore’ and id = 6

**Solution:**

UPDATE employee

SET contact\_no = 1234 WHERE city = ‘Bangalore’ and emp\_id = ‘emp-6’;

8. Select given selective columns from employee table.

EMP\_ID

EMP\_NAME

DESIG

**Solution:**

SELECT emp\_id, emp\_name, desig FROM employee;

9. Select all details of employee whose salary is greater than 30000.

**Solution:**

SELECT \* FROM employee where salary>30000;

10. Select details of employee whose salary is between 15000 and 30000

**Solution:**

SELECT \* FROM employee where salary BETWEEN 15000 AND 30000;

11. Select \* from employee who lives in ‘Bangalore’ or ‘New Delhi’

**Solution:**

SELECT \* FROM employee WHERE city IN (‘Bangalore’, ‘New Delhi’);

12. Select \* from employee who do not stay in cities ‘Bangalore’ and ‘New Delhi’

**Solution:**

SELECT \* FROM employee WHERE city NOT IN (‘Bangalore’, ‘New Delhi’);

13. Select details of employee whose name starts with character ‘A’

**Solution:**

SELECT \* FROM employee WHERE emp\_name LIKE ‘a%’;

14. Arrange the details of employee in descending order of their salary.

**Solution:**

SELECT \* FROM employee ORDER BY salary DESC;

15. Retrieve the average salary of employee per department.

**Solution:**

SELECT dept\_id, avg(salary) as avgsalary from employee group by dept\_id;

16. Get the details of Employee( dept\_id, Salary) and its average salary whose average salary is greater than 30000

**Solution:**

SELECT dept\_id, salary, avg(salary) from employee where (SELECT avg(salary) FROM employee)>30000;

17. Query1. Fetch following details for employee with id = 2

Emp\_Id

Name

Dept

Dept\_Id

Age

Salary

**Solution:**

SELECT Company.Emp\_id, Company.Name, Department.Dept, Department.Dept\_ID,Company.Age, Company.Salary FROM Company INNER JOIN Department ON Company.Emp\_ID = Department.Emp\_ID WHERE Company.Emp\_ID = 2;

18. Create a stored procedure to fetch following columns from Company and Dept2 table based on a given emp id.

Emp\_Id

Name

Dept ,

Dep\_Id,

Age

Salary

**Solution:**

CREATE PROCEDURE SelectEmp @Emp\_ID int

AS

SELECT Company.Emp\_id, Company.Name, Department.Dept, Department.Dept\_ID,Company.Age, Company.Salary FROM Company INNER JOIN Department ON Company.Emp\_ID = Department.Emp\_ID WHERE Company.Emp\_ID = @Emp\_ID

GO;

19. Create a view to fetch the details of employee with following columns

Emp\_Id

Name

Dept ,

Dep\_Id,

Age

Salary

**Solution:**

CREATE VIEW [EmpDetails]

AS

SELECT Company.Emp\_id, Company.Name, Department.Dept, Department.Dept\_ID,Company.Age, Company.Salary FROM Company INNER JOIN Department ON Company.Emp\_ID = Department.Emp\_ID WHERE Company.Emp\_ID = 2;