SQL Essentials

Certification Project

edureka!

Problem Statement: Execute the following set of queries

DATA DEFINITION LANGUAGE (DDL)

AIM: Create a database to implement DDL basic commands using the Employee database as given below.

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

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

3. ADD A NEW CLOUMN IN DEPARTMENT TABLE

   Column – City

   Data Type – NVARCHAR (50)

4. CHANGE THE DATATYPE OF SALARY TO CHAR(10) IN EMPLOYEE
   Data Type: Change from Money to Char (10);

5. DELETE THE 'CITY' COLUMN FROM THE DEPARTMENT TABLE

   Column: City

6. RENAME A COLUMN(D_NAME) IN DEPARTENT TABLE to (Dept_NAME)

DATA MANIPULATION LANGUAGE (DML)

Insert Values in employee table as per table below.

Output pane

Data Output | Explain | Messages | History

	emp_id character(10)	dept_id character(10)	emp_name character varying(20)	desig character varying(20)	salary numeric	contact_no character varying(10)	city character varying(20)
1	emp-1	dep-1	S Ahmad	Sales Mgr	50000	0110	New Delhi
2	emp-2	dep-2	Anand	Senior Mgr	40000	0111	New Delhi
3	emp-3	dep-3	Aruna	Accounts Mgr	45000	0112	New Delhi
4	emp-4	dep-3	Alpesh	Accountant	35000	0113	Bangalore
5	emp-5	dep-1	Monica	Incharge	25000	0114	Noida
6	emp-6	dep-1	Harish	Sales Man	15000	0115	Bangalore

7. Update the Contact_No of employee who stays in 'Bangalore' and id = 6

8. Select given selective columns from employee table.
   EMP_ID
   EMP_NAME
   DESIG

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

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

11. Select * from employee who lives in 'Bangalore' or 'New Delhi'

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

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

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

15. Retrieve the average salary of employee per department.

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

JOINS, STORED PROCEDURE AND VIEW

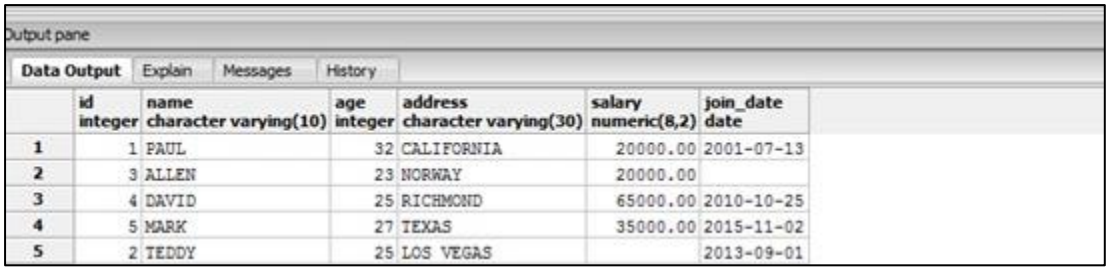
AIM: Create a Company and a Dept Database and solve the various join operations.

Step1. Create Company Table

Columns

a. Emp_id – Data Type Integer
   Name NVARCHAR (50),
   Age – Data Type: Integer,
   Address – Data Type: NVARCHAR (50),
   Salary – Data Type: Numeric (8, 2),
   Join date – Date Type: Date)

Step2. Insert below data in Company Table.



Output pane

Data Output | Explain | Messages | History

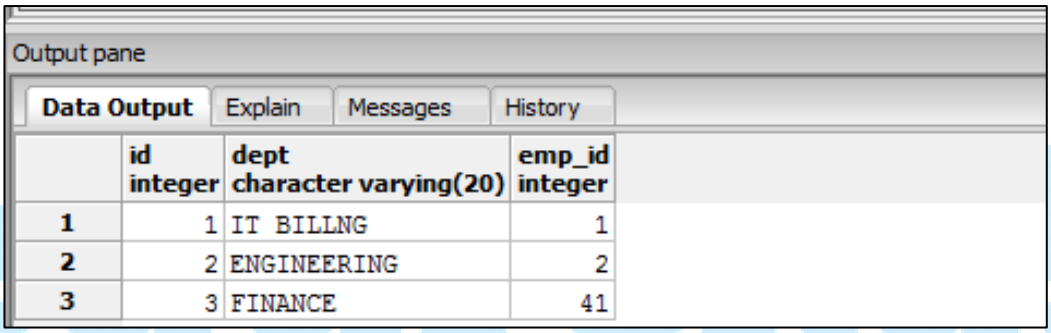
	id integer	name character varying(10)	age integer	address character varying(30)	salary numeric(8,2)	join_date date
1	1	PAUL	32	CALIFORNIA	20000.00	2001-07-13
2	3	ALLEN	23	NORWAY	20000.00	
3	4	DAVID	25	RICHMOND	65000.00	2010-10-25
4	5	MARK	27	TEXAS	35000.00	2015-11-02
5	2	TEDDY	25	LOS VEGAS		2013-09-01

Step3. Create Dept Table

Columns

a. Id – Data Type: Integer,
b. Dept -- Data Type: NVARCHAR(20)
c. emp_id – Data Type: Integer

Step4. Insert below data in dept table



Output pane

Data Output | Explain | Messages | History

	id integer	dept character varying(20)	emp_id integer
1	1	IT BILLNG	1
2	2	ENGINEERING	2
3	3	FINANCE	41

17. Query1. Fetch following details for employee with id = 2
    Emp_Id
    Name
    Dept
    Dept_Id
    Age
    Salary

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

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

Emp_Id
Name
Dept ,
Dep_Id,
Age
Salary