/\*SQL Essentials - Certification Project

DATA DEFINITION LANGUAGE (DDL)\*/

-- To use Employee Database

Use Employee

go

-- 1. Creation of department table

Create table dbo.department (Dept\_id Integer,

D\_Name NVARCHAR(100) not null,

Contact\_no Integer Unique,

Constraint PK\_department Primary Key(Dept\_id)

)

go

-- 2. Creation of employee table

Create table dbo.employee (Emp\_id Integer,

Dept\_id Integer,

Emp\_name NVARCHAR(100),

Designation NVARCHAR(100),

Salary Money,

Constraint PK\_employee Primary Key(Emp\_id),

Constraint FK\_employee Foreign Key(Dept\_id) references dbo.department

)

go

-- 3. To add a new column in department table

Alter table dbo.department add City NVARCHAR(50)

go

-- 4. To change the datatype of 'Salary' column from Money to CHAR(10)

Alter table dbo.employee alter column Salary char(10)

go

-- 5. To delete the 'City' column from employee table

Alter table dbo.department drop column City

go

-- 6. To rename a column 'D\_Name' in department table to 'Dept\_Name'

Exec sp\_rename 'DBO.department.D\_Name' ,'Dept\_Name','COLUMN'

go

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DATA MANIPULATION LANGUAGE (DML)\*/

-- To add the 'Contact\_no' and 'City' columns in employee table

Alter table dbo.employee add Contact\_no nvarchar(10)

go

Alter table dbo.employee add City nvarchar(20)

go

Alter table dbo.employee alter column Salary float

go

Alter table dbo.employee drop constraint PK\_employee

go

Alter table dbo.employee alter column Emp\_id char(10) not null

go

Alter table dbo.employee add constraint PK\_employee Primary Key(Emp\_id)

go

Alter table dbo.employee drop constraint FK\_employee

go

Alter table dbo.employee alter column Dept\_id char(10) not null

go

-- Inserting the given data at the question paper into employee table

Insert into dbo.employee values ('emp-1','dep-1','S Ahmed','Sales Mgr',50000,'0110','New Delhi'),

('emp-2','dep-2','Anand','Senior Mgr',40000,'0111','New Delhi'),

('emp-3','dep-3','Aruna','Accounts Mgr',45000,'0112','New Delhi'),

('emp-4','dep-3','Alpesh','Accountant',35000,'0113','Bangalore'),

('emp-5','dep-1','Monica','Incharge',25000,'0114','Noida'),

('emp-6','dep-1','Harish','Sales Man',15000,'0115','Bangalore')

go

-- 7. To Update employee table 'Contact no' column who stays in ‘Bangalore’ and id = 6

Update dbo.employee set Contact\_no = '8012345678' where City = 'Bangalore' and Emp\_id = 'emp-6'

go

-- 8. To Select EMP\_ID, EMP\_NAME, DESIG from employee table

Select Emp\_id, Emp\_name, Designation from dbo.employee

go

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

Select \* from dbo.employee where Salary > 30000

go

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

Select \* from dbo.employee where Salary between 15000 and 30000

go

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

Select \* from dbo.employee where City = 'Bangalore' or City = 'New Delhi'

go

Select \* from dbo.employee where City in ('Bangalore' , 'New Delhi')

go

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

Select \* from dbo.employee where City not in ('Bangalore' , 'New Delhi')

go

Select \* from dbo.employee where City != 'Bangalore' and City != 'New Delhi'

go

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

Select \* from dbo.employee where Emp\_name like 'A%'

go

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

Select \* from dbo.employee order by Salary desc

go

-- 15. Retrieve the average salary of employee per department

Select Dept\_id,AVG(Salary) as Average from dbo.employee group by Dept\_id

go

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

Select dept\_id, Sum(Salary) as Total\_Salary , AVG(Salary) as Average\_Salary from dbo.employee group by dept\_id

having AVG(Salary) > 30000 order by Dept\_id asc

go

/\*SQL Essentials - Certification Project

JOINS, STORED PROCEDURE AND VIEW\*/

Use Company

go

-- To Create Company Table

Create table Company.dbo.Company (Emp\_id Integer, Name NVARCHAR (50), Age Integer, Address NVARCHAR(50), Salary Numeric(8,2), Join\_date Date)

go

-- To Insert data in Company Table

Insert into dbo.Company values (1, 'PAUL',32,'CALIFORNIA',20000.00,'2001-07-13'),

(3,'ALLEN',23,'NORWAY',20000.00,null),

(4,'DAVID',25,'RICHMOND',65000.00,'2010-10-25'),

(5,'MARK',27,'TEXAS',35000.00,'2015-11-02')

GO

Insert into dbo.Company (Emp\_id, Name, Age, Address, Join\_date) values (2,'TEDDY',25,'LOS VEGAS','2013-09-01')

go

-- To Create Dept Table

Use Dept

go

Create table dbo.Dept (Id Integer, Dept NVARCHAR(20), emp\_id Integer)

GO

-- To Insert data in Dept table

Insert into dbo.Dept values (1, 'IT BILLNG', 1), (2,'ENGINEERING',2),(3,'FINANCE',41)

GO

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

Select c.Emp\_Id, c.Name, d.Dept, d.Id as Dept\_Id, c.Age, c.Salary from Company.dbo.Company as c

inner join Dept.dbo.Dept as d

on c.Emp\_Id = d.emp\_id where c.Emp\_Id = 2

go

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

Create Procedure sp\_companydetails (@Emp\_Id as Integer)

as

begin

(Select c.Emp\_Id, c.Name, d.Dept, d.Id as Dep\_Id, c.Age, c.Salary from Company.dbo.Company as c

inner join Dept.dbo.Dept as d

on c.Emp\_Id = d.emp\_id where c.Emp\_Id = @Emp\_Id)

end

go

-- To Execute this Proc created at 18th

Declare @Emp\_Id as Integer

Execute dept.dbo.sp\_companydetails @Emp\_Id = 1

go

-- 19. Create a view to fetch the details of employee

Create View Employee\_View as (

(Select c.Emp\_Id, c.Name, d.Dept, d.Id as Dep\_Id, c.Age, c.Salary from Company.dbo.Company as c

full outer join Dept.dbo.Dept as d

on c.Emp\_Id = d.emp\_id )

)

go

Select \* from Employee\_View