--Task 1: Create the table PROGRAMMER with the given information using SQL CREATE TABLE commands:

CREATE TABLE PROGRAMMER (

EmpNo INT NOT NULL,

LastName VARCHAR(50),

FirstName VARCHAR(50),

Hiredate DATE,

ProjId VARCHAR(50),

Languages VARCHAR(50),

TaskNo INT,

PrivilegE VARCHAR(50),

UNIQUE(EmpNo)

)

INSERT INTO PROGRAMMER VALUES (201, 'Gupta', 'Saurav', '1/1/95', 'NPR' ,'VB', 52, 'Secret')

SELECT \* FROM PROGRAMMER

INSERT INTO PROGRAMMER VALUES(390, 'Ghosh', 'Pinky', '1/5/93', 'KCW', 'JAVA', 11, 'TopSecret')

INSERT INTO PROGRAMMER VALUES(789, 'Agarwal', 'Praveen', '8/3/98', 'RNC', 'VB', 11, 'Secret');

INSERT INTO PROGRAMMER VALUES(134, 'Chaudhury', 'Supriyo', '7/15/95', 'TIPPS', 'C++', 52, 'Secret');

INSERT INTO PROGRAMMER VALUES(896, 'Jha', 'Ranjit', '6/15/97', 'KCW', 'JAVA', 10, 'TopSecret');

INSERT INTO PROGRAMMER VALUES(345, 'John', 'Peter', '11/15/99', 'TIPPS', 'JAVA', 52, null);

INSERT INTO PROGRAMMER VALUES(563, 'Anderson', 'Andy', '08/15/94', 'NITTS', 'C++', 89, 'Confidential');

--Task 3 : Saurav Gupta is assigned a different project with id NITTS and he would work with C++ now.Update

--this change in the PROGRAMMER table.

SELECT \* FROM PROGRAMMER

WHERE LastName = 'GUPTA'

UPDATE PROGRAMMER

SET ProjId ='NITTS', Languages = 'C++'

WHERE EmpNo = 201;

SELECT \* FROM PROGRAMMER

WHERE LastName = 'GUPTA'

SELECT \* FROM PROGRAMMER

--Task 4 : Supriyo Chaudhury has resigned his job. Delete the record from the tablePROGRAMMER.

DELETE FROM PROGRAMMER

WHERE EmpNo = 134;

SELECT \* FROM PROGRAMMER

--Task 5 : The column TaskNo in the PROGRAMMER table is no longer needed. Delete the column.

ALTER TABLE PROGRAMMER

DROP COLUMN TaskNo

SELECT \* FROM PROGRAMMER

--Task 6 : create table Department

CREATE TABLE Department1 (

DeptNo int NOT NULL,

Dname VARCHAR(20),

Loc VARCHAR(20) NOT NULL,

UNIQUE(DeptNo)

)

Select \* from Department1

--Task 7: In DEPARTMENT table, increase the field width if DNAME from 20 to50

ALTER TABLE Department1

ALTER COLUMN Dname VARCHAR(50);

--Task 8: Insert the following data into the Department table

INSERT INTO Department1 VALUES(10, 'ACCOUNTS', 'NEWYORK');

INSERT INTO Department1 VALUES(20, 'MARKETING', 'CHICAGO');

INSERT INTO Department1 VALUES(30, 'SALES', 'ATLANTA');

INSERT INTO Department1 VALUES(40, 'RESEARCH', 'OHIO');

Select \* from Department1

--Task 9 : Create table EMP

CREATE TABLE EMP (

EmpNo INT NOT NULL PRIMARY KEY,

Ename VARCHAR(10) NOT NULL,

Job VARCHAR(50) NOT NULL,

Sal INT NOT NULL,

Hiredate DATE NOT NULL,

Deptno INT FOREIGN KEY REFERENCES Department1(DeptNo)

)

INSERT INTO EMP VALUES (7001, 'JAMES', 'CLERK', 3000, '6/5/2005', 10);

SELECT \* FROM EMP

INSERT INTO EMP VALUES(7002, 'MASON', 'PRESIDENT', 10000,' 6/6/2005', 20);

INSERT INTO EMP VALUES(7003, 'CLARK', 'MANAGER', 5000, '6/5/2004', 20);

INSERT INTO EMP VALUES(7004, 'JOHN', 'MANAGER', 6000, '6/8/2005', 10);

INSERT INTO EMP VALUES(7005, 'BLAKE', 'CLERK', 3500, '6/9/2005', 30);

SELECT \* FROM EMP

--Task 11 : Create table Grade

CREATE TABLE GRADE(

GradeNo INT NOT NULL PRIMARY KEY,

Hi\_sal INT,

Lo\_sal INT

)

SELECT \* FROM GRADE

--Task 12 : Drop the column Lo\_sal from Grade Table

ALTER TABLE GRADE

DROP COLUMN Lo\_sal

SELECT \* FROM GRADE

--Add column Low\_sal in Grade table

ALTER TABLE GRADE

ADD Low\_sal int

SELECT \* FROM GRADE

--Task 14: Insert the following data into the table

INSERT INTO GRADE VALUES(1, 2000, 500);

INSERT INTO GRADE VALUES(2, 3500, 2100);

INSERT INTO GRADE VALUES(3, 6000, 360);

INSERT INTO GRADE VALUES(4, 15000, 6100);

SELECT \* FROM GRADE

--Task 16: Create table EMP\_BACK from EMP table

SELECT \*

INTO EMP\_BACK

FROM EMP;

select \* from EMP\_BACK

--Task 17:Increase the salary of JAMES from 3000 to350

UPDATE EMP

SET Sal = Sal + 350

WHERE EmpNo =7001

select \* from EMP

--Task 18: Increase the salary of all MANAGER by 100

UPDATE EMP

SET Sal = Sal + 100

where Job = 'MANAGER'

select \* from EMP

--Task 19: Decrease the salary of DEPTNO 10 by 10

UPDATE EMP

SET Sal = Sal - 10

where Deptno = 10

select \* from EMP

--Task 22: Remove the employees who have joined before 6-Jun-2005

DELETE FROM EMP

WHERE Hiredate < '2005-06-06';

select \* from EMP

--Task 23: Remove employees whose salary is less than 3000

DELETE FROM EMP

WHERE Sal <3000

--Task 24: List all employees who are working in department 10

Select \* from EMP

WHERE Deptno = 10

--Task 25: List all employees of department 10 and are MANAGER

Select \* from EMP

WHERE Deptno = 10 and Job ='MANAGER'

--Task 26: List all employees whose salary is between 3000 and 5000

Select \* from EMP

WHERE Sal between 3000 and 5000

--Task 27: List all employees who have joined after 10th July 2005

Select \* from EMP

WHERE Hiredate > '2005-07-10'

--Task 28 : List all employees who are MANAGER or PRESIDENT

Select \* from EMP

WHERE Job in ('MANAGER', 'PRESIDENT')

--Task 29 : List all employees who are in deptno 10 or 20 and who are MANAGERS

Select \* from EMP

WHERE Deptno= 10 OR Deptno= 20 and Job ='MANAGER'

--Task 30 : Update the commission of employees in deptno 10 to 500 need to discuss ----------------------------------

UPDATE EMP

SET Deptno = 500

where Deptno = 10

--Task 32: List the employees who are not a PRESIDENT or MANAGER

SELECT \*

FROM EMP

WHERE Job NOT IN ('PRESIDENT', 'MANAGER');

--Task 33: List all employees whose name begin with J

SELECT \*

FROM EMP

WHERE Ename LIKE 'J%';

--Task 34 : List all employees whose name consists of A

SELECT \*

FROM EMP

WHERE Ename LIKE '%A%';

--Task 35: List the employee SAL, COMM and bonus (Bonus issal+comm.)

Select Sal, Comm, Sal + Comm as Bonus from EMP

--Task 36: Display the salary of employees of MANAGER increased by 10%. The output should display salary and

--increased salary

--Task 37 : Update the salary of MANAGER by 10%

--Task 38: Display the employees in the descending order of names

SELECT \*

FROM EMP

ORDER BY ENAME

--Task 39: Display the employees in the ascending order of deptno, Job

SELECT \*

FROM EMP

ORDER BY Deptno, Job asc

--Task 40: Display all the employee names with the first letter in capitals and all the other characters inlower ------------------

--case

--Task 41 : Display all the employee names in lower case

SELECT LOWER(EName) AS Name

FROM EMP;

--Task 42: Display the employee name and the position of letter A in each name

SELECT EName, CHARINDEX('A', EName) AS PositionOfA

FROM EMP;

--Task 43: Extract the last 3 characters in employee name and display them.

SELECT RIGHT(EName, 3) AS LastThreeCharacters

FROM EMP;

--Task 44: Display the employee name and the length of the name

Select Ename,LEN(Ename) length\_of\_name from EMP

--Task 45 : Display the current system date and time

SELECT GETDATE() AS CurrentDateTime

--Task 46 : Display the number of employees in each department

Select Deptno,count(\*) as no\_of\_employee from EMP

GROUP BY Deptno

--Task 47 : Display the number of employees in each department jobwise

Select Deptno,Job, count(\*) as no\_of\_employee from EMP

GROUP BY Deptno,Job

--Task 48: Display the total number of employees in the table

Select count(\*) as total\_employee from EMP

--Task 49: Display the employee earning the highestsalary

with cte as (

Select \*,

rank() over (order by Sal desc) as rnk

from EMP)

SELECT \* FROM cte

where rnk =1

--Task 50 : Select all employees who draw more salary than their departmental average

--need some more date to view this