ASSIGNMENT 1
(Winter Sem 2021-2022)

Course Code: CSE2007 **Course Title:** Database Management Systems

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Reg No: 20BCD7171

Aim: **To study Data Definition and Data Manipulation commands.**
Consider the following schema:
Table Name: Employee

Attribute	Data Type
First Name	VARCHAR2(15)
Mid Name	CHAR(2)
Last Name	VARCHAR2(15)
SSN Number	CHAR(9)
Birthday	DATE
Address	VARCHAR2(50)
Sex	CHAR(1)
Salary	NUMBER (7)
Supervisor SSN	CHAR(9)
Department Number	NUMBER (5)

Table Name: Department

Attribute	Data Type
Department Name	Varchar2(15)
Department Number	Number(5)
ManagerSSN	CHAR(9)
ManageStartDate	DATE

Table Name: Project

Attribute	Data Type
Project Name	VARCHAR2(15)
Project Number	NUMBER(5)
Project Location	VARCHAR2(15)
Department Number	NUMBER(5)

Questions

1. **Create the tables Employee, department, and Project.**

   Sol)

   CREATE TABLE EMPLOYEEI_20BCD7171(FIRST_NAME VARCHAR(15),MID_NAME CHAR(2),LAST_NAME VARCHAR(15),SSN_NUMBER CHAR(9),BIRTHDAY DATE,ADDRESS VARCHAR2(50),SEX CHAR(1),SALARY NUMBER(7),SUPERVISOR_SSN CHAR(9),DEPARTMENT_NUMBER NUMBER(5));

   CREATE TABLE DEPARTMENTS_20BCD7171(DEPT_NAME VARCHAR2(15),DEPT_NO NUMBER (5),MANAGERSSN CHAR (9),MANAGESTARTDATE DATE);

   CREATE TABLE PROJECTS_20BCD7171(PROJECTNAME VARCHAR2(15),PROJECTNUMBER NUMBER(5),PROJECTLOCATION VARCHAR2(15),DEPT_NO NUMBER(5));
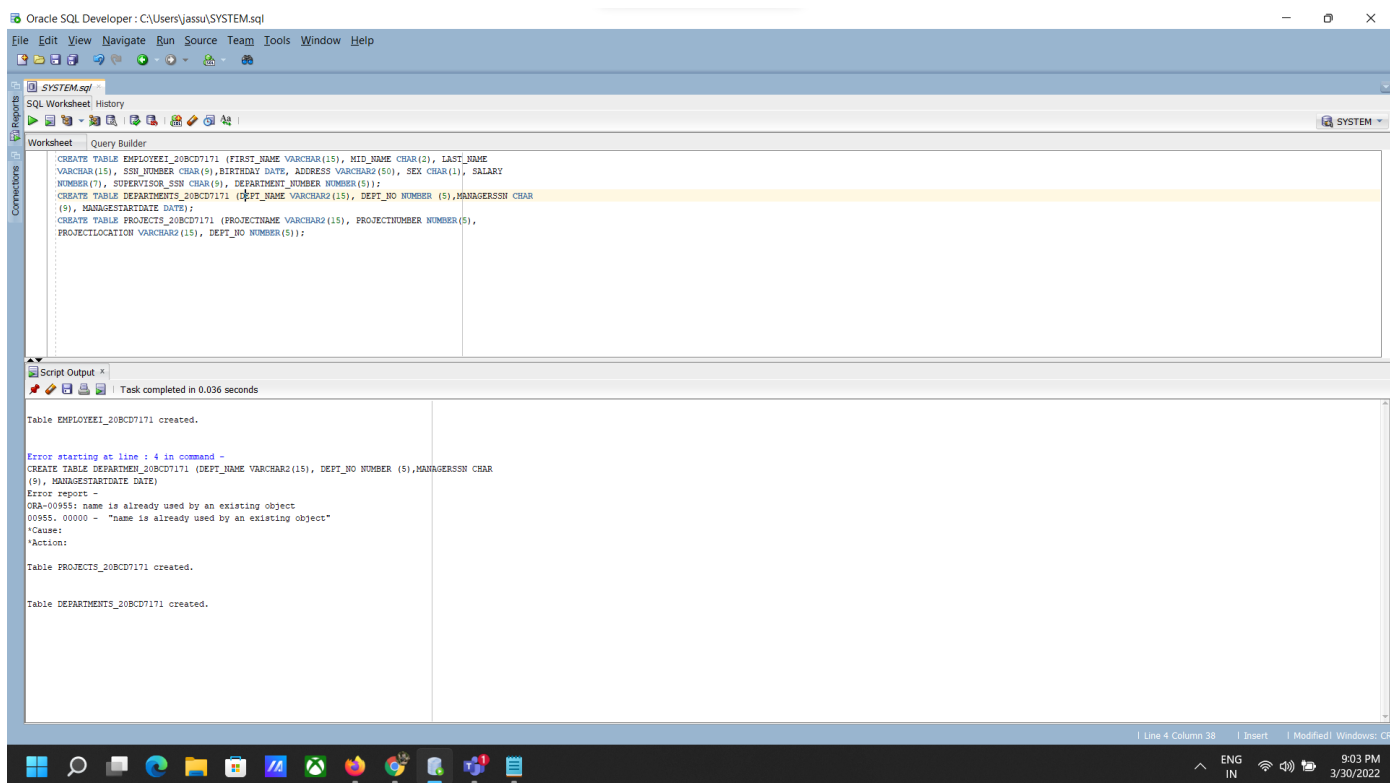
2. **Insert the data given in employee, department and project tables as given below:**

EMPLOYEE

FIRST_NAME	MID_NAME	LAST_NAME	SSN_NUMBER	BIRTHDAY	ADDRESS	SEX	SALARY	SUPERVISOR_SSN	DEPARTMENT_NUMBER
Doug	E	Gilbert	554433221	09-06-60	11 S 59 E, Salt Lake City, UT	M	80000	(null)	3
Joyce	(null)	PAN	543216789	07-02-78	35 S 18 E, Salt Lake City, UT	F	70000	(null)	2
Frankin	T	Wong	333445555	08-12-45	638 Voss, Houston, TX	M	40000	554433221	5
Jennifer	S	Wallace	987654321	20-06-31	291 Berry, Bellaire, TX	F	43000	554433221	4
Johny	B	Smith	123456789	09-01-55	731 Fondren, Houston, TX	M	30000	333445555	5
Ramesh	K	Narayan	666884444	15-09-52	975 Fire Oak, Humble, TX	M	38000	333445555	5
Joyce	A	English	453453453	31-07-62	5631 Rice, Houston, TX	F	25000	333445555	5
James	E	Borg	888665555	10-11-27	450 Stone, Houston, TX	M	55000	543216789	1
Alicia	J	Zelaya	999887777	19-07-58	3321 Castle, Spring, TX	F	25000	987654321	4
Ahmad	V	Jabbar	987987987	29-03-59	980 Dallas, Houston, TX	M	25000	987654321	4

Department

DEPT_NAME	DEPT_NO	MANAGERSSN	MANAGESTARTDATE
Administration	2	543216789	04-01-99
Headquarter	3	554433221	22-09-55
Finance	4	987654321	01-01-85
Research	5	333445555	22-05-78

Project

PROJECTNAME	PROJECTNUMBER	PROJECTLOCATION	DEPT_NO
ProjectA	3388	Houston	1
ProjectB	1945	Salt Lake City	3
ProjectC	6688	Houston	5
ProjectD	2423	Bellaire	4
ProjectE	7745	Sugarland	5
ProjectF	1566	Salt Lake City	3
ProjectG	1234	New York	2
ProjectH	3467	Stafford	4
ProjectI	4345	Chicago	1
ProjectJ	2212	San Francisco	2

//FOR TABLE EMPLOYEE
 INSERT INTO EMPLOYEEI_20BCD7171VALUES('Doug', 'E', 'Gilbert', 554433221, '09-JUN-60', '11 S 59 E, Salt Lake City, UT', 'M', 80000, NULL , 3);
INSERT INTO EMPLOYEEI_20BCD7171VALUES('Joyce', NULL, 'PAN', 543216789, '07-FEB-78', '35 S 18 E, Salt Lake City, UT', 'F', 70000, NULL, 2);
INSERT INTO EMPLOYEEI_20BCD7171VALUES('Frankin', 'T', 'Wong', 333445555, '08-DEC-45', '638 Voss, Houston, TX', 'M', 40000, 554433221, 5);
INSERT INTO EMPLOYEEI_20BCD7171VALUES('Jennifer', 'S', 'Wallace', 987654321, '20-JUN-31', '291 Berry, Bellaire, TX', 'F', 43000, 554433221, 4);
INSERT INTO EMPLOYEEI_20BCD7171 VALUES('Johny', 'B', 'Smith', 123456789, '09-JAN-55', '731 Fondren, Houston, TX', 'M', 30000, 333445555, 5);
INSERT INTO EMPLOYEEI_20BCD7171 VALUES('Ramesh', 'K', 'Narayan', 666884444, '15-SEP-52', '975 Fire Oak, Humble, TX', 'M', 38000, 333445555, 5);
INSERT INTO EMPLOYEEI_20BCD7171VALUES('Joyce', 'A', 'English', 453453453

INSERT INTO EMPLOYEEI_20BCD7171VALUES('James', 'E', 'Borg', 888665555, '10-NOV-27', '450 Stone, Houston, TX', 'M', 55000, 543216789, 1);
INSERT INTO EMPLOYEEI_20BCD7171VALUES('Alicia', 'J', 'Zelaya', 999887777, '19-JUL-58', '3321 Castle, Spring, TX', 'F', 25000, 987654321, 4);
INSERT INTO EMPLOYEEI_20BCD7171VALUES('Ahmad', 'V', 'Jabbar', 987987987, '29-MAR59', '980 Dallas, Houston, TX', 'M', 25000, 987654321, 4);

//FOR TABLE DEPARTMENT

INSERT INTO DEPARTMENTS_20BCD7171VALUES('Administration', 2, 543216789, '04-JAN-99');

INSERT INTO DEPARTMENTS_20BCD7171VALUES('Headquarter', 3, 554433221, '22-SEP-55');

INSERT INTO DEPARTMENTS_20BCD7171VALUES('Finance', 4, 987654321, '01-JAN-85');

INSERT INTO DEPARTMENTS_20BCD7171VALUES('Research', 5, 333445555, '22-MAY-78');
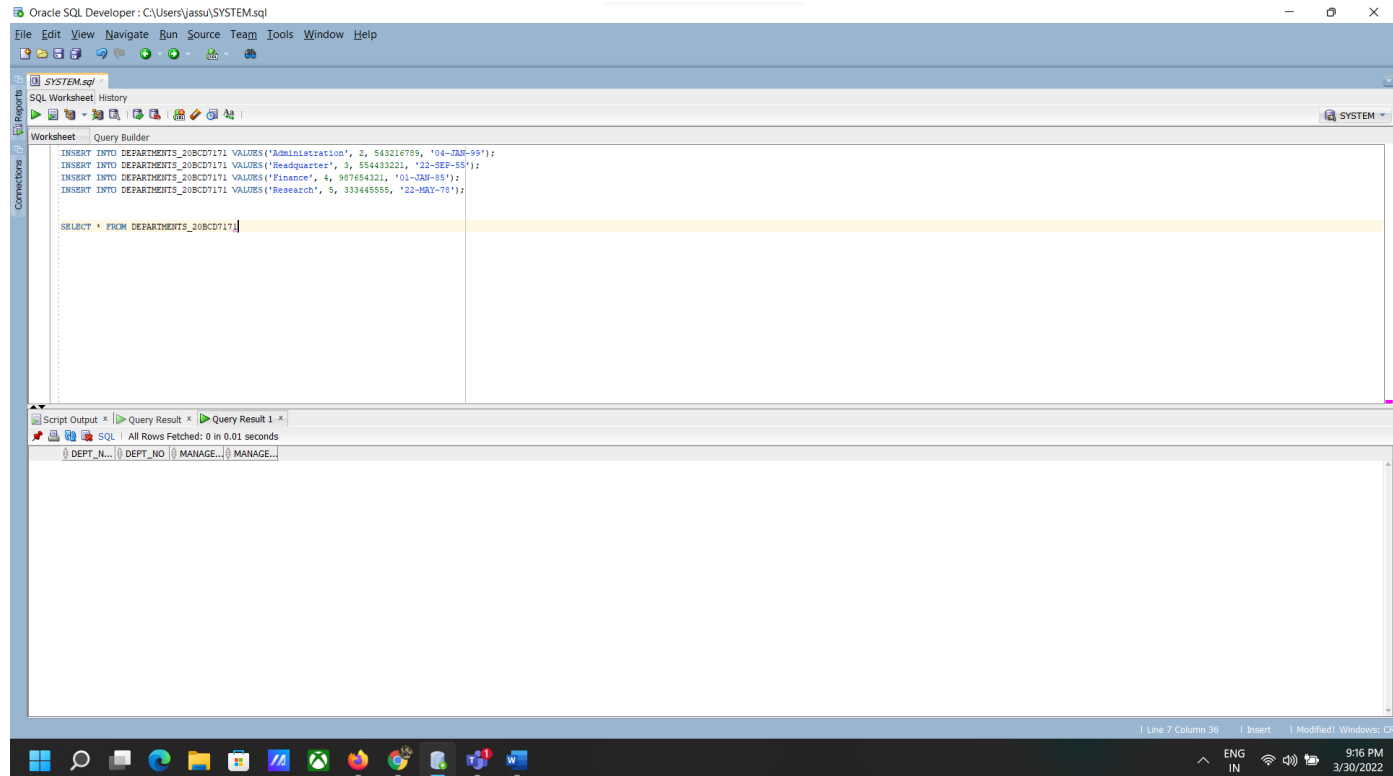
//FOR TABLE PROJECT

INSERT INTO PROJECTS_20BCD7171 VALUES('ProjectA', 3388, 'Houston', 1);

INSERT INTO PROJECTS_20BCD7171 VALUES('ProjectB', 1945, 'Salt Lake City', 3);

INSERT INTO PROJECTS_20BCD7171 VALUES('ProjectC', 6688, 'Houston', 5);

INSERT INTO PROJECTS_20BCD7171 VALUES('ProjectD', 2423, 'Bellaire', 4);

INSERT INTO PROJECTS_20BCD7171 VALUES('ProjectE', 7745, 'Sugarland', 5);

INSERT INTO PROJECTS_20BCD7171 VALUES('ProjectF', 1566, 'Salt Lake City', 3);

INSERT INTO PROJECTS_20BCD7171 VALUES('ProjectG', 1234, 'New York', 2);

INSERT INTO PROJECTS_20BCD7171 VALUES('ProjectH', 3467, 'Stafford', 4);

INSERT INTO PROJECTS_20BCD7171 VALUES('ProjectI', 4345, 'Chicago', 1);

INSERT INTO PROJECTS_20BCD7171 VALUES('ProjectJ', 2212, 'San Francisco', 2);
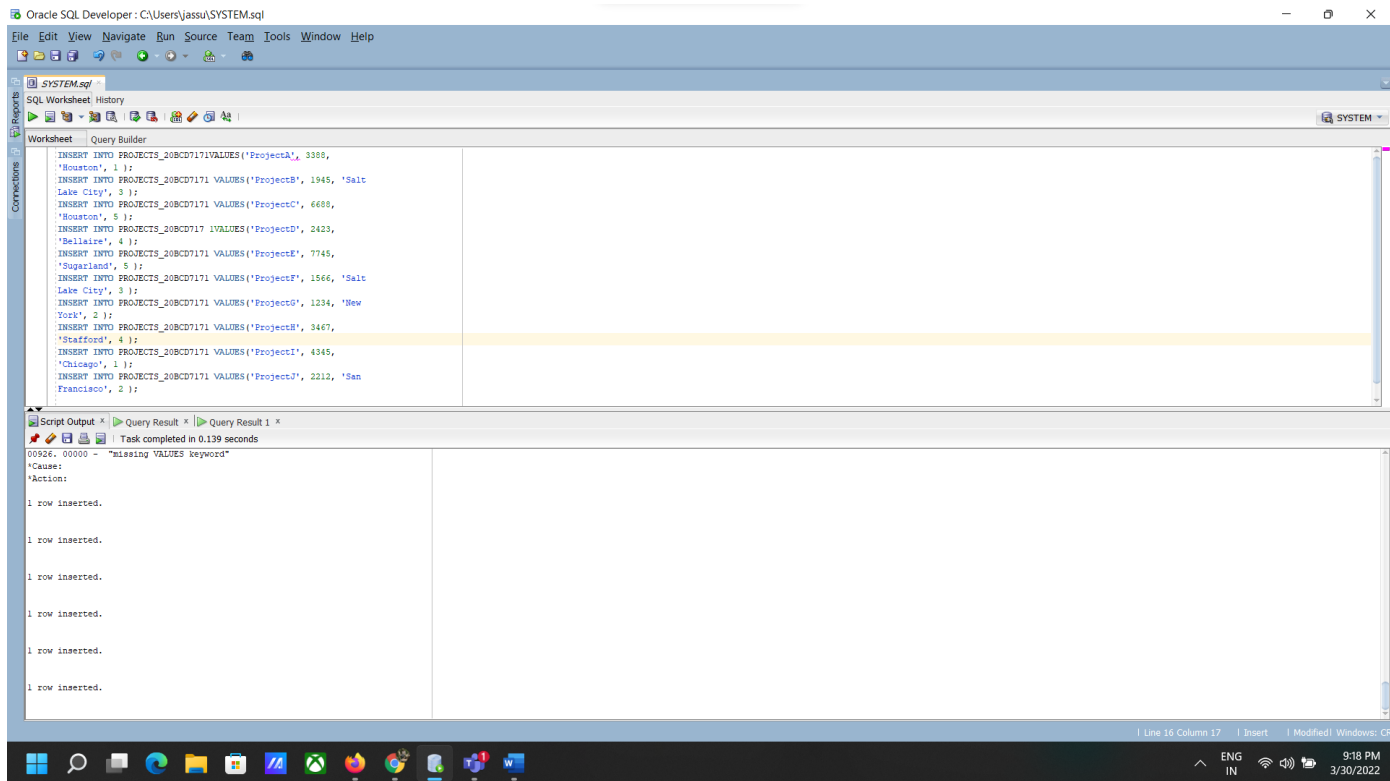
3. Retrieve all the employees' information who are working in department number 1.

SELECT * FROM EMPLOYEEI_20BCD7171 WHERE DEPARTMENT_NUMBER=1;
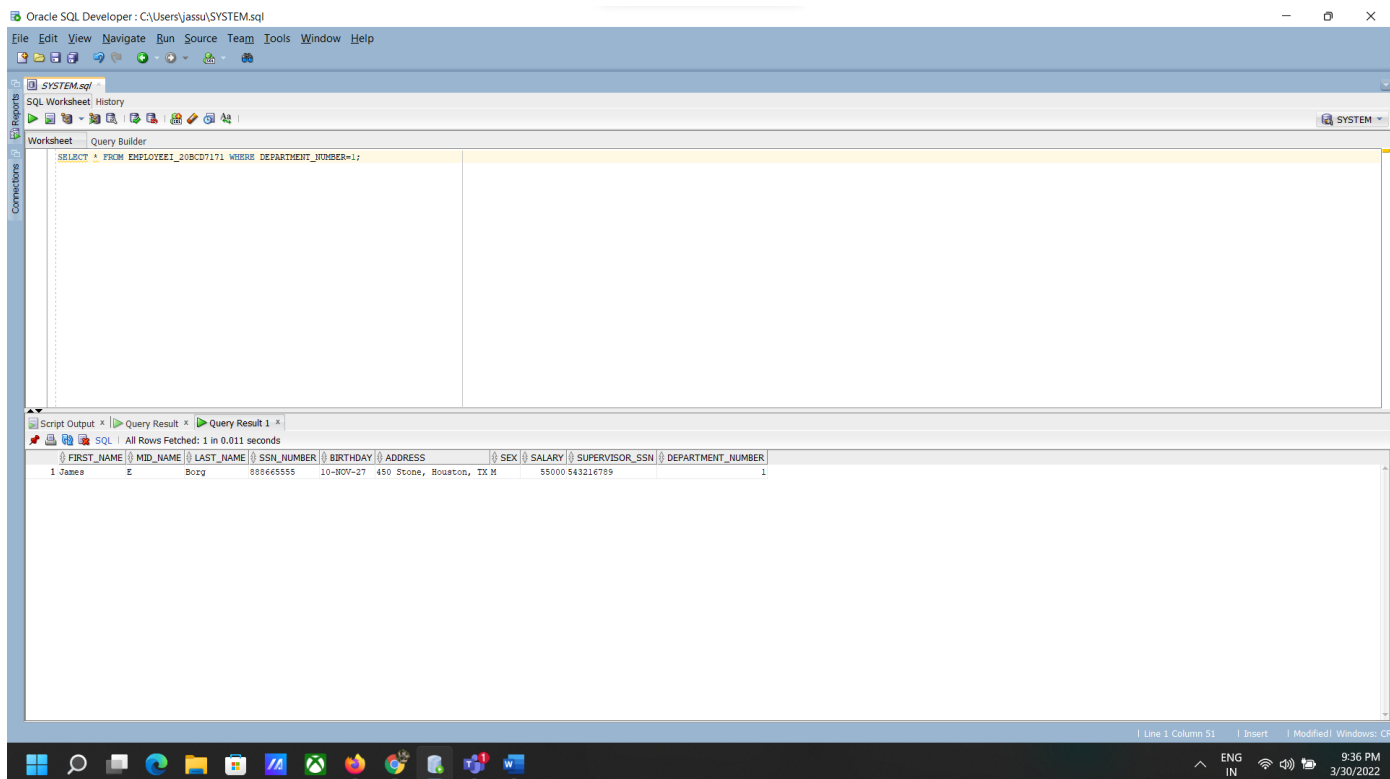
4. Get Employee name along with his SSN and Supervisor SSN

SELECT FIRST_NAME, MID_NAME, LAST_NAME, SSN_NUMBER, SUPERVISOR_SSN FROM EMPLOYEEI_20BCD7171;

5. Retrieve the employee names whose bdate is '29-MAR-1959'.

SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEEI_20BCD7171 WHERE BIRTHDAY='29-MAR-1959';

6. Get salaries of the employees without duplications.

SELECT DISTINCT SALARY FROM EMPLOYEEI_20BCD7171;

7. Retrieve the MgrSSN, MgrStartDate of the manager of 'Research' department

SELECT MANAGERSSN, MANAGESTARTDATE FROM DEPARTMENTS_20BCD7171 WHERE DEPT_NAME='Research';

8. Change the department number of an employee having fname as 'Joyce' to 3.

UPDATE EMPLOYEEI_20BCD7171 SET DEPARTMENT_NUMBER=3 WHERE FIRST_NAME='Joyce';
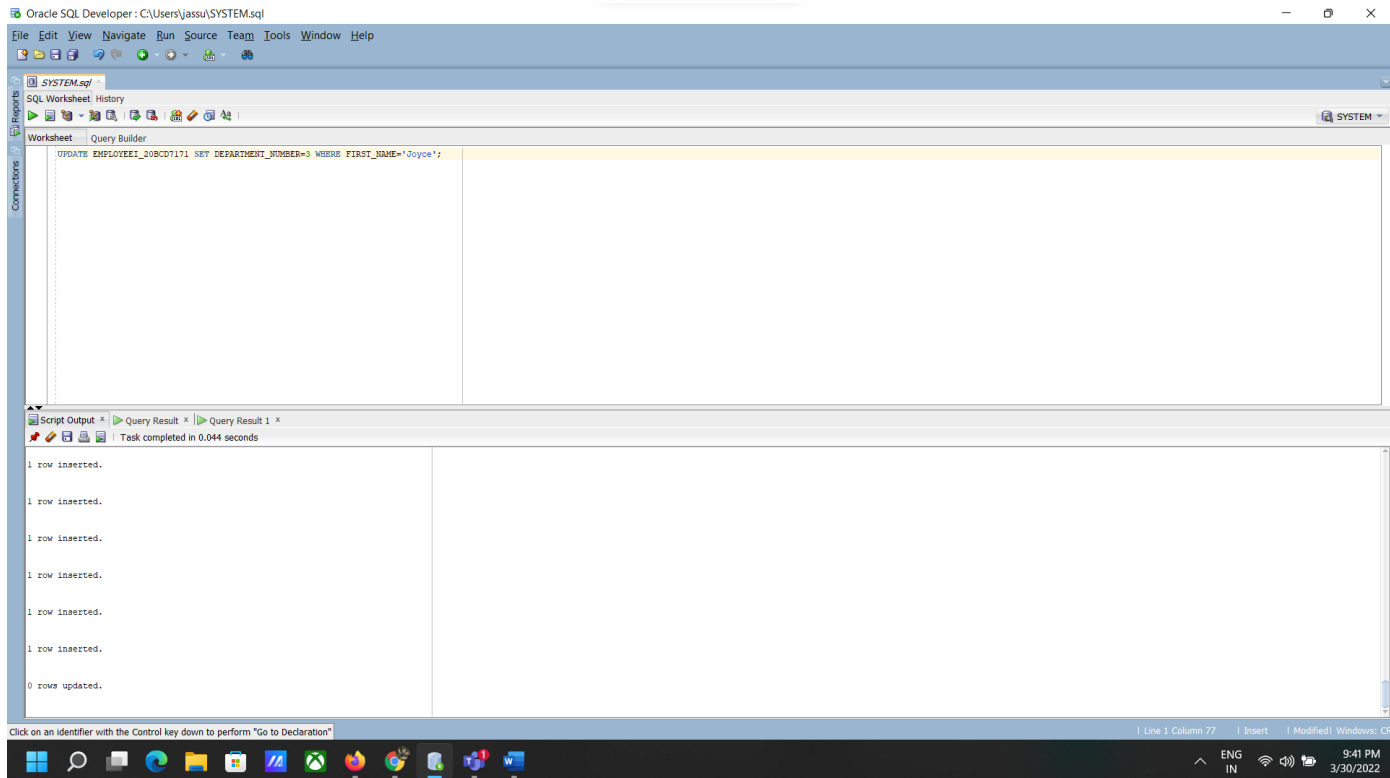
9. Alter Table department add column ContactNo of NUMBER data type and insert values into this column only.

ALTER TABLE DEPARTMENTS_20BCD7171 ADD CONTACT_NUMBER NUMBER(10);
UPDATE DEPARTMENTS_20BCD7171 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=2;
UPDATE DEPARTMENTS_20BCD7171 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=3;
UPDATE DEPARTMENTS_20BCD7171 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=4;
UPDATE DEPARTMENTS_20BCD7171 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=5;
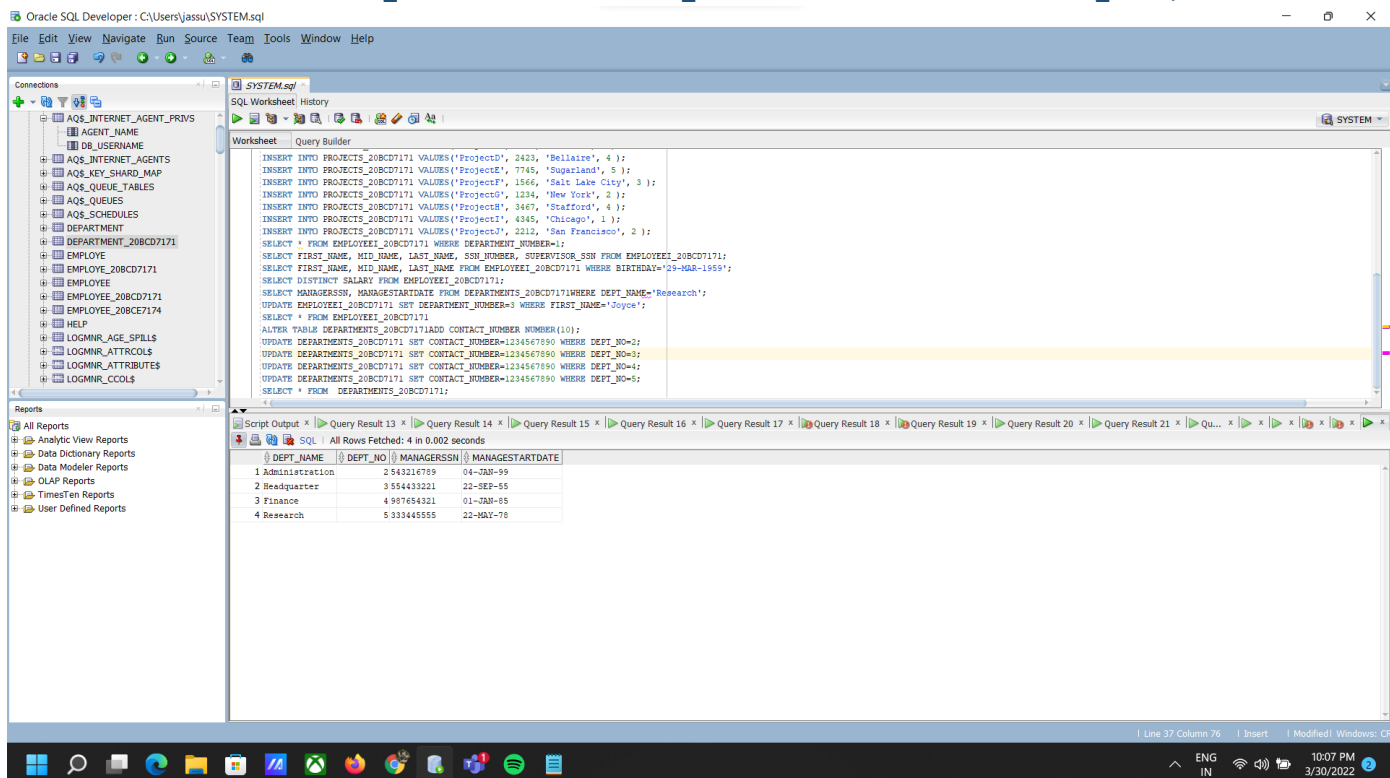
10. Change table department by modifying the size of field ContactNo.

SELECT * FROM DEPARTMENTS_20BCD7171;

ALTER TABLE DEPARTMENTS_20BCD7171 MODIFY CONTACT_NUMBER NUMBER(11);

11.Modify the field name ContactNo of departments table to MobileNo.

ALTER TABLE DEPARTMENTS_20BCD7171 RENAME COLUMN CONTACT_NUMBER TO MOBILENO;

SELECT * FROM DEPARTMENTS_20BCD7171;

12. Alter Table department by removing column MobileNo.

ALTER TABLE DEPARTMENTS_20BCD7171 DROP COLUMN MobileNo;
SELECT * FROM DEPARTMENTS_20BCD7171;

13. Create a table COPYOFDEPT as a copy of the table DEPARTMENT.

CREATE TABLE COPY OF DEPT_20BCD7171 AS SELECT * FROM DEPARTMENTS_20BCD7171;

14.Remove the rows from COPYOFDEPT table with department number as 5.

DELETE FROM COPYOFDEPTWHERE DEPT_NO=5;

SELECT * FROM DEPARTMENTS_20BCD7171;

15.   Delete all rows from COPYOFDEPT.

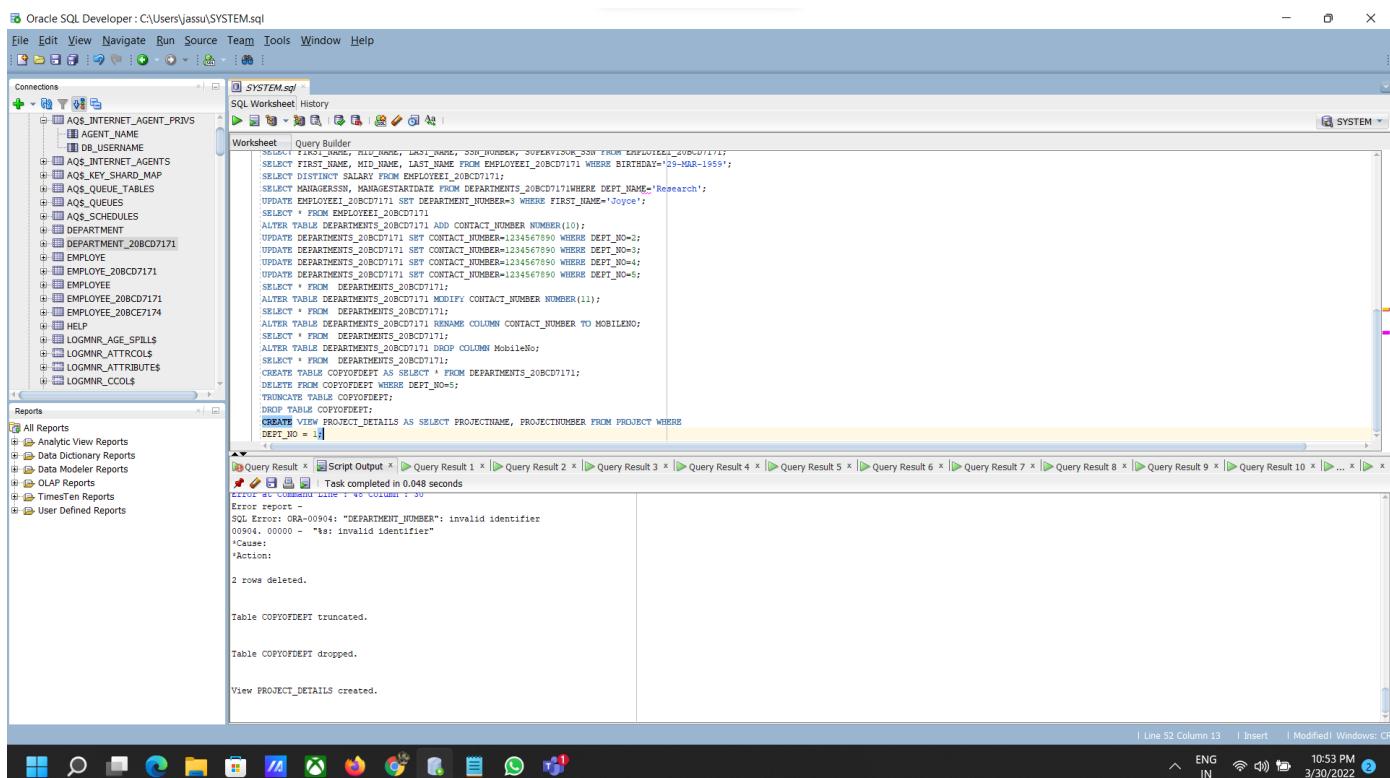**TRUNCATE TABLE COPYOFDEPT;**

SELECT * FROM COPYOFDEPT ;

16.   Remove COPYOFDEPT table.

DROP TABLE COPYOFDEPT;
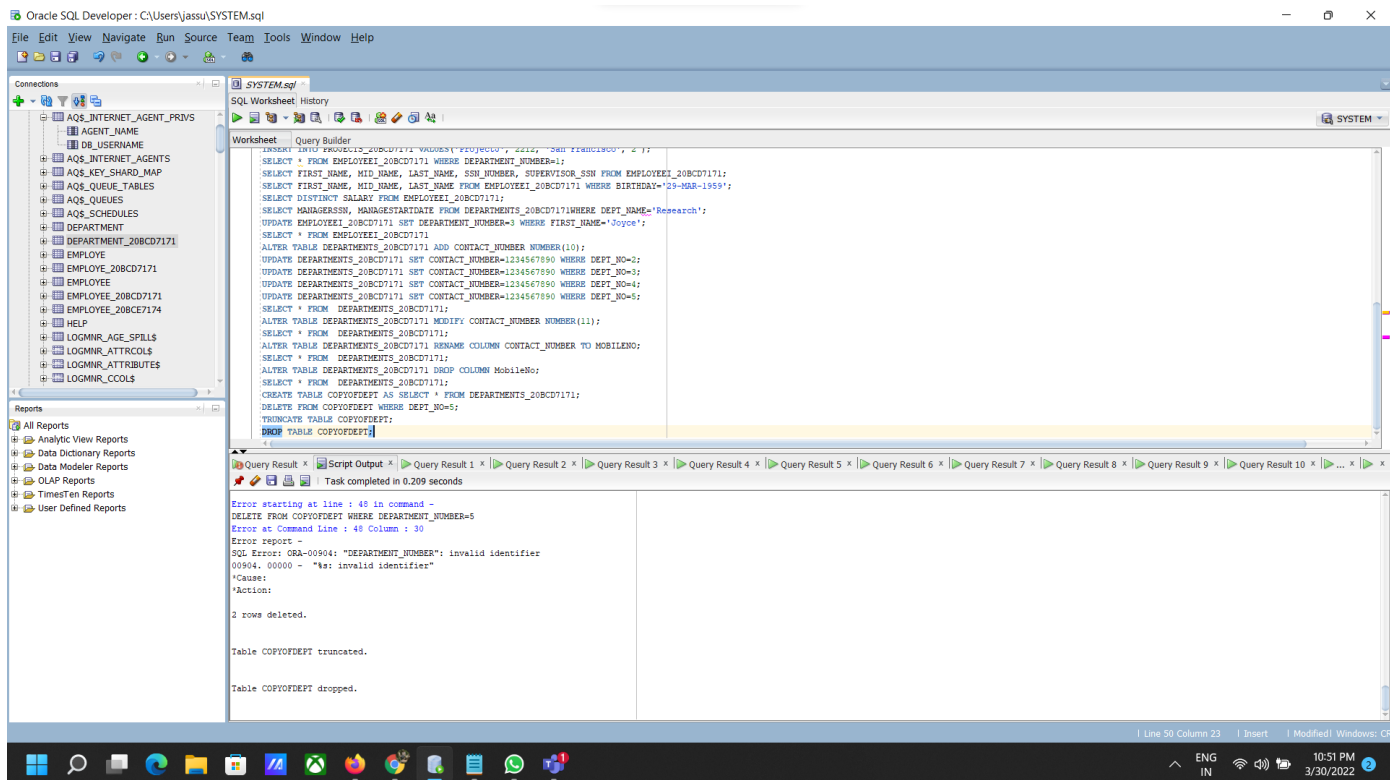
17.   Create a View that selects the name and number of the projects handled by department number 1.

CREATE VIEW PROJECT_DETAILS_20BCD7171 AS SELECT PROJECTNAME, PROJECTNUMBER FROM PROJECTS_20BCD7171 WHERE DEPT_NO= 1;

18.   Change name of Table Department to DEPT.

RENAME DEPARTMENTS_20BCD7171 TO DEPT_20BCD7111;
SELECT * FROM DEPT_20BCD7111 ;