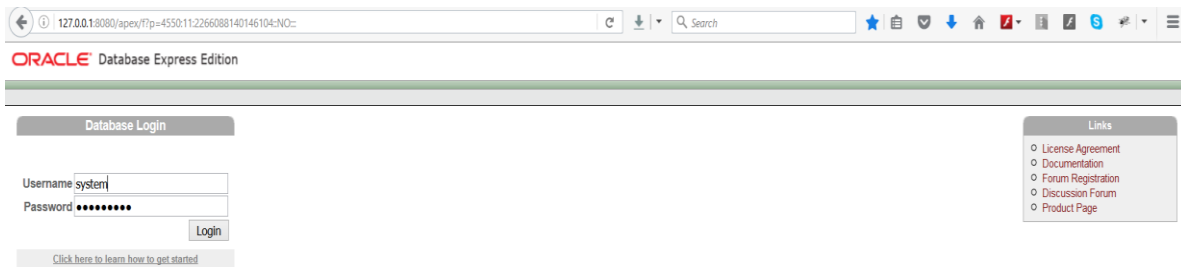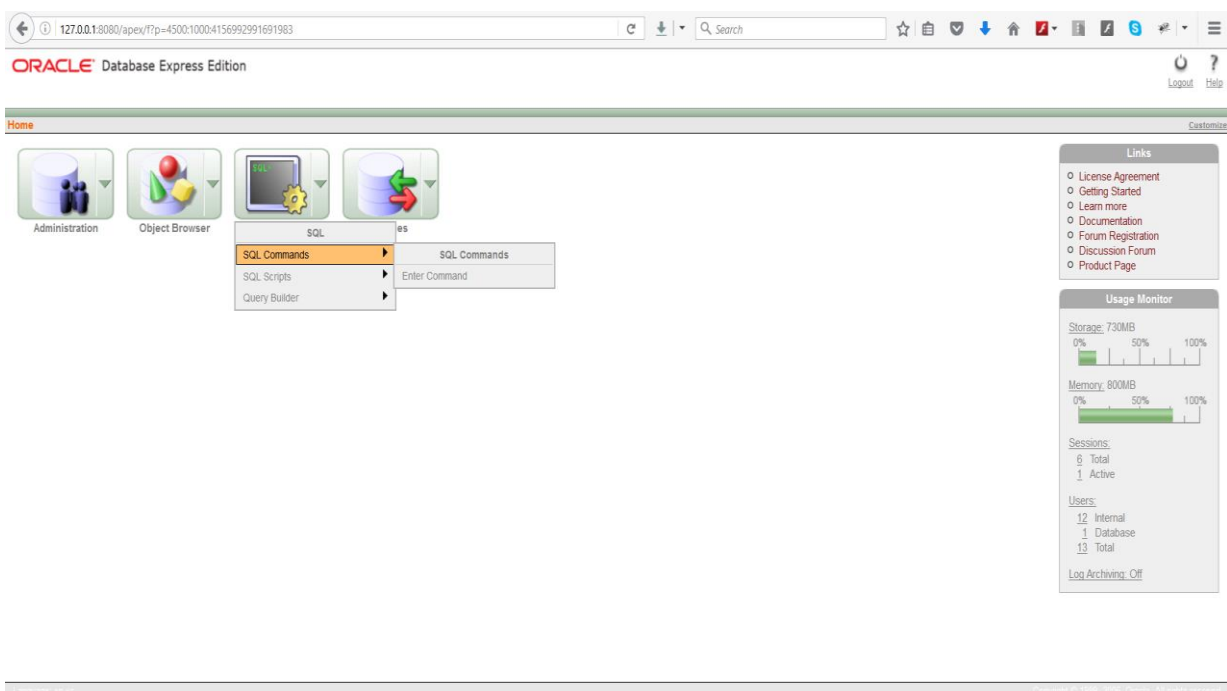# ORACLE 10g Practical 1(Table creation)

1. Click on start
2. Click on Program
3. Click on Oracle Database 10g Express Edition
4. Click Go to Database Home Page
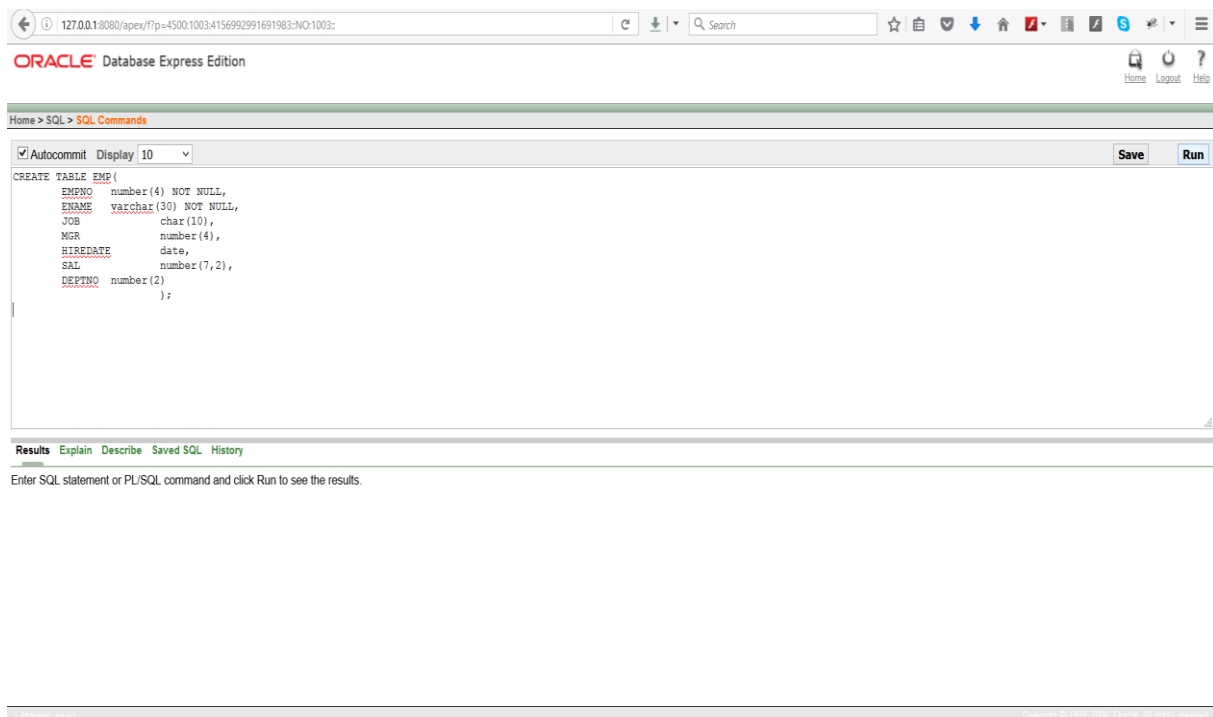
This will take you to the following:

5. Enter your username and password

6. Click on Login
7. Click on SQL --→ SQL Commands -→ Enter the following SQL Commands and click on the button Run

8. Create and populate the following tables:

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	DEPTNO
7369	SMITH	CLERK	7902	17-Dec-80	800	20
7499	ALLEN	SALESMAN	7698	20-Feb-81	1600	30
7521	WARD	SALESMAN	7698	22-Feb-81	1250	30
7698	BLAKE	MANAGER		1-May-81	3850	30
7902	FORD	ANALYST	7566	3-Dec-81	3000	10

Use the following data types to create the table structure:
```
CREATE TABLE EMP(
        EMPNO        number(4) NOT NULL,
        ENAME        varchar(30) NOT NULL,
        JOB          char(10),
        MGR          number(4),
        HIREDATE     date,
        SAL          number(7,2),
        DEPTNO       number(2)
                     );
```

The SQL statement to populate (insert) data into the table is as follows:

(N.B. It is best to write all your coding in a word editing software (Notepad, MS Word), save the file and you can just copy and paste from here into SQLPLUS; It is also easier to modify your coding here rather than doing it directly in SQLPLUS!)

First try these incorrect SQL commands and see for yourself the error displayed by SQLPLUS

INSERT INTO EMP

VALUES (7369, 'SMITH', 'CLERK', 7902, '17-DEC-80', 800, 20)

SQL> INSERT INTO EMP
  2 VALUES (7369, 'SMITH', 'CLERK', 7902, '17-DEC-80', 800, 20)
  3
SQL>

What you missed out here is the semi colon (;) at the end!

INSERT INTO EMP
VALUES (7369, SMITH, 'CLERK', 7902, '17-DEC-80', 800, 20);

SQL> INSERT INTO EMP
  2 VALUES (7369, SMITH, 'CLERK', 7902, '17-DEC-80', 800, 20);
VALUES (7369, SMITH, 'CLERK', 7902, '17-DEC-80', 800, 20)
        *
ERROR at line 2:
ORA-00984: column not allowed here

The correct syntax is as follows:
INSERT INTO EMP VALUES (7369, 'SMITH', 'CLERK', 7902, '17-DEC-80', 800, 20);
SQL> INSERT INTO EMP VALUES (7902, 'FORD', 'ANALYST', 7576, '3-DEC-81', 3000, 10);

1 row created.

Similarly write SQL statements to insert the rest of the data into the EMP table.
(N.B. You can send a series of SQL at one go)

INSERT INTO EMP VALUES (7499, 'ALLEN', 'SALESMAN', 7698, '20-FEB-81', 1600, 30);
INSERT INTO EMP VALUES (7521, 'WARD', 'SALESMAN', 7698, '22-FEB-81', 1250, 30);
INSERT INTO EMP VALUES (7698, 'BLAKE', 'MANAGER', , '1-MAY-81', 3850, 30);
INSERT INTO EMP VALUES (7902, 'FORD', 'ANALYST', 7576, '3-DEC-81', 3000, 10);

You will encounter a problem for the null value for 'Blake'

SQL> INSERT INTO EMP VALUES (7499, 'ALLEN', 'SALESMAN', 7698, '20-FEB-81', 1600, 30)

1 row created.

SQL> INSERT INTO EMP VALUES (7521, 'WARD', 'SALESMAN', 7698, '22-FEB-81', 1250, 30);

1 row created.

SQL> INSERT INTO EMP VALUES (7698, 'BLAKE', 'MANAGER', , '1-MAY-81', 3850, 30);
INSERT INTO EMP VALUES (7698, 'BLAKE', 'MANAGER', , '1-MAY-81', 3850, 30)
                        *
ERROR at line 1:
ORA-00936: missing expression

SQL> INSERT INTO EMP VALUES (7902, 'FORD', 'ANALYST', 7576, '3-DEC-81', 3000, 10);

1 row created.

The correct way to do it is as follows:

INSERT INTO EMP VALUES (7698, 'BLAKE', 'MANAGER','' , '1-MAY-81', 3850, 30);

SQL> INSERT INTO EMP VALUES (7698, 'BLAKE', 'MANAGER','' , '1-MAY-81', 3850, 30);

1 row created.

Finally try:
   1. SELECT * FROM EMP;

SQL> select * from emp;

```
    EMPNO ENAME                JOB           MGR HIREDATE
---------- ---------------------------- ---------- ---------- ---------
       SAL    DEPTNO
---------- ----------
     7369 SMITH                CLERK        7902 17-DEC-80
      800      20

     7499 ALLEN                SALESMAN     7698 20-FEB-81
     1600      30

     7521 WARD                 SALESMAN     7698 22-FEB-81
     1250      30
```

```
    EMPNO ENAME                JOB           MGR HIREDATE
---------- ---------------------------- ---------- ---------- ---------
       SAL    DEPTNO
---------- ----------
     7902 FORD                 ANALYST      7576 03-DEC-81
     3000      10

     7698 BLAKE                MANAGER          01-MAY-81
     3850      30
```
   2. SELECT ENAME FROM EMP;

SQL> select ename from emp;

```
ENAME
-----------------------------
SMITH
ALLEN
WARD
FORD
BLAKE
```

   3. SELECT ENAME,JOB FROM EMP;

SQL> select ename, job from emp;

```
ENAME              JOB
------------------------------ ----------
SMITH              CLERK
ALLEN               SALESMAN
WARD                SALESMAN
FORD               ANALYST
BLAKE               MANAGER
```

ENAME   JOB

------------------------------ ----------

SMITH   CLERK