

INTRODUCTION TO ORACLE

- ✚ Oracle Database (commonly referred to as Oracle DBMS, Oracle Autonomous Database, or simply as Oracle) is a multi-model database management system produced and marketed by Oracle Corporation.
- ✚ It is a database commonly used for running online transaction processing (OLTP), data warehousing (DW) and mixed (OLTP & DW) database workloads.
- ✚ Oracle Database is available by several service providers on-prem, on-cloud, or as a hybrid cloud installation. It may be run on third party servers as well as on Oracle hardware.
- ✚ **MySQL Database** is a fully-managed database service, powered by the integrated Heat Wave in-memory query accelerator. It is the only cloud-native database service that combines transactions, analytics, and machine learning services into MySQL Database, delivering real-time, secure analytics without the complexity, latency, and cost of ETL duplication.
- ✚ It is developed, managed, and supported by the MySQL team in Oracle.
- ✚ MySQL Database Service is available on Oracle Cloud Infrastructure, Amazon Web Service, and Oracle Database Service in Azure (ODSA).

EXPERIMENTS

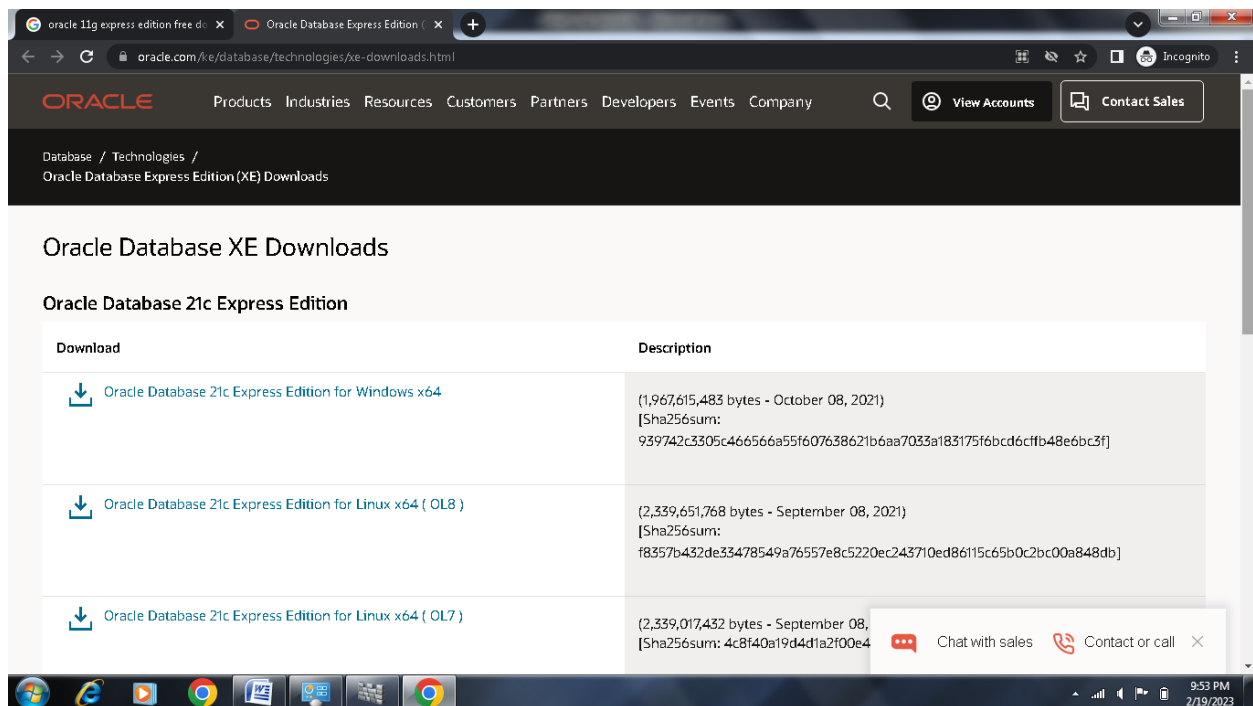
1.AIM OF THE EXPERIMENT: To Perform Installation of Oracle 11g Software with neat steps.




DESCRIPTION : Oracle was the first database product to run on a huge variety of hardware from micro to mainframe, giving it a major competitive advantage in the 1980s. Version 11g of the Oracle Database, which included built-in testing for changes, the capability of viewing tables back in time, superior compression of all types of data and enhanced disaster recovery functions. The "g" stands for "grid computing," which supports clusters of servers that are treated as a single unit.

Steps for Installation of Oracle

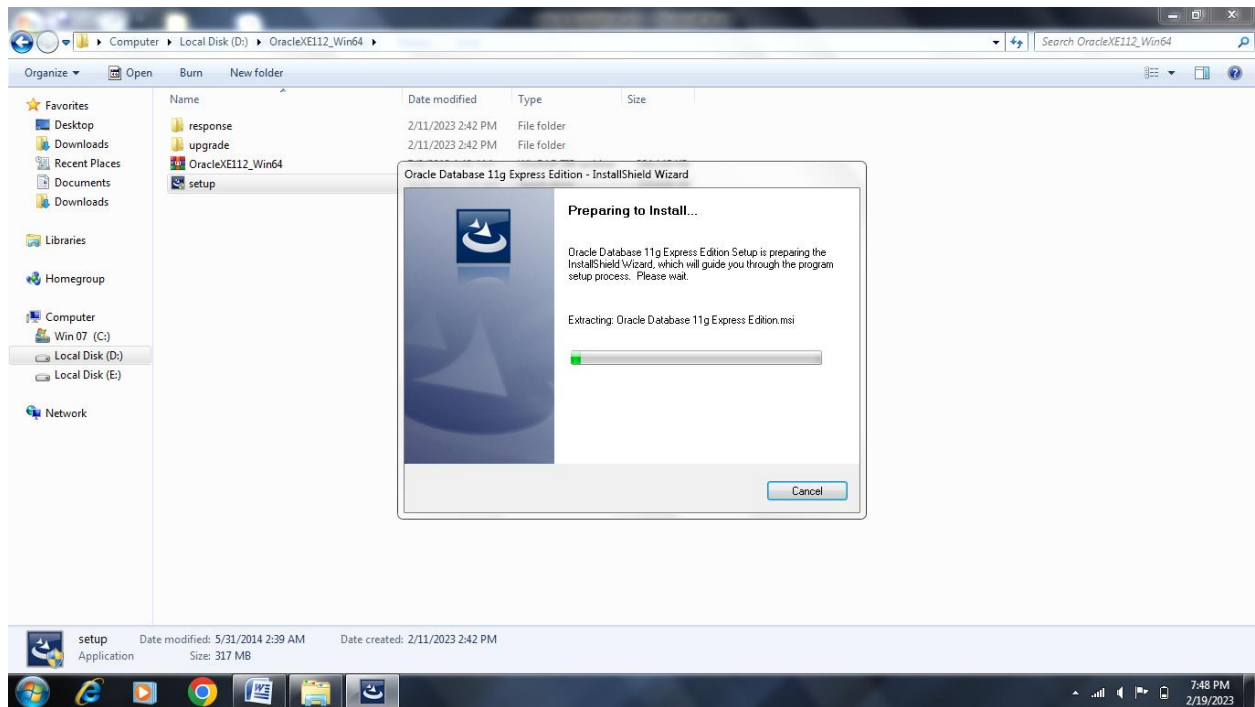
Step 1: Download Oracle Database from

<https://www.oracle.com/ke/database/technologies/xe-downloads.html>

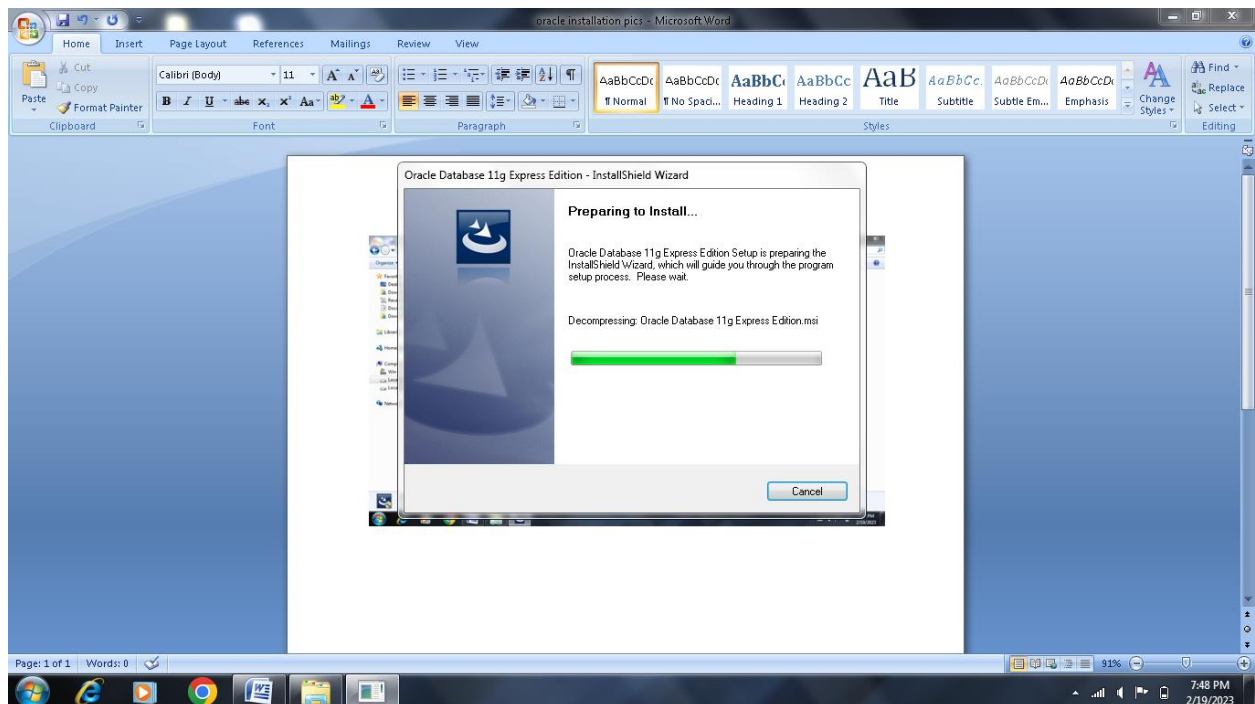


Download	Description
 Oracle Database 21c Express Edition for Windows x64	(1,967,615,483 bytes - October 08, 2021) [Sha256sum: 939742c3305c466566a55f607638621b6aa7033a183175f6bcd6cffb48e6bc3f]
 Oracle Database 21c Express Edition for Linux x64 (OL8)	(2,339,651,768 bytes - September 08, 2021) [Sha256sum: f8357b432de33478549a76557e8c5220ec243710ed86115c65b0c2bc00a848db]
 Oracle Database 21c Express Edition for Linux x64 (OL7)	(2,339,017,432 bytes - September 08, 2021) [Sha256sum: 4c8f40e19d4d1a2f00e4...]

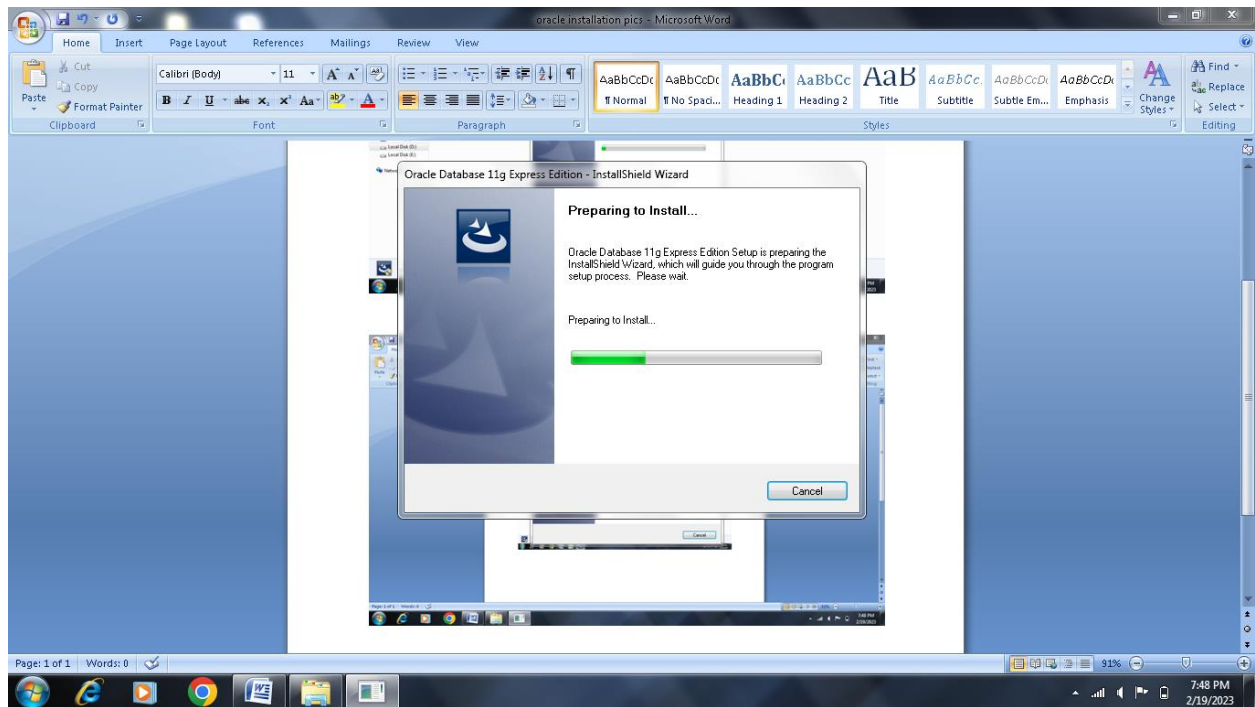
Step 2: Start installing the software into the computer



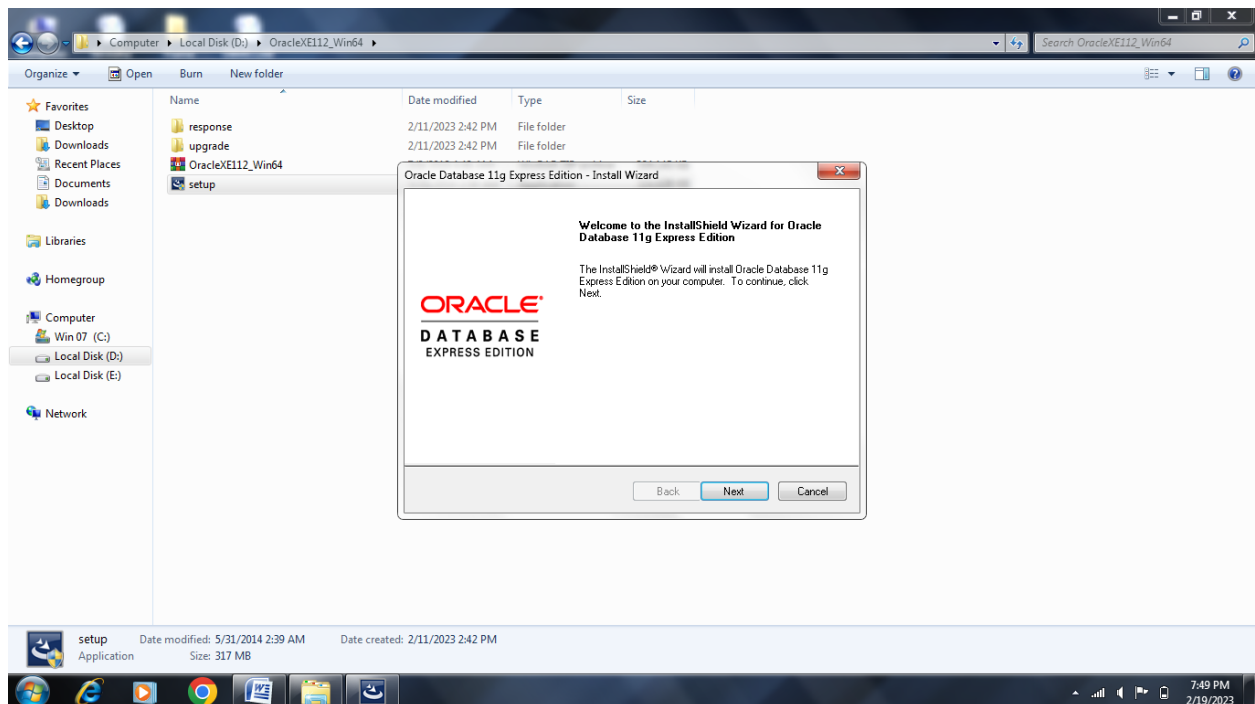
Step 3: Decompress the Oracle database



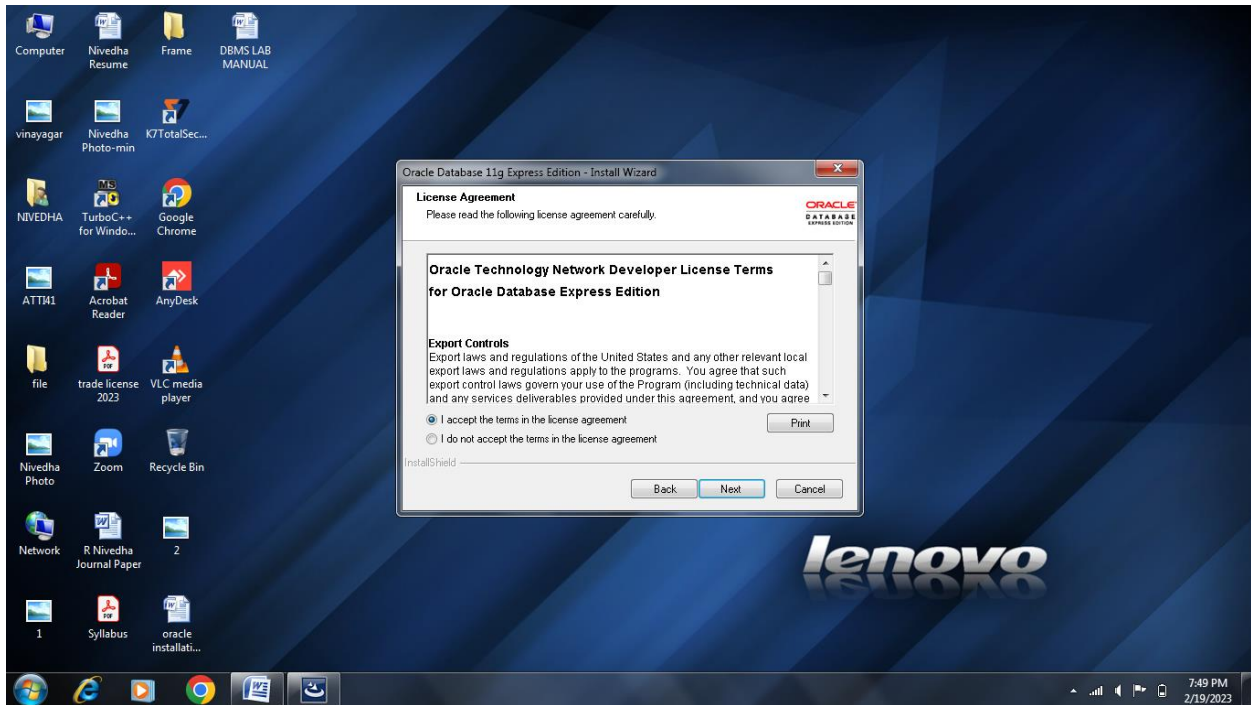
Step 4: A Install Shield Wizard is going to be created



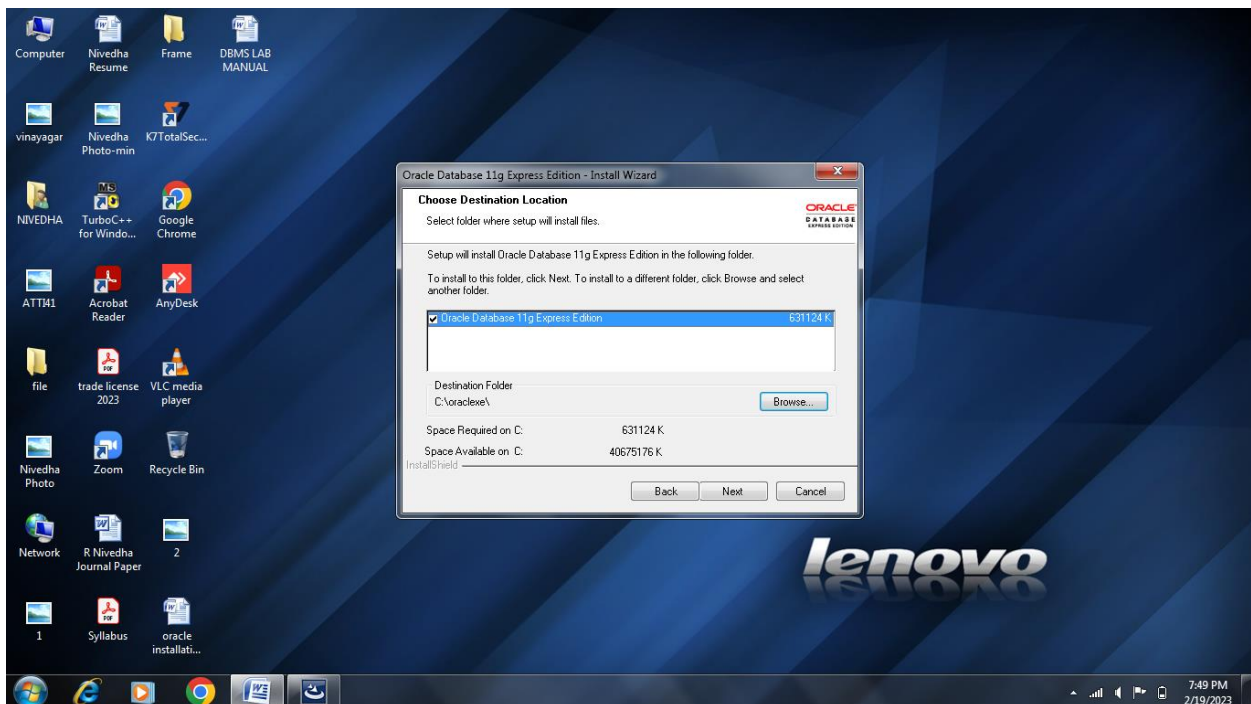
Step 5: Click on Next Button



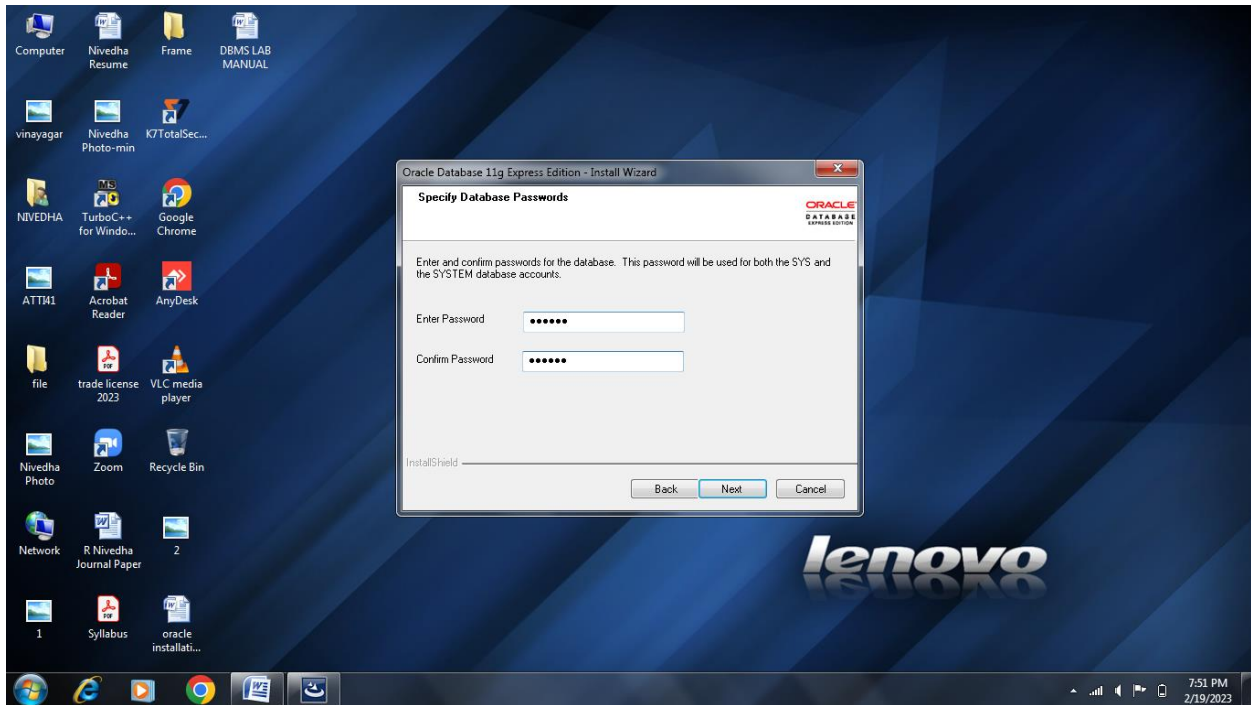
Step 6: Accept the License Agreement by clicking on the dialog box



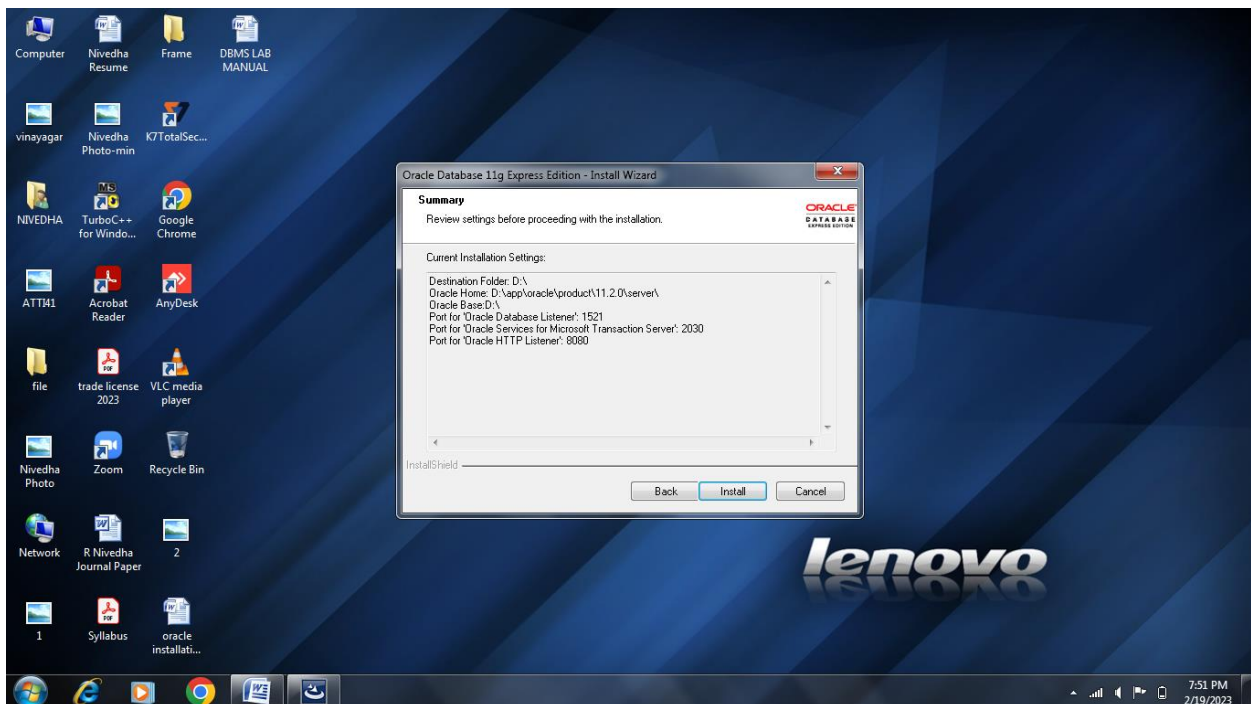
Step 7: Disk Storage space has been allotted in either c drive or d drive.



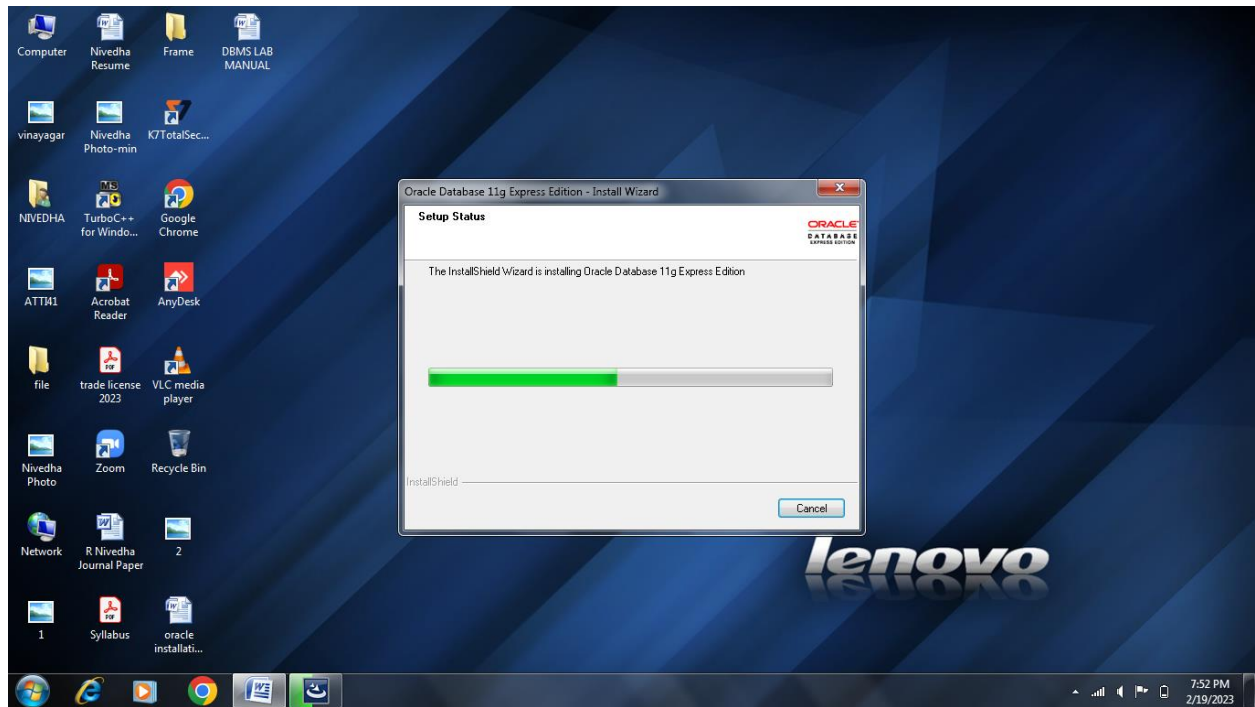
Step 8: Give password as oracle for installation proceeding.



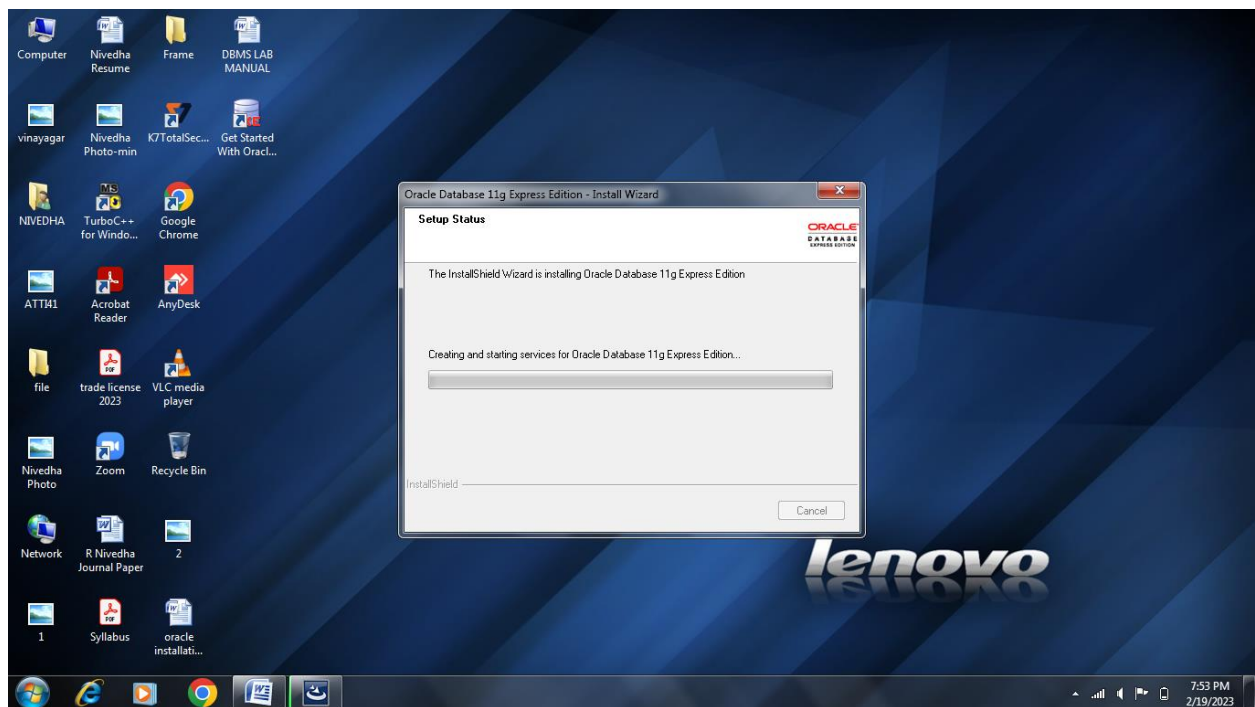
Step 9: Click on the install button



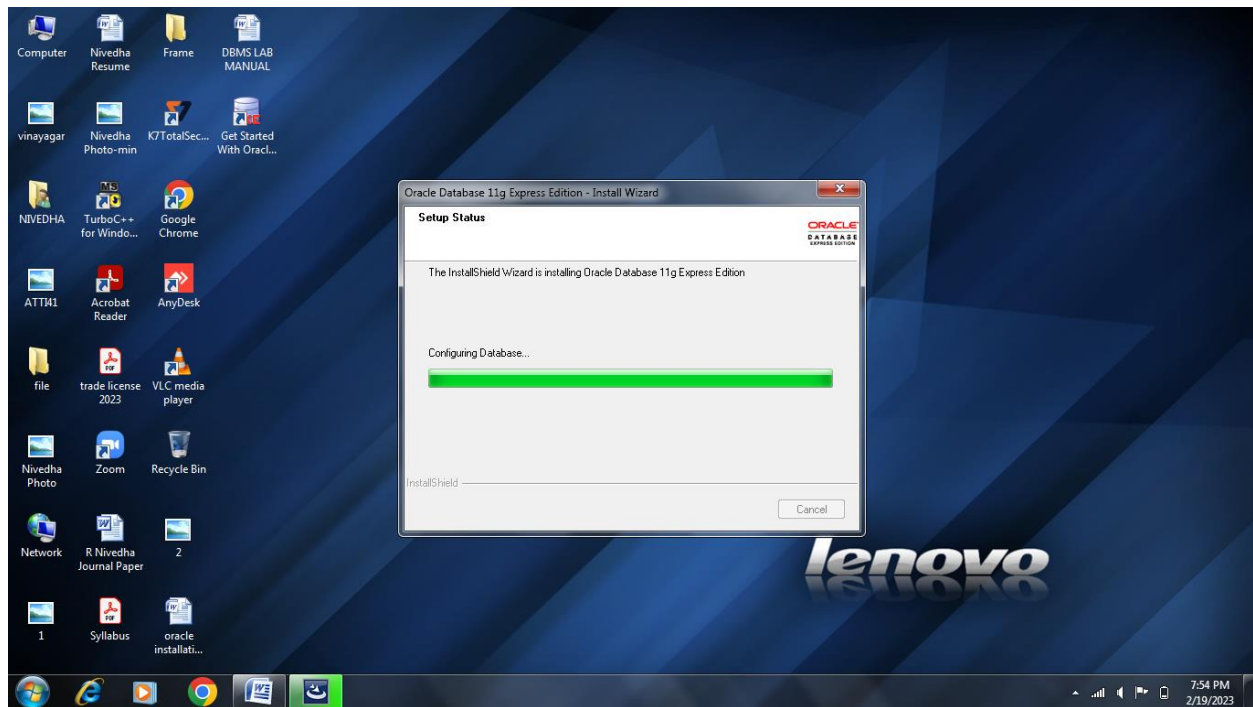
Step 10: Install Wizard is installing oracle software.



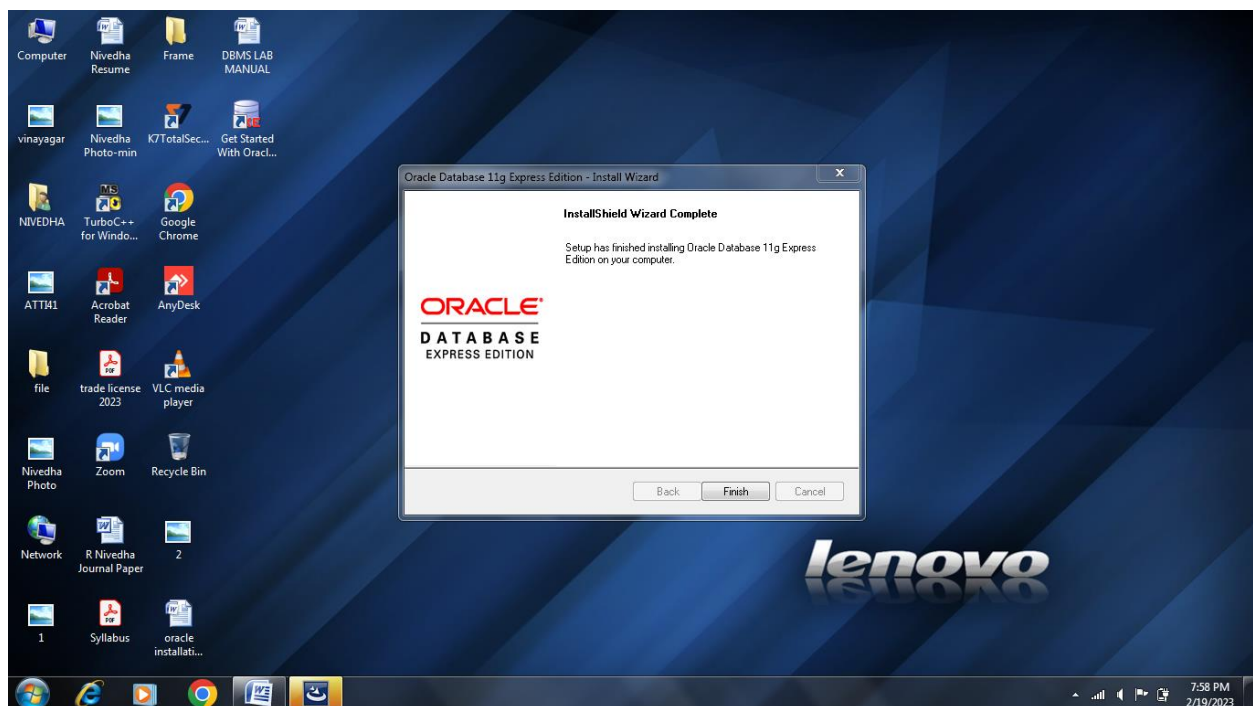
Step 11: The data base Services is created and started.



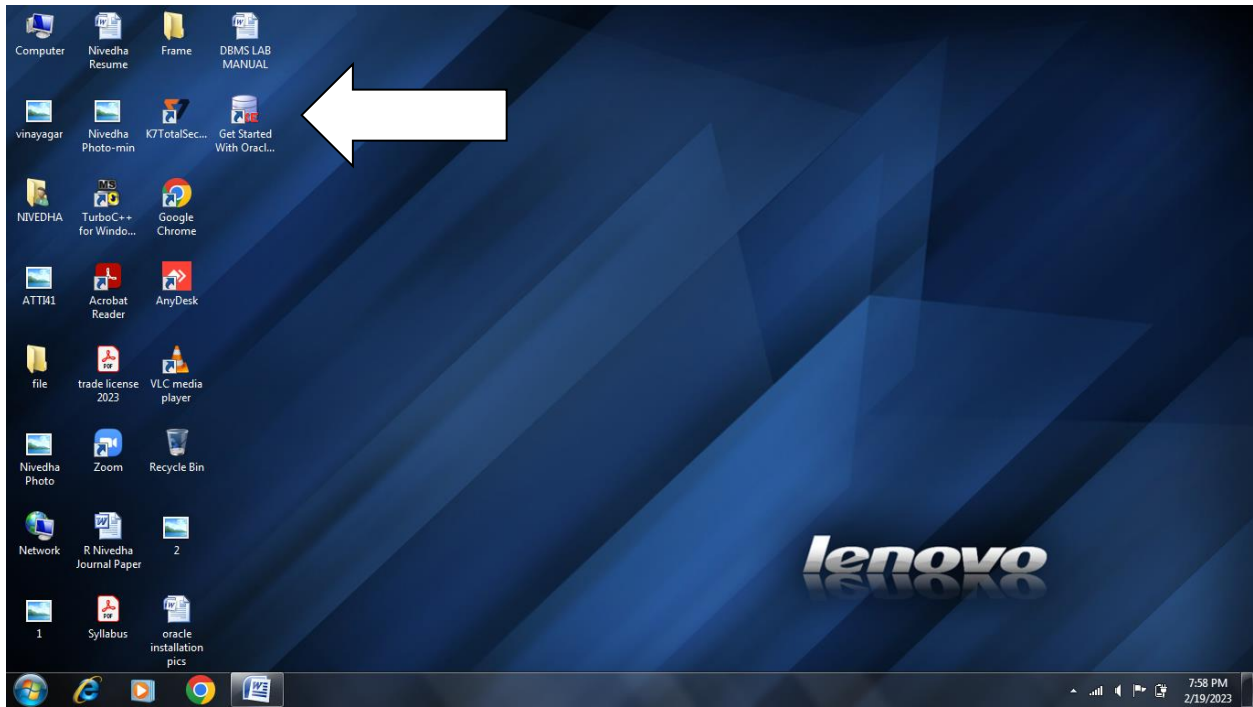
Step 12: Perform Configuration of Data base.



Step 13: Click on finish button



Step 14: An icon is created on desktop stating oracle 11g software



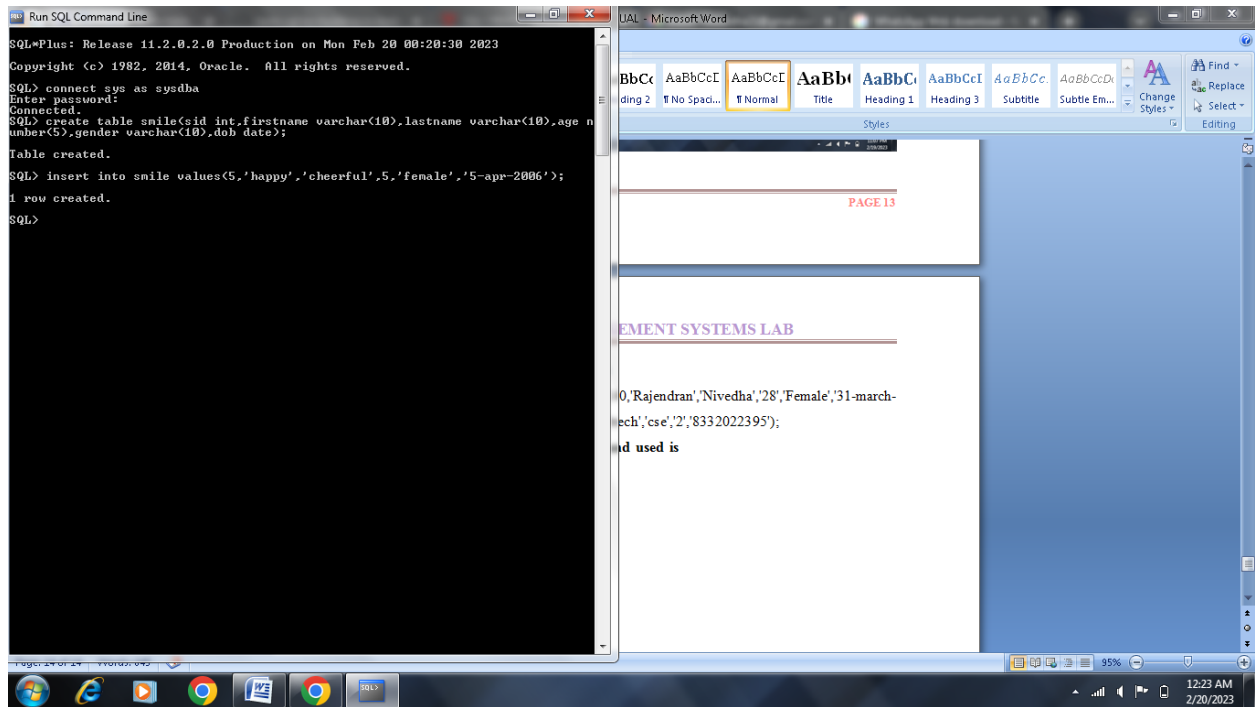
Result: Hence The installation of oracle 11g software has been executed successfully.

2.AIM OF THE EXPERIMENT: To Perform creation of tables in SQL for table names smile, student, employee, customer, branch with certain fields.

DESCRIPTION : SQL stands for Structured Query Language. SQL lets you access and manipulate databases. SQL became a standard of the American National Standards Institute (ANSI) in 1986, and of the International Organization for Standardization (ISO) in 1987.

SOURCE CODE:

Create table name as smile with fields sid, first name, last name, age, gender, dob(date of birth)

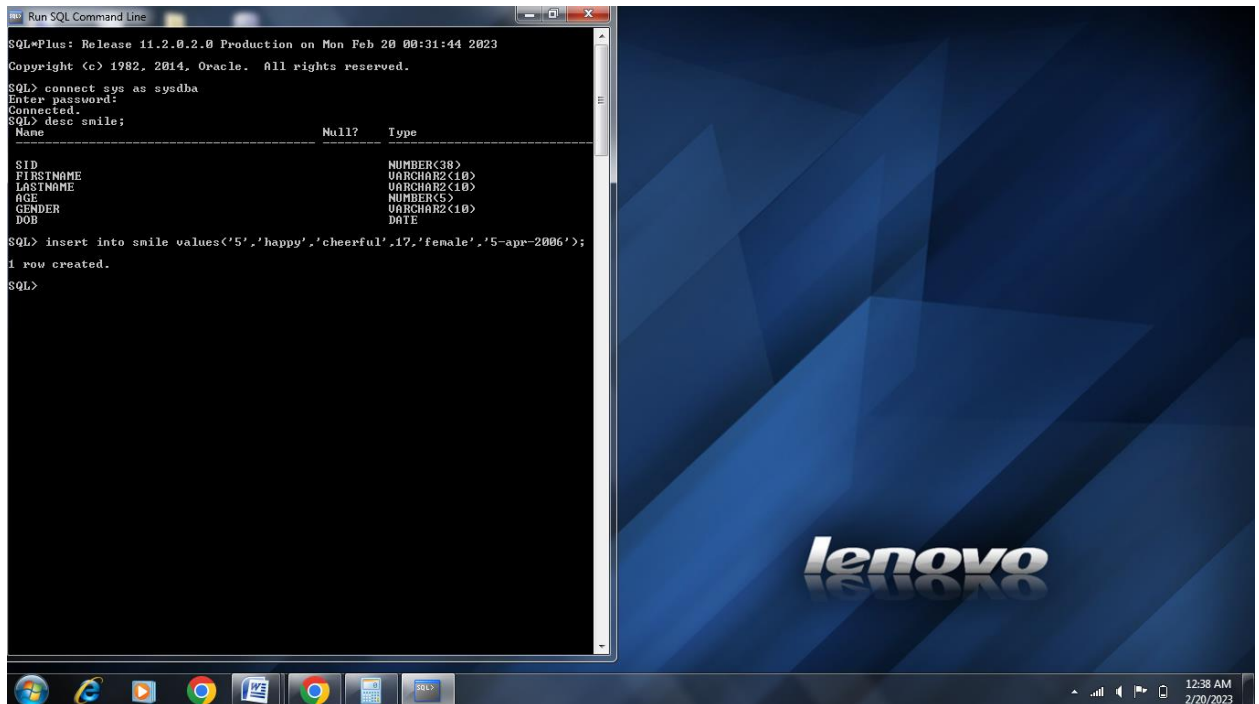


Now, to check whether table smile is created or not the command used is

SQL>desc smile;

Now, Insert the values into smile as

SQL>insert into smile values(5,'happy','cheerful',17,'female','5-apr-2006');





To see the Output & display of data , the command used is

Select * from smile;

```
SQL*Plus: Release 11.2.0.2.0 Production on Mon Feb 20 00:31:44 2023
Copyright (c) 1982, 2014, Oracle. All rights reserved.

SQL> connect sys as sysdba
Enter password:
Connected.
SQL> desc smile;
   Name      Null?    Type
-----
SID          NUMBER(38)
FIRSTNAME    VARCHAR2(10)
LASTNAME     VARCHAR2(10)
AGE          NUMBER(5)
GENDER       VARCHAR2(10)
DOB          DATE

SQL> insert into smile values('5','happy','cheerful',17,'female','5-apr-2006');
1 row created.

SQL> select * from smile;
   SID FIRSTNAME LASTNAME    AGE GENDER DOB
-----
     5    happy    cheerful     17 female 05-APR-06

SQL>
```

Now insert in the same way 5 different records for table smile and write the value.

```
SQL*Plus: Release 11.2.0.2.0 Production on Mon Feb 20 00:31:44 2023
Copyright (c) 1982, 2014, Oracle. All rights reserved.

SQL> connect sys as sysdba
Enter password:
Connected.
SQL> desc smile;
   Name      Null?    Type
-----
SID          NUMBER(38)
FIRSTNAME    VARCHAR2(10)
LASTNAME     VARCHAR2(10)
AGE          NUMBER(5)
GENDER       VARCHAR2(10)
DOB          DATE

SQL> insert into smile values('5','happy','cheerful',17,'female','5-apr-2006');
1 row created.

SQL> select * from smile;
   SID FIRSTNAME LASTNAME    AGE GENDER DOB
-----
     5    happy    cheerful     17 female 05-APR-06

SQL> insert into smile values('6','joy','laugh',18,'male','6-may-2007');
1 row created.

SQL> insert into smile values('7','tender','pleased',19,'female','7-jun-2008');
ERROR:
ORA-01756: quoted string not properly terminated

SQL> insert into smile values('7','tender','pleased',19,'female','7-jun-2008');
1 row created.

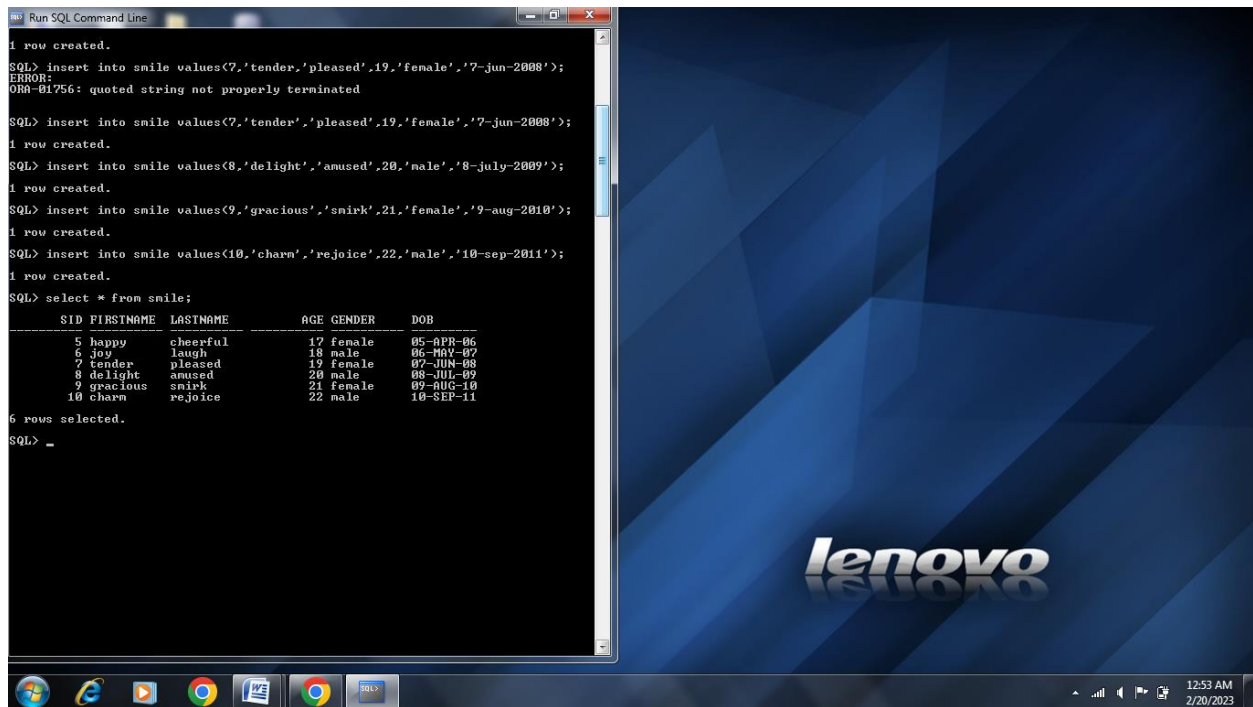
SQL> insert into smile values('8','delight','amused',20,'male','8-july-2009');
1 row created.

SQL> insert into smile values('9','gracious','smirk',21,'female','9-aug-2010');
1 row created.

SQL> insert into smile values('10','charm','rejoice',22,'male','10-sep-2011');
1 row created.

SQL>
```

The resultant table output for smile is

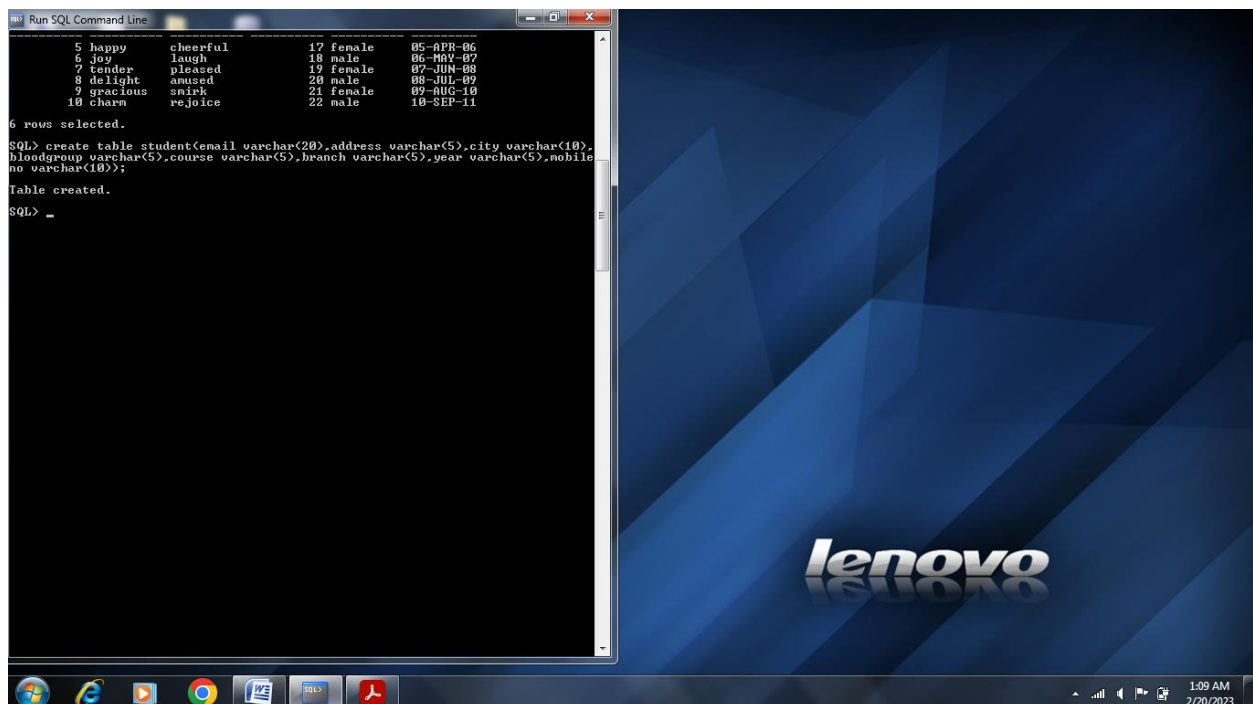


```
Run SQL Command Line
1 row created.
SQL> insert into smile values(7,'tender','pleased',19,'female','7-jun-2008');
ERROR:
ORA-01756: quoted string not properly terminated

SQL> insert into smile values(7,'tender','pleased',19,'female','7-jun-2008');
1 row created.
SQL> insert into smile values(8,'delight','amused',20,'male','8-july-2009');
1 row created.
SQL> insert into smile values(9,'gracious','smirk',21,'female','9-aug-2010');
1 row created.
SQL> insert into smile values(10,'charm','rejoice',22,'male','10-sep-2011');
1 row created.
SQL> select * from smile;
  SID FIRSTNAME  LASTNAME      AGE GENDER  DOB
-----
    5 happy      cheerful      17 female 05-APR-06
    6 joy        laugh        18 male  06-MAY-07
    7 tender     pleased      19 female 07-JUN-08
    8 delight    amused       20 male  08-JUL-09
    9 gracious   smirk        21 female 09-AUG-10
   10 charm      rejoice      22 male  10-SEP-11
6 rows selected.
SQL> _
```

Student Table of SQL

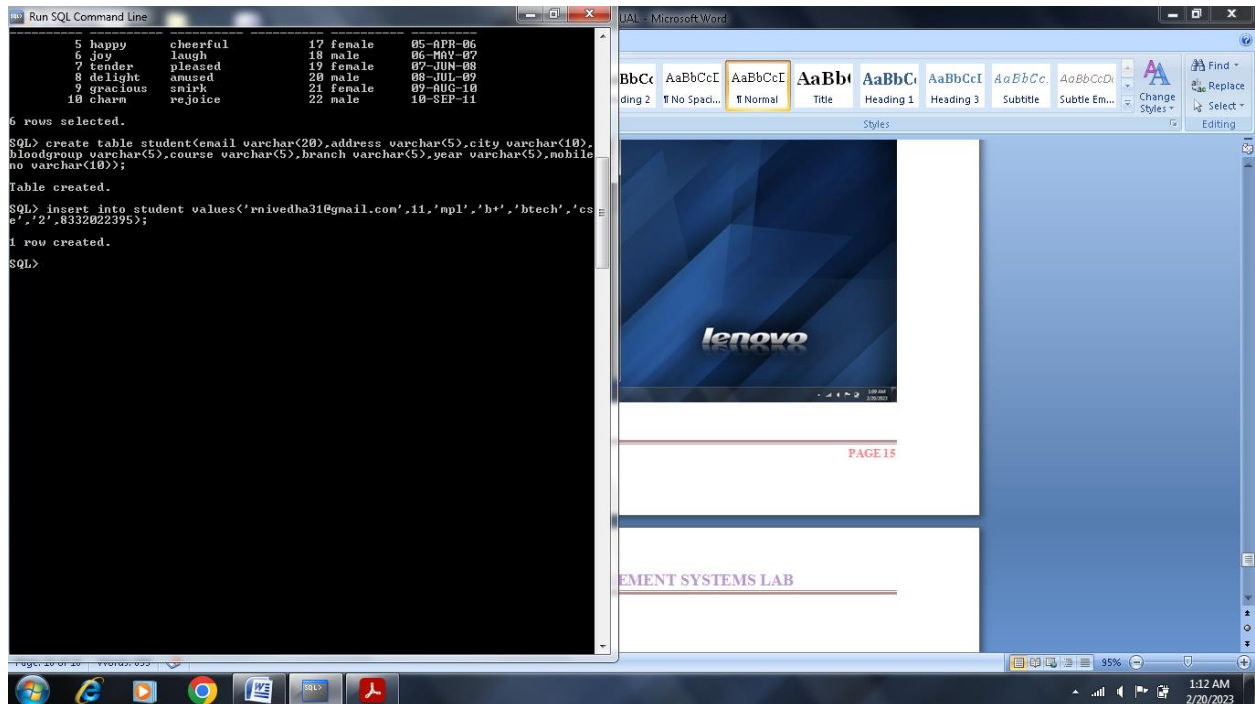
Create table student(email varchar(20),address varchar(5),city varchar(10),bloodgroup varchar(5),course varchar(5),branch varchar(5),year varchar(5),mobilenumber varchar(10));



```
Run SQL Command Line
  SID FIRSTNAME  LASTNAME      AGE GENDER  DOB
-----
    5 happy      cheerful      17 female 05-APR-06
    6 joy        laugh        18 male  06-MAY-07
    7 tender     pleased      19 female 07-JUN-08
    8 delight    amused       20 male  08-JUL-09
    9 gracious   smirk        21 female 09-AUG-10
   10 charm      rejoice      22 male  10-SEP-11
6 rows selected.
SQL> create table student(email varchar(20),address varchar(5),city varchar(10),
bloodgroup varchar(5),course varchar(5),branch varchar(5),year varchar(5),mobile
no varchar(10));
Table created.
SQL> _
```

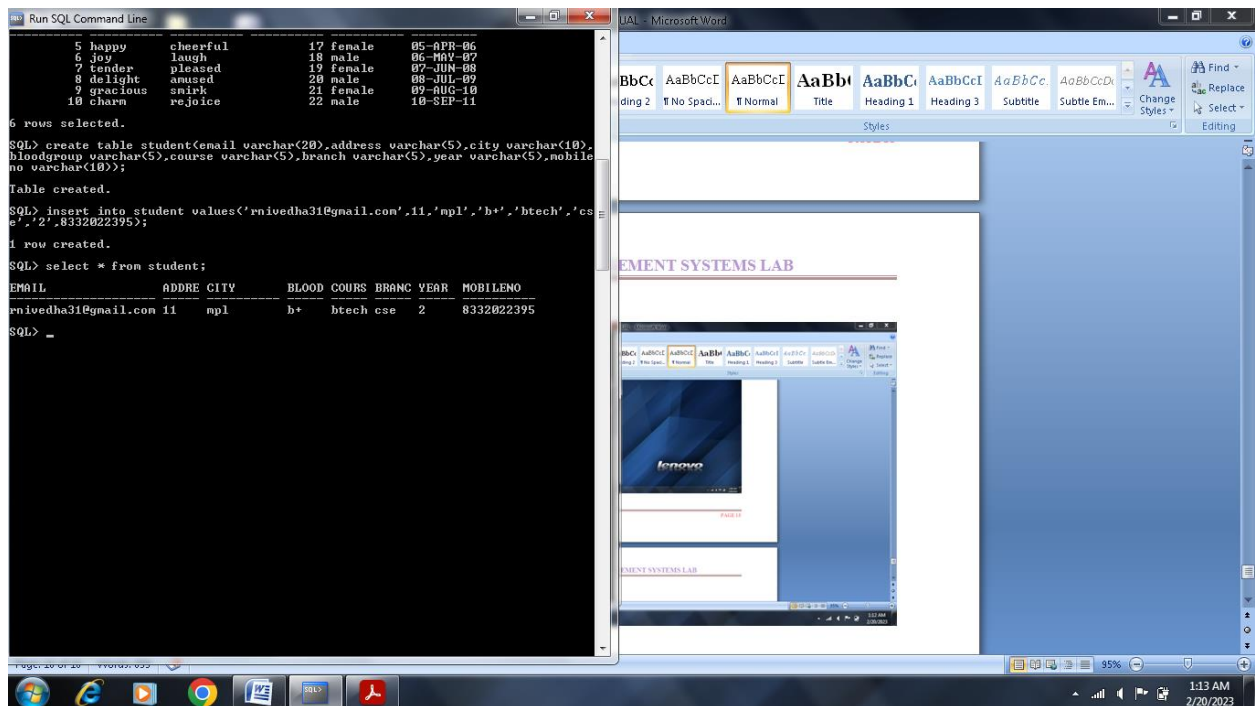
Now insert the values into table student:

insert into student values ('rnivedha31@gmail.com',11,'mpl','b+','btech','cse',2,8332022395);



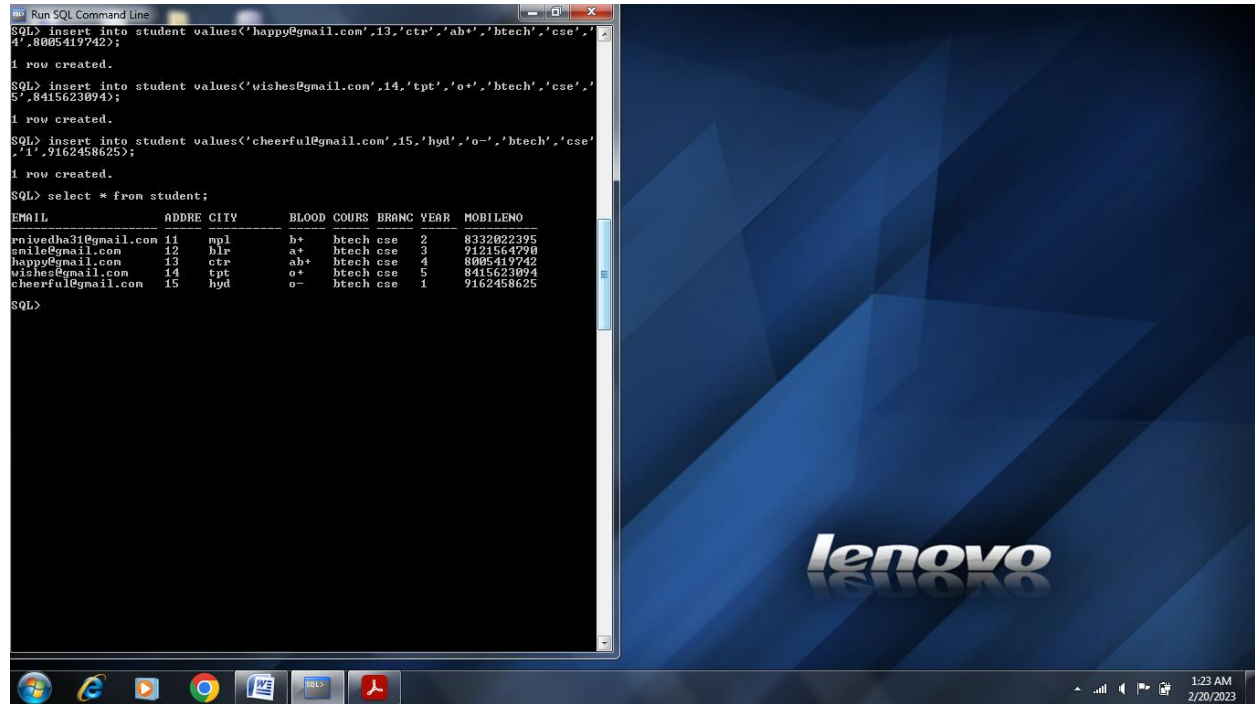
To see the output the command is

select * from student;



Insert 5 records and write the output here

OUTPUT :



The screenshot shows a Windows desktop with a dark blue background featuring the Lenovo logo. In the foreground, a 'Run SQL Command Line' window is open, displaying the following SQL commands and their outputs:

```
SQL> insert into student values('happy@gmail.com',13,'ctr','ah+','btech','cse','4',8005419742);
1 row created.

SQL> insert into student values('vishes@gmail.com',14,'tpt','o+','btech','cse','5',8415623094);
1 row created.

SQL> insert into student values('cheerful@gmail.com',15,'hyd','o-','btech','cse','1',9162458625);
1 row created.

SQL> select * from student;
```

EMAIL	ADDRE	CITY	BLOOD	COURS	BRANC	YEAR	MOBILENO
pnivedha31@gmail.com	11	mpl	b+	btech	cse	2	8332022395
smile@gmail.com	12	blr	a+	btech	cse	3	9121564790
happy@gmail.com	13	ctr	ah+	btech	cse	4	8005419742
vishes@gmail.com	14	tpt	o+	btech	cse	5	8415623094
cheerful@gmail.com	15	hyd	o-	btech	cse	1	9162458625

The taskbar at the bottom shows icons for various applications, including a web browser, a file explorer, and a PDF reader. The system clock in the bottom right corner indicates the time is 1:23 AM on 2/20/2023.

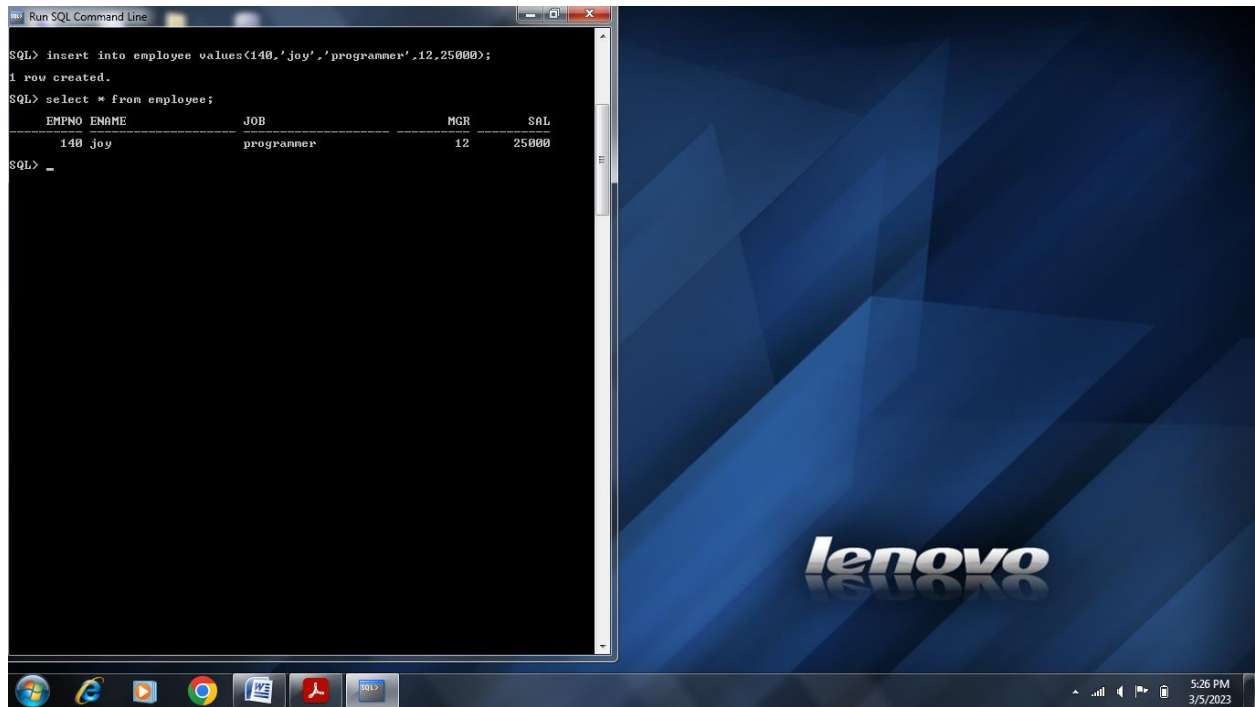
Employee Table of SQL

Create table employee(empno number, ename varchar2(20), job varchar(20), mgr number, sal number);

Insert into employee values(140,'joy','programmer',12,25000);

Now insert 10 records and write the output here.

OUTPUT :



```
Run SQL Command Line

SQL> insert into employee values(140, 'joy', 'programmer', 12, 25000);
1 row created.
SQL> select * from employee;

EMPNO  ENAME      JOB              MGR      SAL
-----
140    joy        programmer        12      25000

SQL> _
```

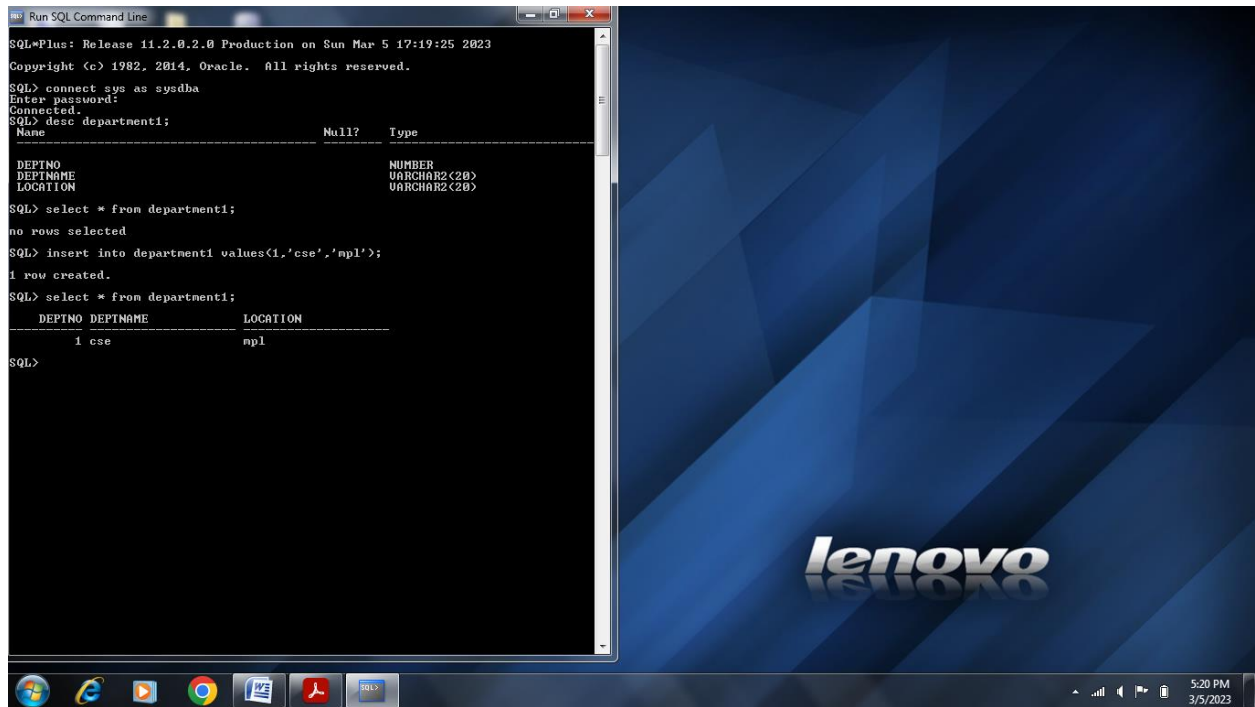
Department Table of SQL

create table department1(deptno number, deptname varchar2(20), location varchar2(20));

insert into department1 values(1,'cse','mpl');

In the same way insert 10 records and write the output

OUTPUT :



```
Run SQL Command Line
SQL*Plus: Release 11.2.0.2.0 Production on Sun Mar 5 17:19:25 2023
Copyright (c) 1982, 2014, Oracle. All rights reserved.

SQL> connect sys as sysdba
Enter password:
Connected.
SQL> desc department1;
   Name                      Null?    Type
-----
DEPTNO                       NUMBER
DEPTNAME                     VARCHAR2(20)
LOCATION                      VARCHAR2(20)

SQL> select * from department1;
no rows selected

SQL> insert into department1 values(1,'cse','mpl');
1 row created.

SQL> select * from department1;
   DEPTNO DEPTNAME      LOCATION
-----
       1   cse         mpl

SQL>
```

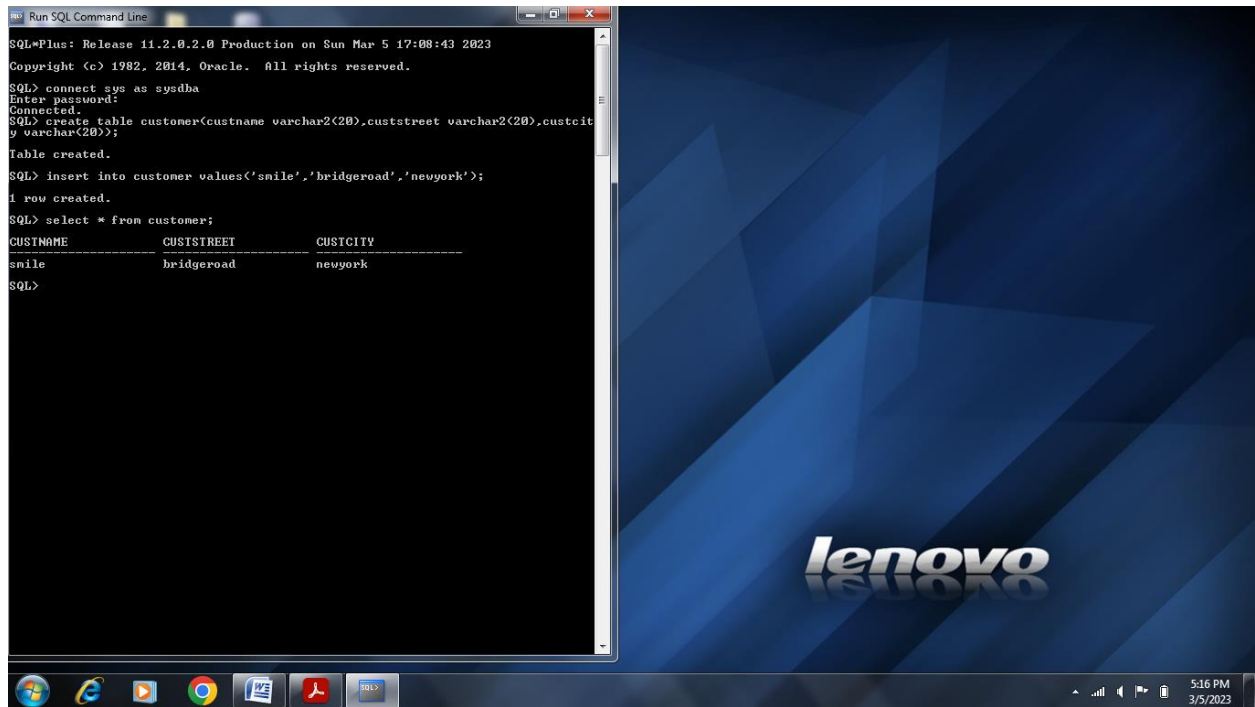
Customer Table of SQL

create table customer(custname varchar2(20), custstreet varchar2(20), custcity
varchar(20));

insert into customer values('smile','bridgeroad','newyork');

Now insert 10 records and write the output.

OUTPUT :



```
SQL> Run SQL Command Line
SQL*Plus: Release 11.2.0.2.0 Production on Sun Mar 5 17:08:43 2023
Copyright (c) 1982, 2014, Oracle. All rights reserved.

SQL> connect sys as sysdba
Enter password:
Connected.
SQL> create table customer(custname varchar2(20),custstreet varchar2(20),custcity
varchar2(20));
Table created.
SQL> insert into customer values('smile','bridgeroad','newyork');
1 row created.
SQL> select * from customer;
CUSTNAME      CUSTSTREET      CUSTCITY
-----
smile         bridgeroad      newyork
SQL>
```

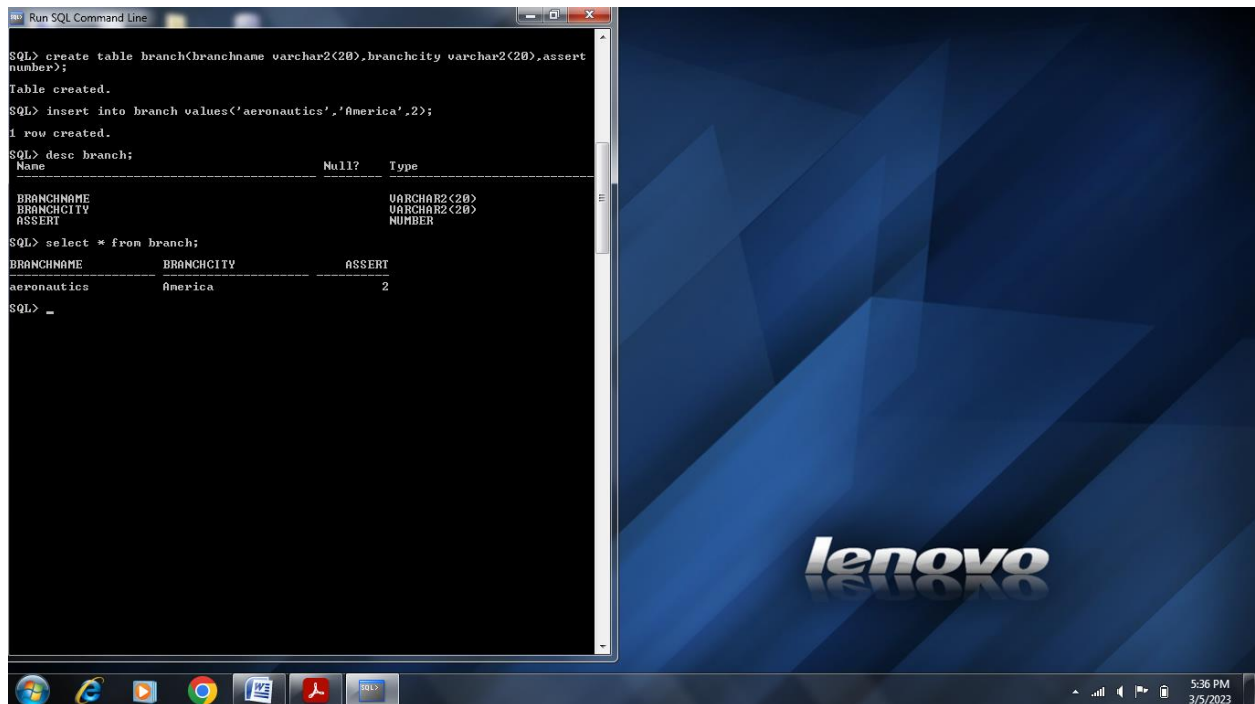
Branch Table of SQL

create table branch(branchname varchar2(20), branchcity varchar2(20), assert number);

insert into branch values('aeronautics','America',2);

Now insert 10 records and write the output.

OUTPUT:



```
SQL> Run SQL Command Line
SQL> create table branch(branchname varchar2(20),branchcity varchar2(20),assert
number);
Table created.
SQL> insert into branch values('aeronautics','America',2);
1 row created.
SQL> desc branch;
Name          Null?     Type
-----
BRANCHNAME    VARCHAR2(20)
BRANCHCITY    VARCHAR2(20)
ASSERT        NUMBER
SQL> select * from branch;
BRANCHNAME      BRANCHCITY      ASSERT
-----
aeronautics     America         2
SQL>
```

Result: Hence implementation of SQL commands are successfully applied in creation of tables.