IE2080
Database Systems Administration
2nd Year, 1st Semester

Practical Based Assignment

Submitted to

Sri Lanka Institute of Information Technology

In partial fulfillment of the requirements for the

Bachelor of Science Special Honors Degree in Information Technology

22.05.2022

Declaration

I certify that this report does not incorporate without acknowledgement, any material previously submitted for a degree or diploma in any university, and to the best of my knowledge and belief it does not contain any material previously published or written by another person, except where due reference is made in text.

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Table of contents

Contents

1. Installation steps
2. Create a PDB by using Database Configuration Assistant (DBCA

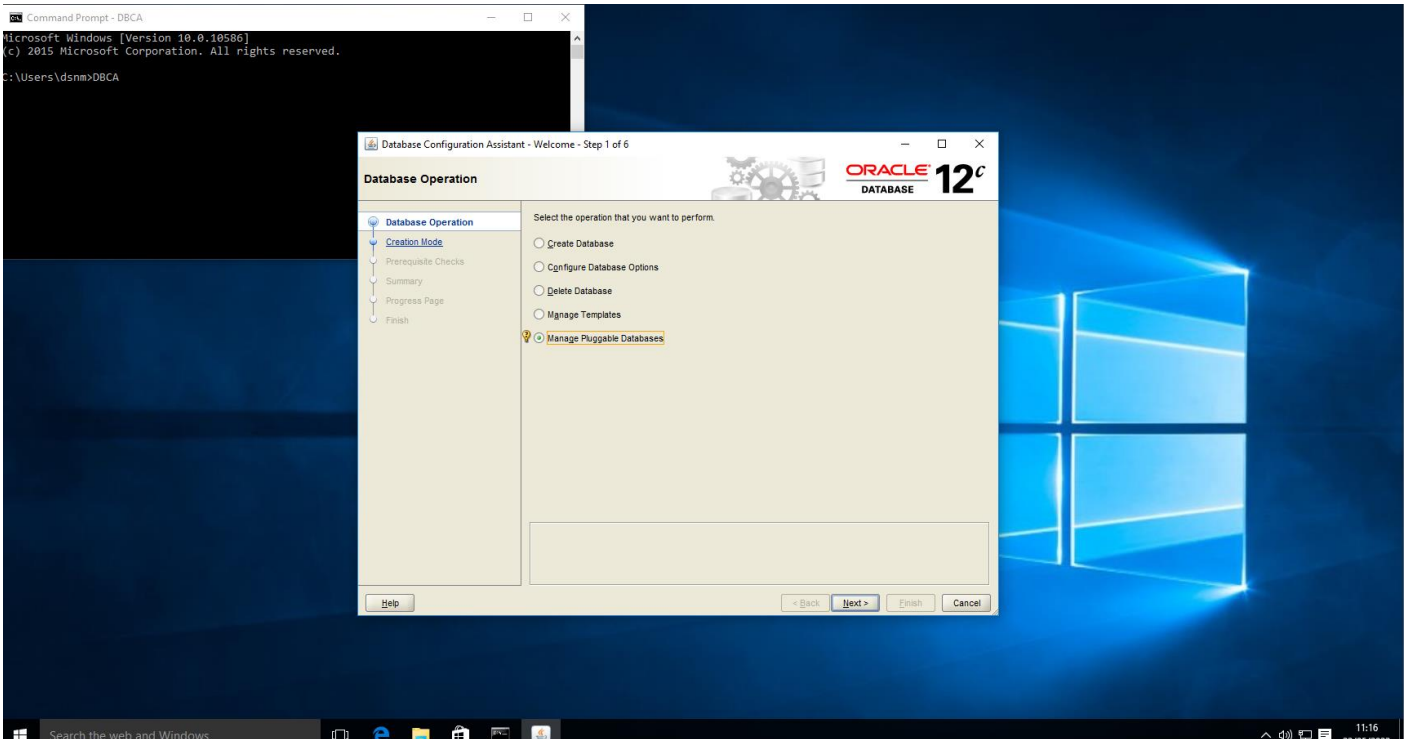

Figure 1.1 Run DBCA utility provided by Oracle to create a new pluggable database.

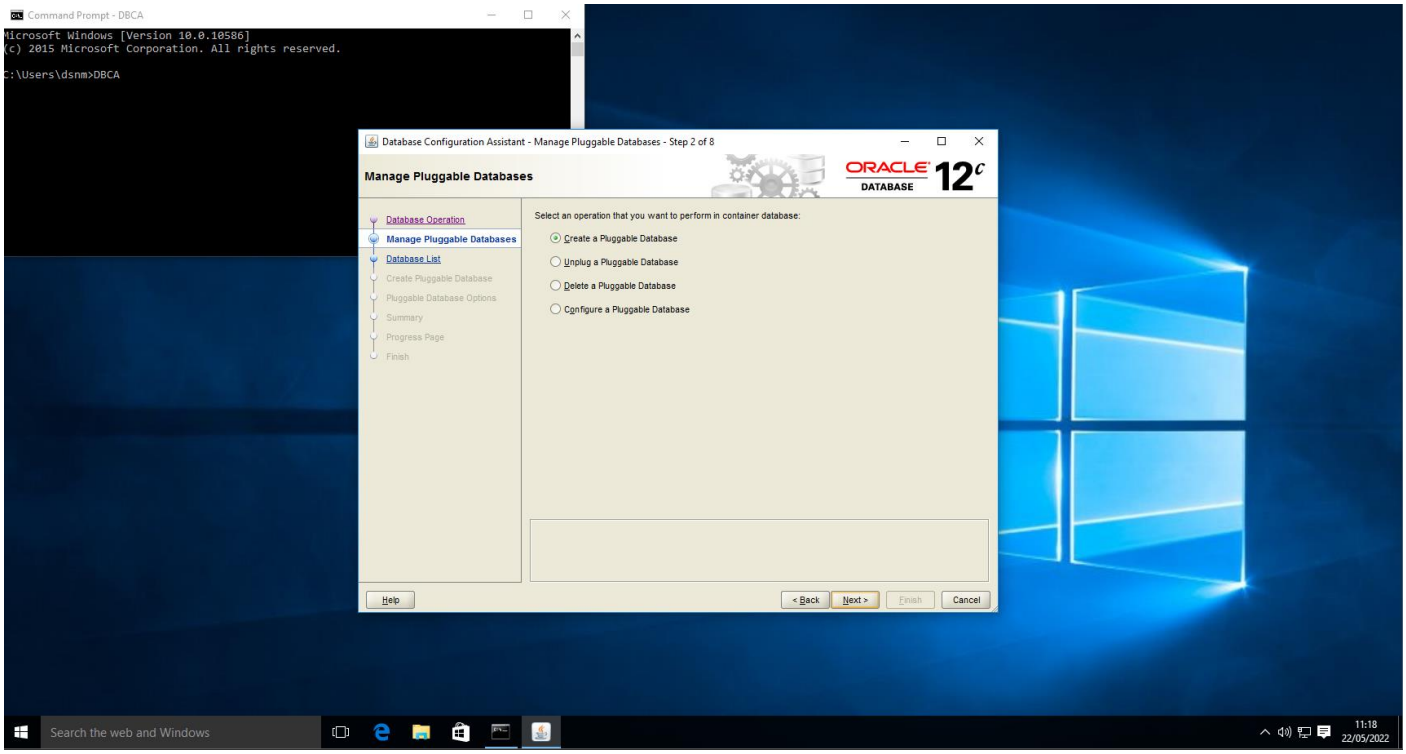

Figure 1. 2 Create a pluggable database

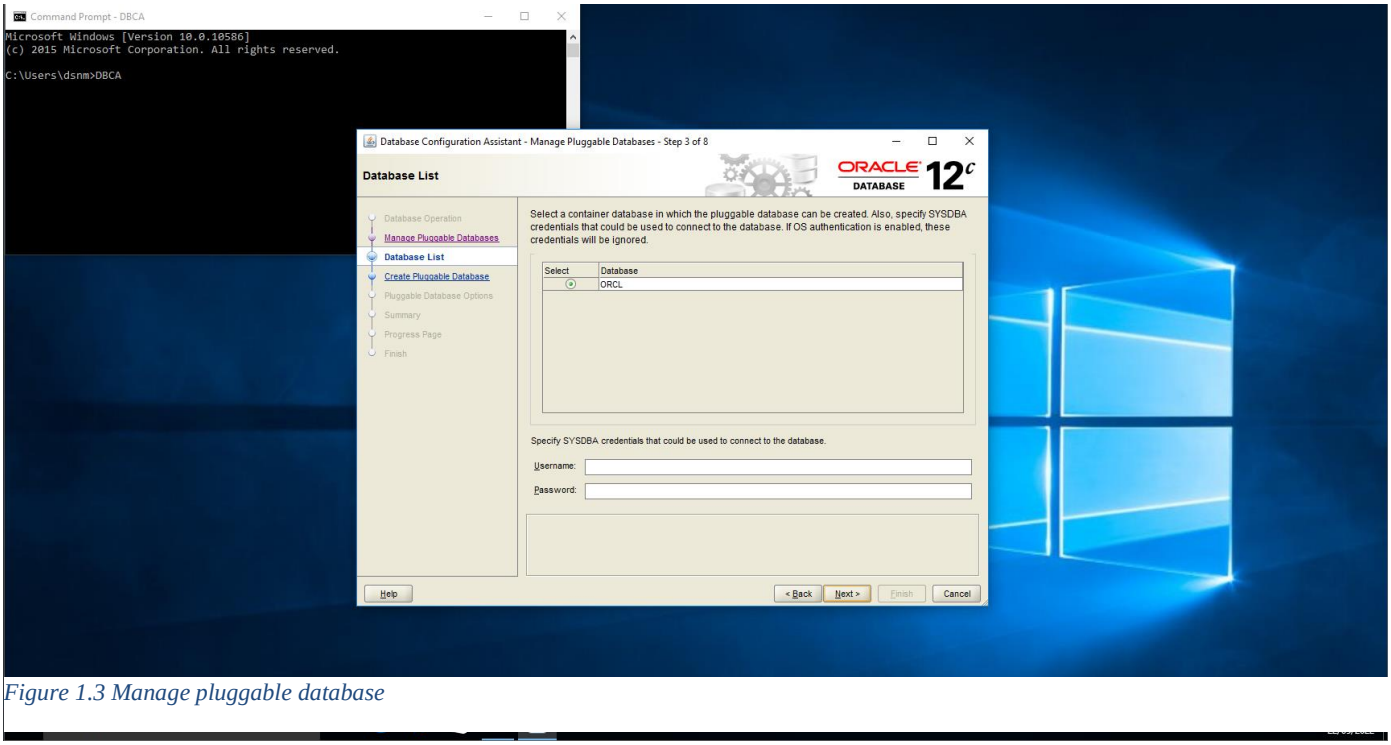

Figure 1.3 Manage pluggable database

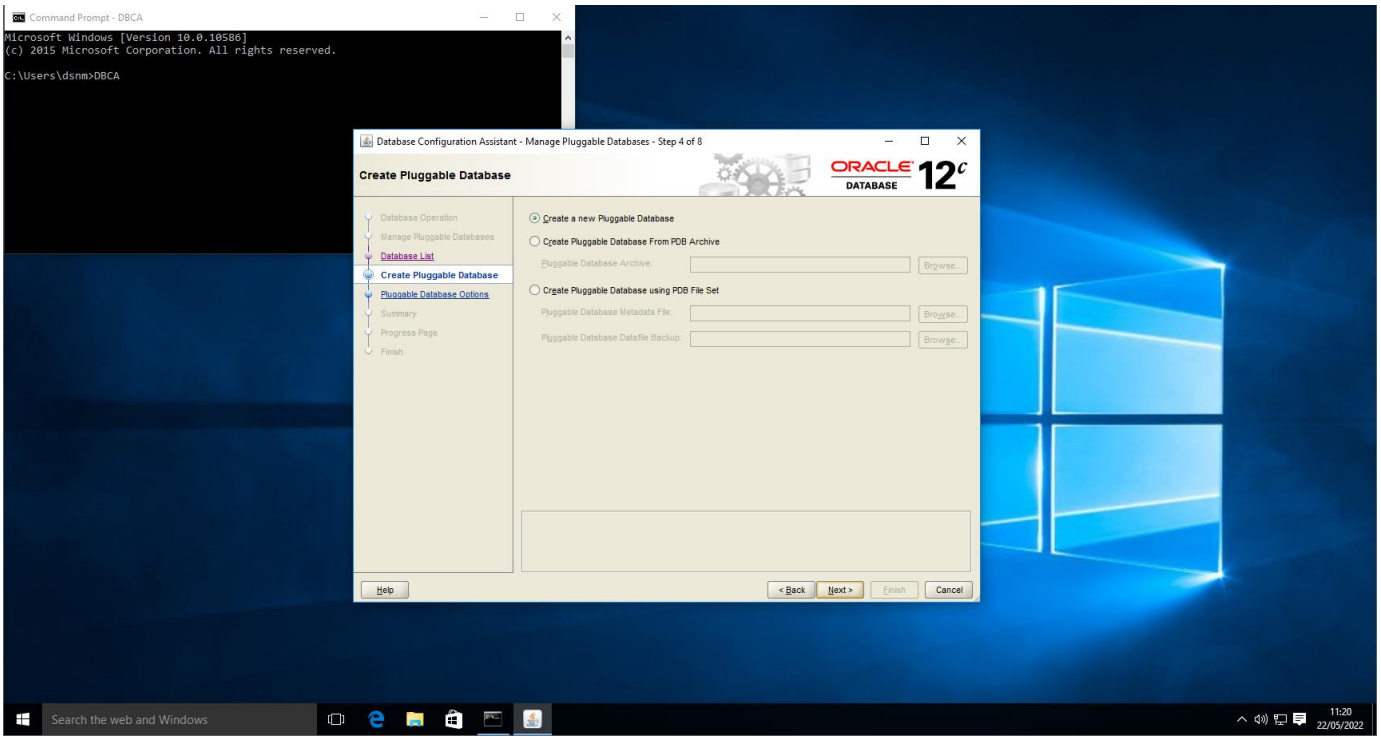

Figure 1.4 Manage pluggable database 2

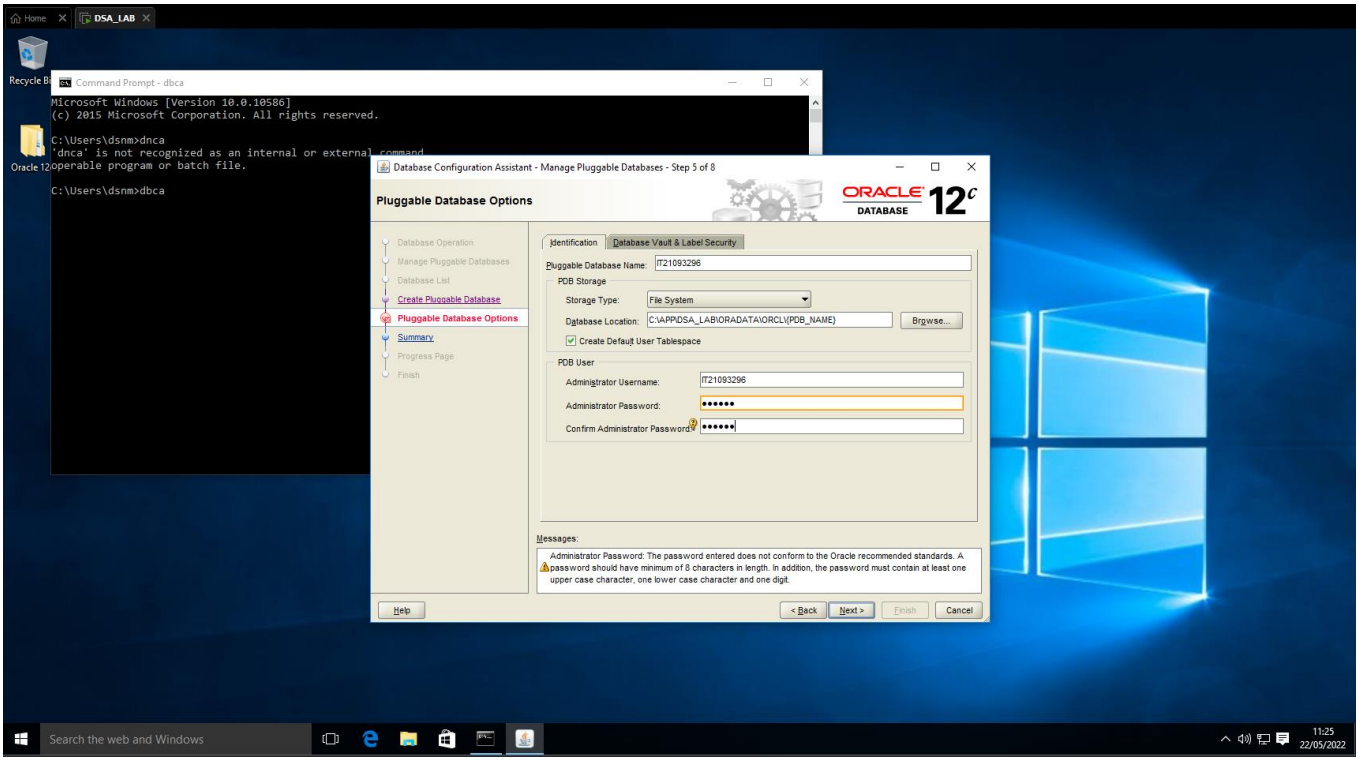

Figure 1.5 Naming new PDB with my it number

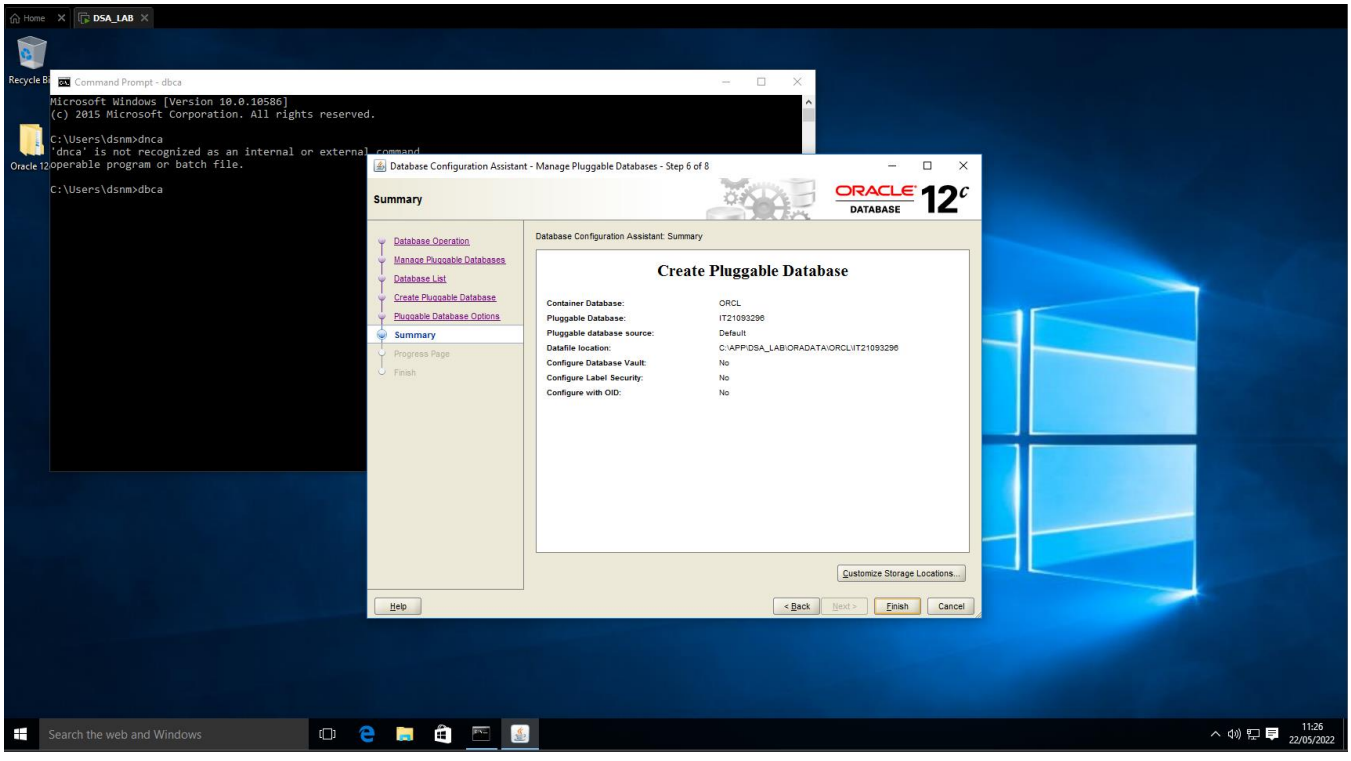

Figure 1.6 Creating PDB

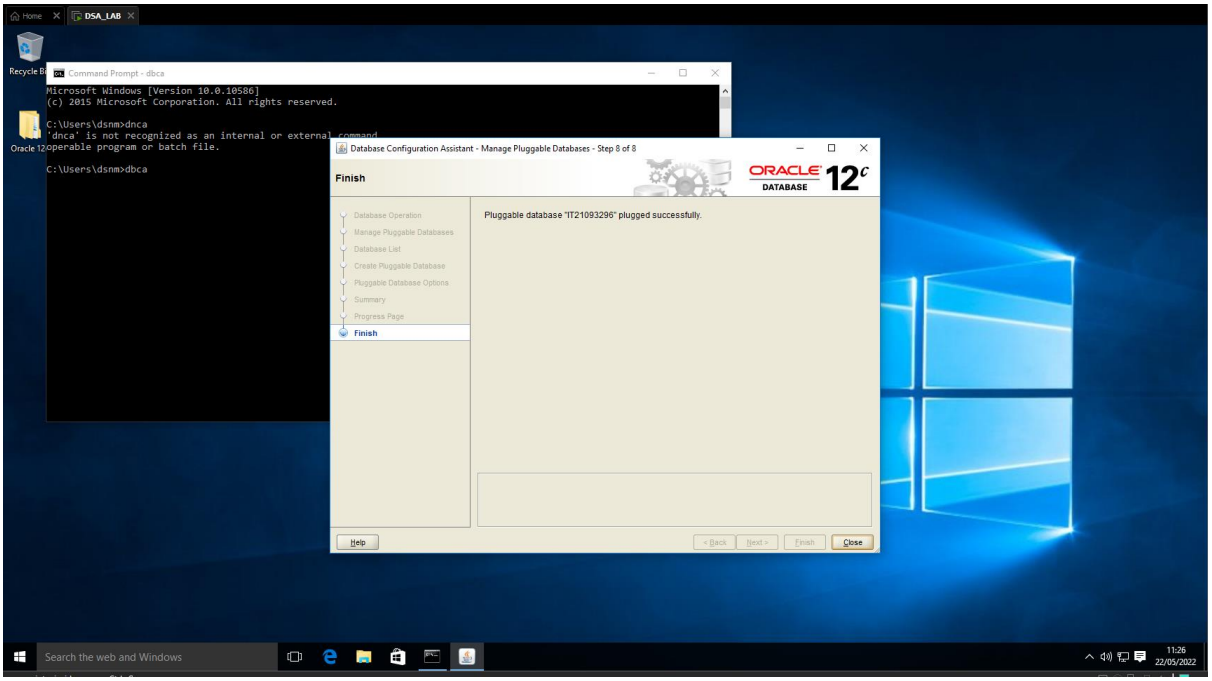

Figure 1.7 PDB created

C. Provide user administration and security. (Use SQLPLUS command prompt to perform following activities. Refrain using EMexpress or SQL Developer to perform following activities)

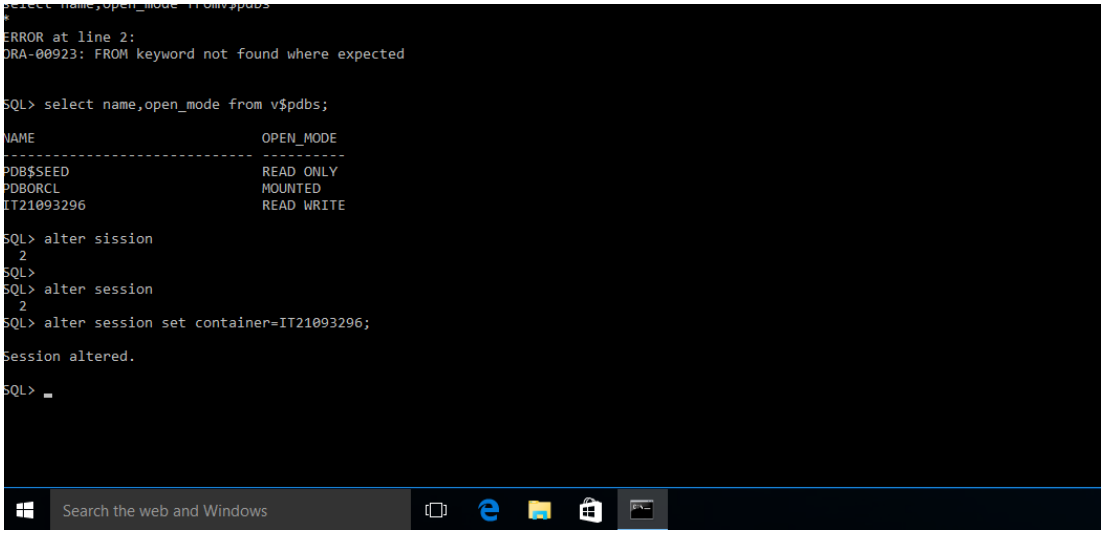

Figure 2.1 Alter the session and set container into newly created pluggable database

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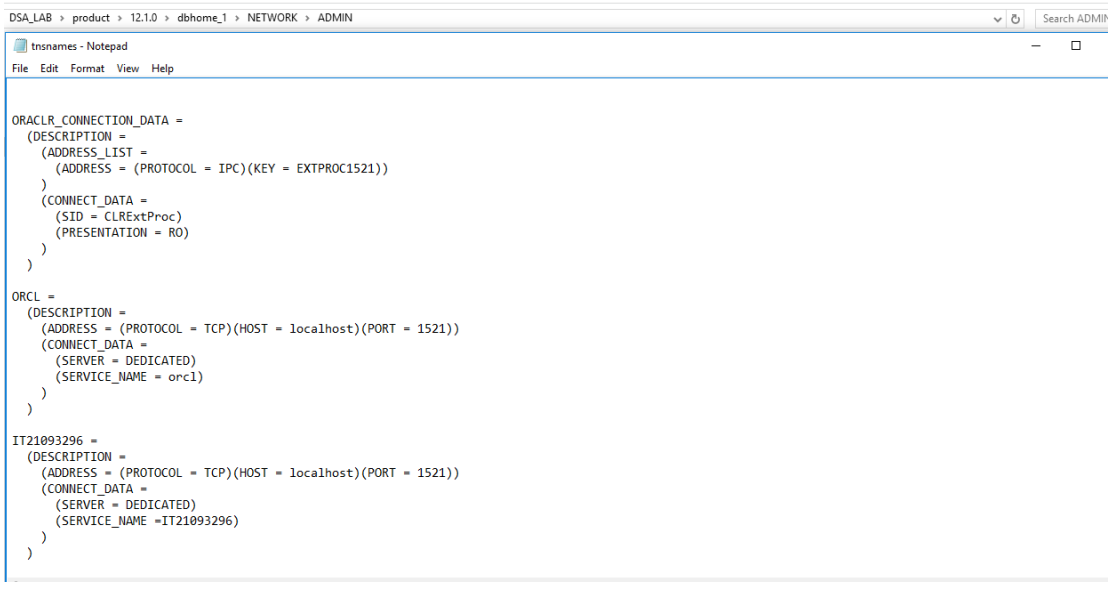

Figure 2.2 Renaming pdb with it number

1. Create profile

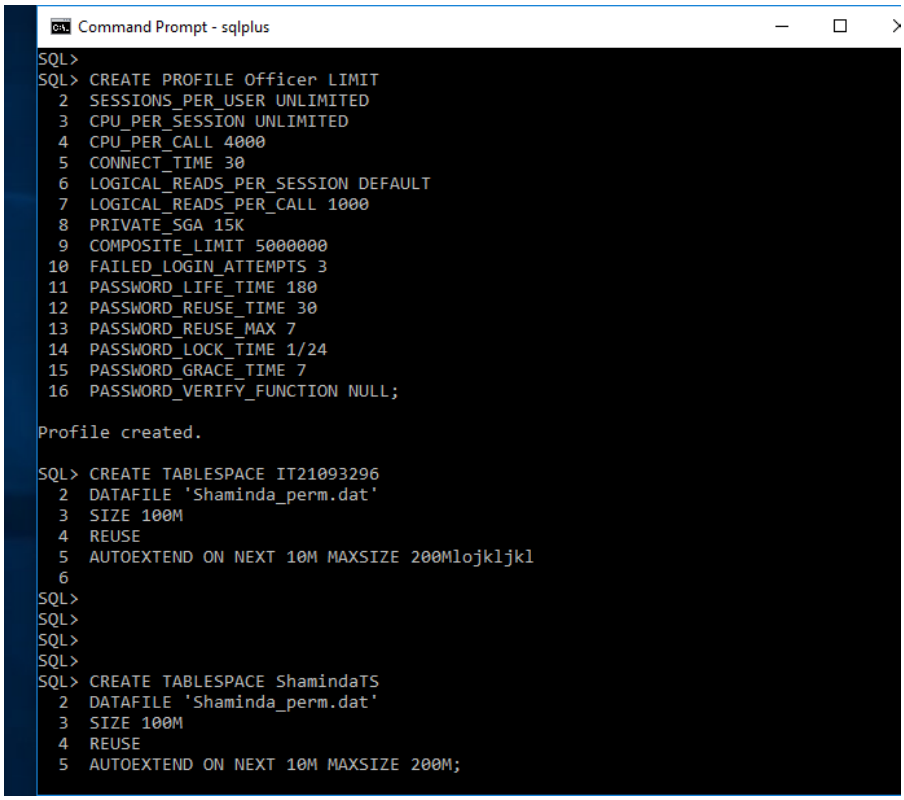

Figure 3.1 Create profile

. 2. Create default table space

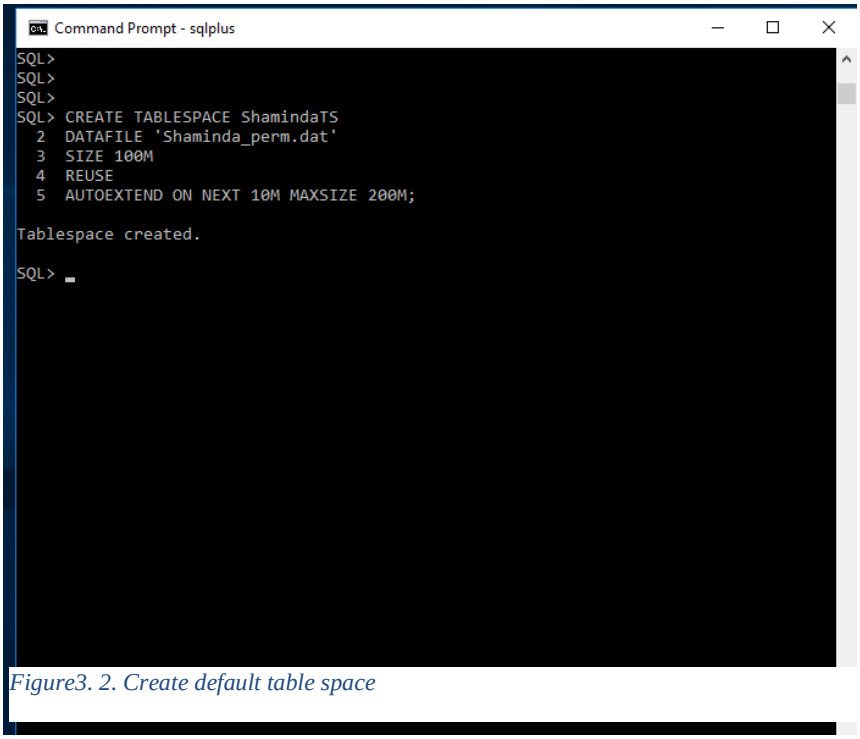

Figure3. 2. Create default table space

3. Create temporary table space

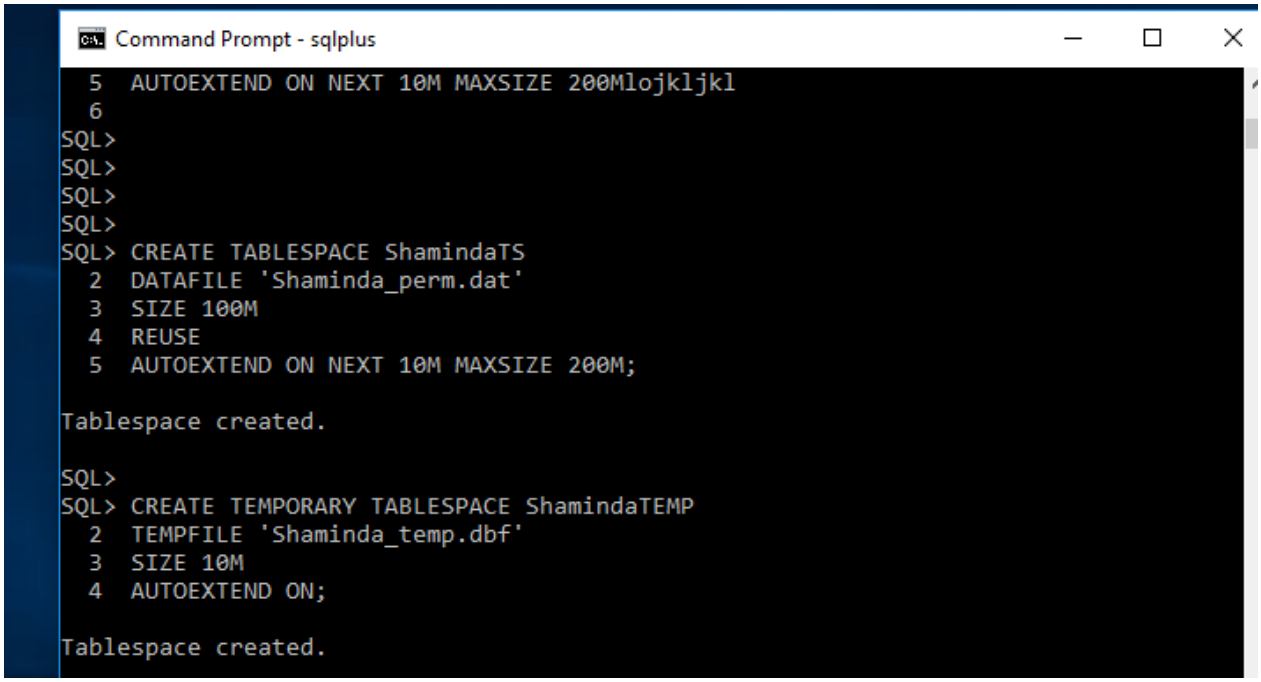

Figure 3.3 Create temporary table space

4. Create role

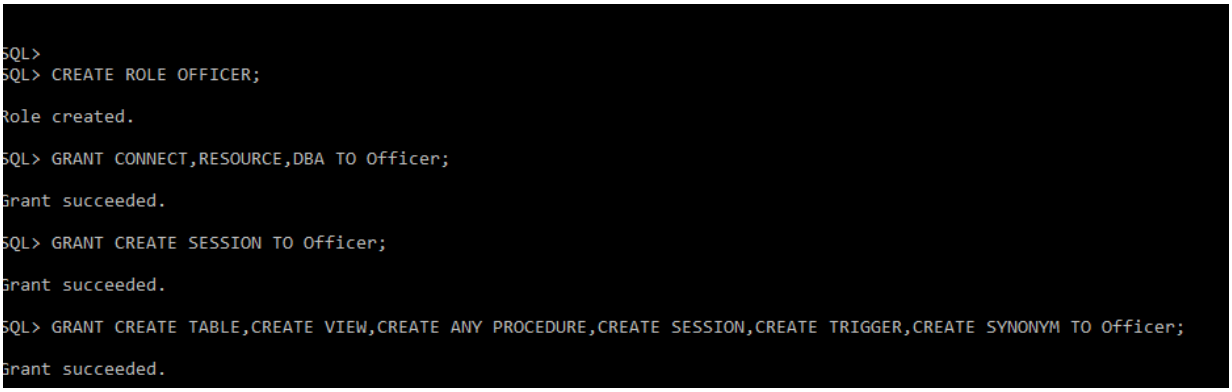

Figure 3. 4 Create role

5. Create user

```
SQL> CREATE USER Shaminda IDENTIFIED BY abc123
  2  DEFAULT TABLESPACE ShamindaTS
  3  TEMPORARY TABLESPACE ShamindaTEMP
  4  QUOTA 50M ON ShamindaTS
  5  PROFILE Officer;

User created.

SQL>
```

Figure 3.5 Create user

6. Connect to user account that you have created in step 5 (Provide appropriate privileges when needed) Hint : Use appropriate connect string in the command prompt

```
SQL>
SQL> GRANT Officer to Shaminda;

Grant succeeded.

SQL> exit
Disconnected from Oracle Database 12c Enterprise Edition Release 12.1.0.2.0 - 64bit Production
With the Partitioning, OLAP, Advanced Analytics and Real Application Testing options
```

Figure 3.6 Connect user

7. Create tables by converting below description into a relational model using Oracle SQL queries after connecting to the created user account in step 5

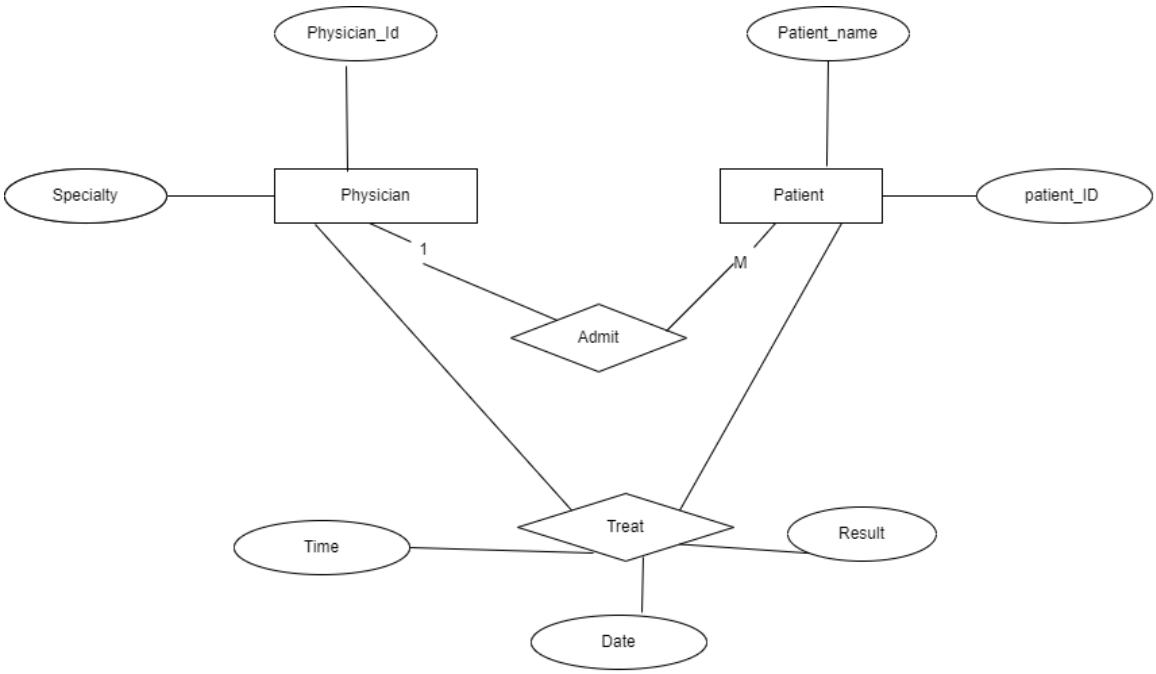

Figure 4.1 ER diagram

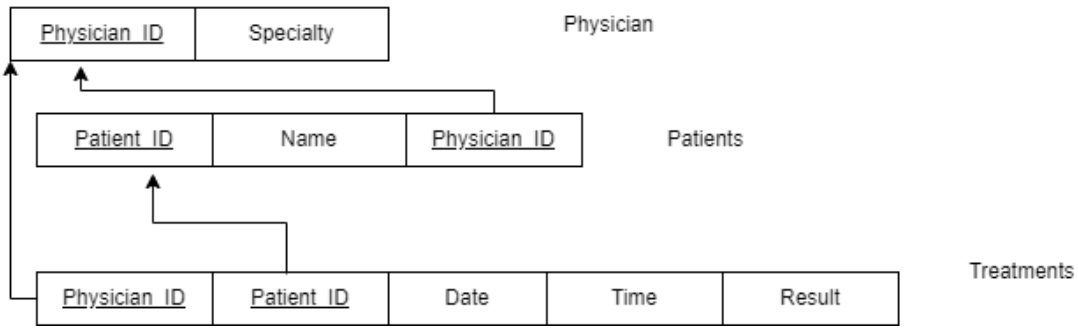

Figure 4.2 relational model

8. Insert 5 data rows as you wish for the created tables in step 7.

```
Last Successful login time: Mon May 23 2022 00:34:57 +05:30

Connected to:
Oracle Database 12c Enterprise Edition Release 12.1.0.2.0 - 64bit Production
With the Partitioning, OLAP, Advanced Analytics and Real Application Testing options

SQL> CREATE TABLE PHYSICIAN(
  2  PHYSICIAN_ID CHAR(5) NOT NULL,
  3  SPECIALTY VARCHAR(50),
  4  constraint PHYSICIAN_PK PRIMARY KEY(PHYSICIAN_ID));

Table created.

SQL> CREATE TABLE PATIENT(
  2  PATIENT_ID CHAR(5) NOT NULL,
  3  NAME VARCHAR(50),
  4  PHYSICIAN_ID CHAR(5) NOT NULL,
  5  constraint PATIENT_PK PRIMARY KEY(PATIENT_ID),
  6  constraint FK1 FOREIGN KEY(PHYSICIAN_ID) REFERENCES PHYSICIAN(PHYSICIAN_ID));

Table created.

SQL> CREATE TABLE TREATMENTS(
  2  PHYSICIAN_ID CHAR(5) NOT NULL,
  3  PATIENT_ID CHAR(5) NOT NULL,
  4  T_DATE VARCHAR(15),
  5  T_TIME VARCHAR(10),
  6  RESULT VARCHAR(100),
  7  constraint FK2 FOREIGN KEY(PHYSICIAN_ID) REFERENCES PHYSICIAN(PHYSICIAN_ID),
  8  constraint FK3 FOREIGN KEY(PATIENT_ID) REFERENCES PATIENT(PATIENT_ID));

Table created.
```

Figure 5.1 Creating tables

```
Command Prompt - sqlplus  Shaminda/abc123@IT21093296
ERROR at line 1:
ORA-00001: unique constraint (SHAMINDA.PHYSICIAN_PK) violated


SQL> INSERT INTO PHYSICIAN VALUES('PHY02','CHEST PHYSICIAN');

1 row created.

SQL> INSERT INTO PHYSICIAN VALUES('PHY03','Neurology');

1 row created.

SQL> INSERT INTO PHYSICIAN VALUES('PHY04','Allergy and immunology');

1 row created.

SQL> INSERT INTO PHYSICIAN VALUES('PHY05','Anesthesiology');

1 row created.
```

Figure 6.1 Insert data Physician

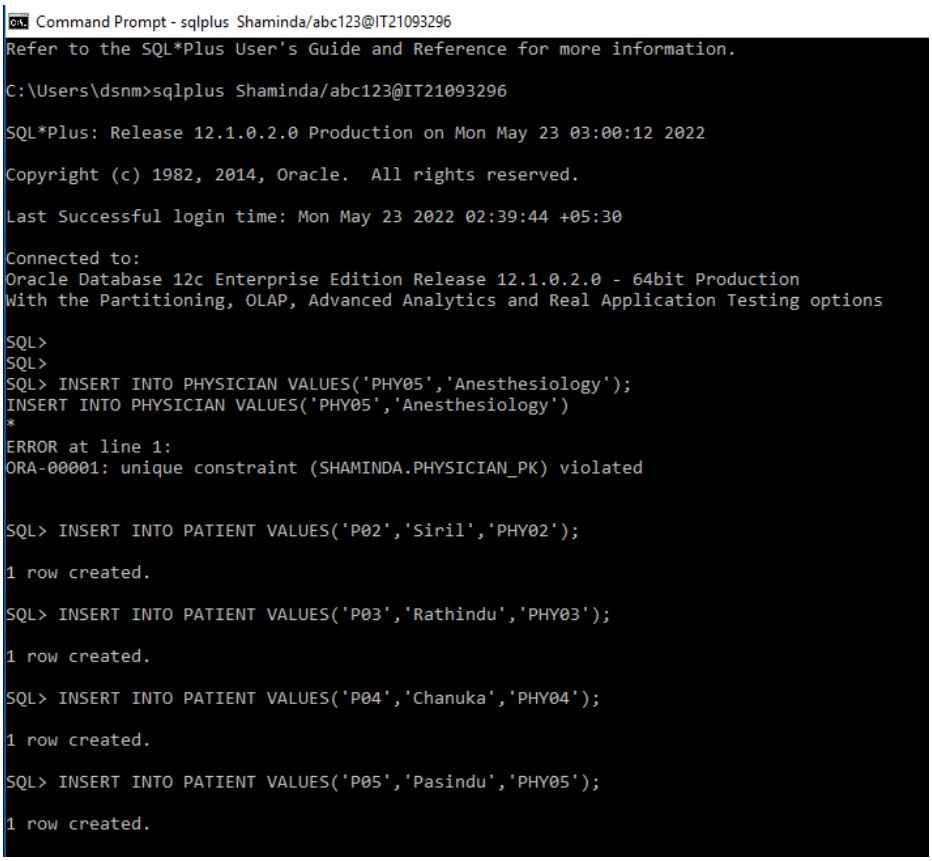

Figure 6.2 Insert data patient

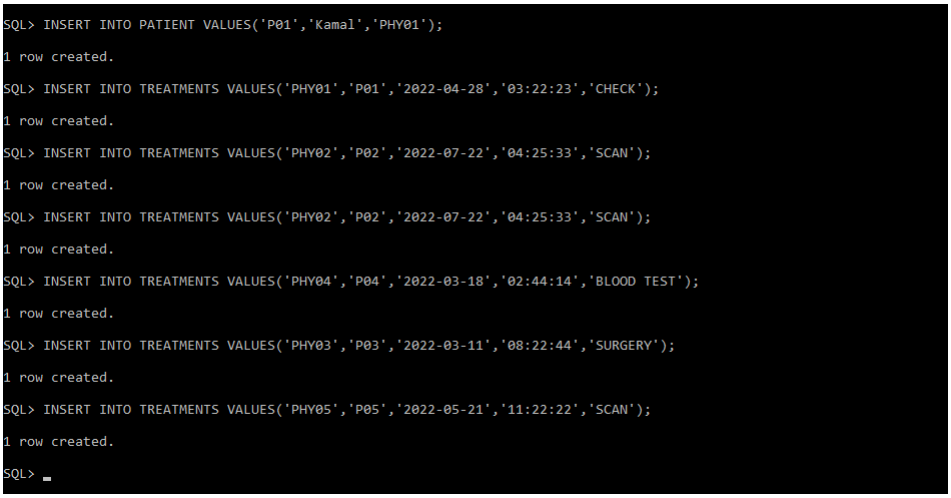

Figure 6.3 Insert data treatments