

How to create a Database Schema in Oracle 21c Express Edition using SQL Developer

What is a Schema in Oracle?

Schema is like an user in oracle which contains tables, views, triggers, functions and procedures.

What is SQL Developer?

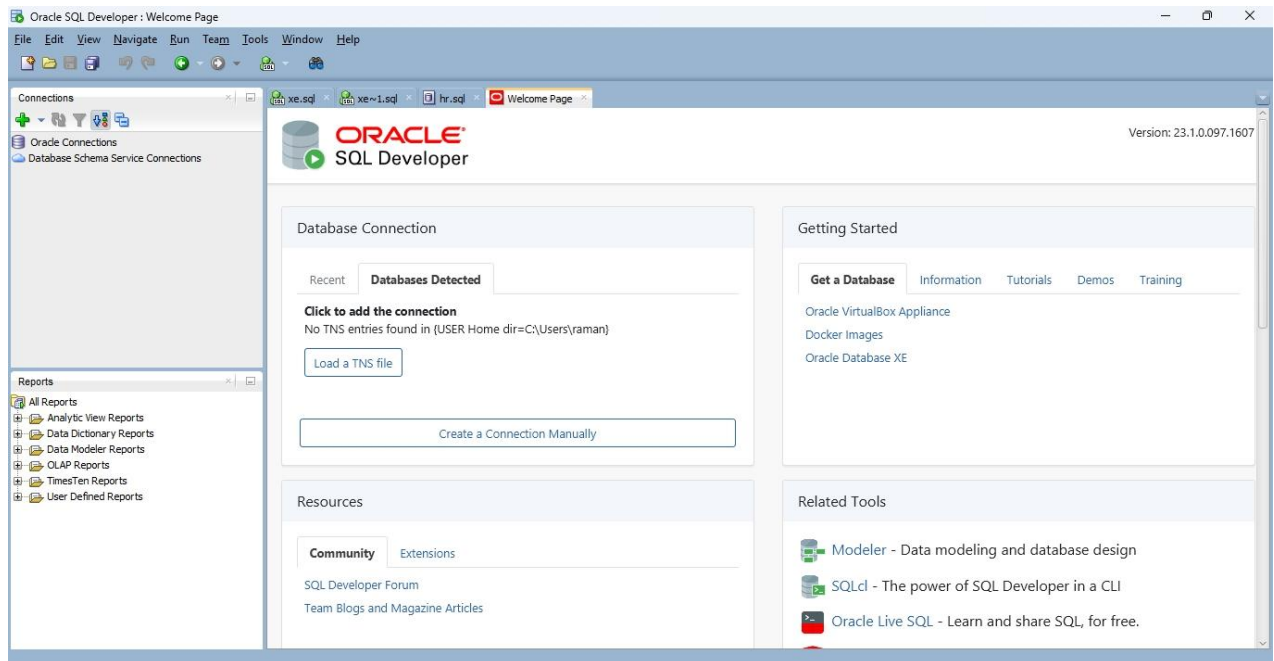
SQL Developer is a software provided by Oracle Corporation that can help you administer oracle databases, create schemas and to get data from tables , views and other database operations.

During the installation of Oracle 21c Express Edition setup will ask you for password for SYS, SYSTEM and PDBA Account. Remember this password or note it down somewhere. I am taking password as "abcdef".

Only SYS, SYSDBA Accounts can create a new schema.

Download SQL Developer from oracle website or you can search for download sql developer on google. it will be zip file extract it on your hard disk and start sqldeveloper.exe

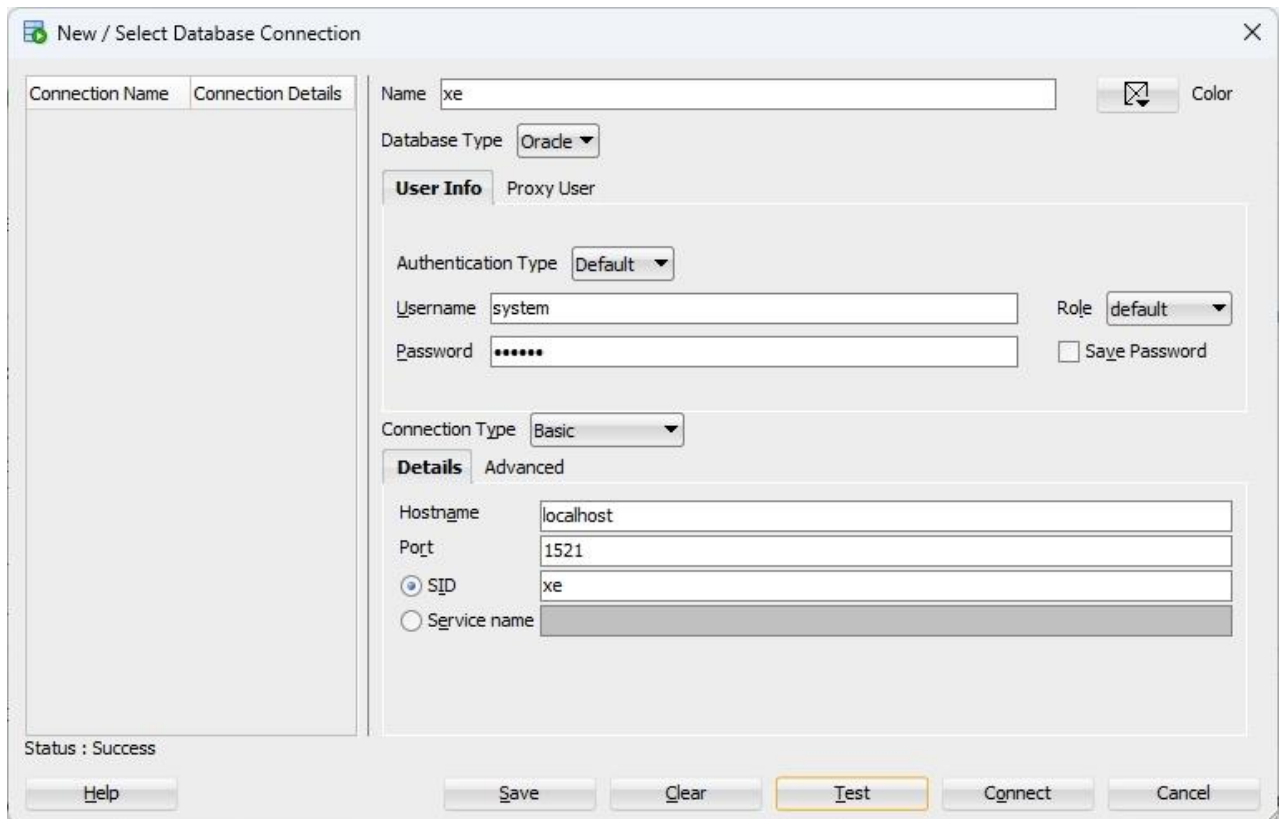
Following window will appear



Now we need to create an Oracle Connection

Right Click on Oracle Connections -> New Connection

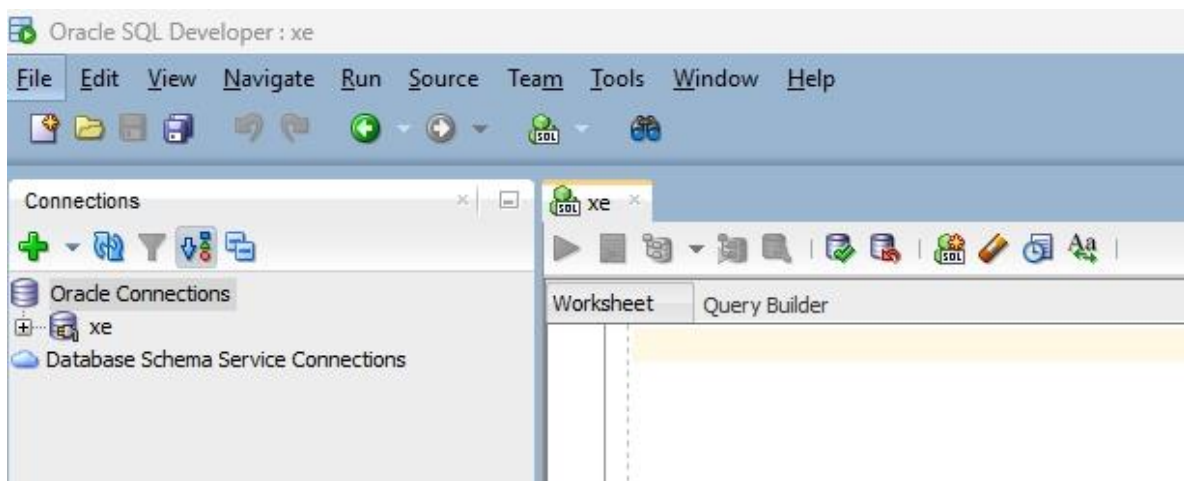
Following window will appear



Enter Username as system and password as “abcdef” Click Test if Success comes as Status that means you successfully created connection to oracle database using username as system and password as abcdef.

Now Click Connect.

Following window will appear.

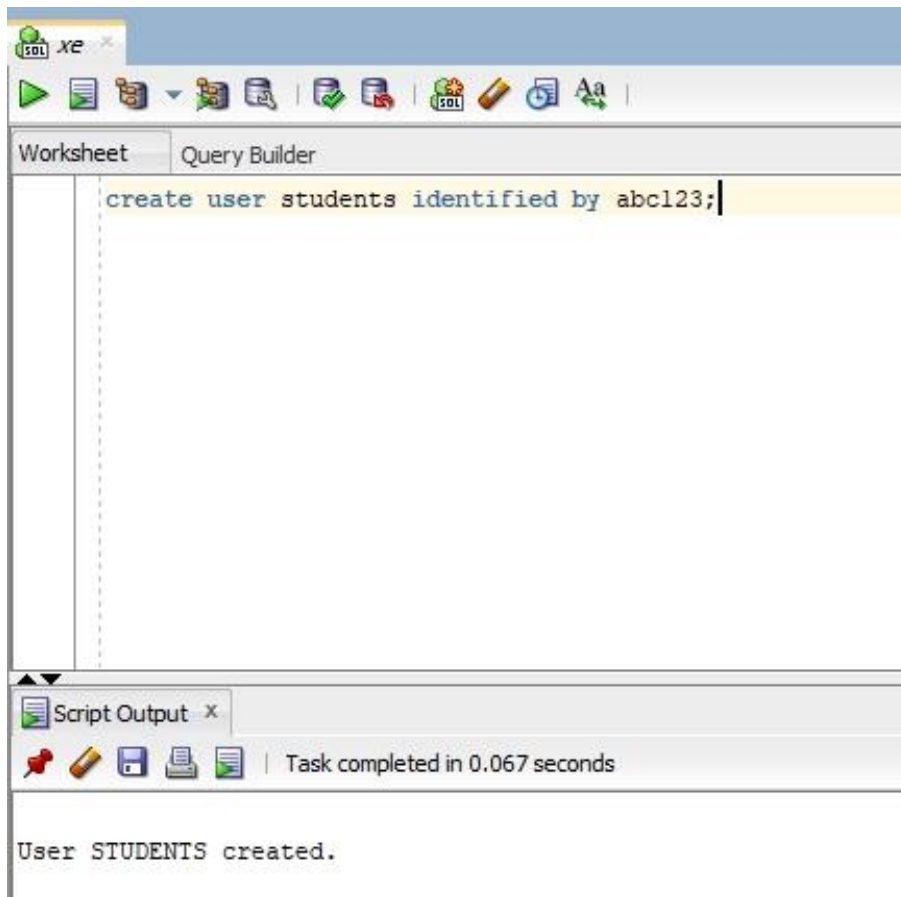


Now in the worksheet

type the following query to create a schema or user as **students** with password as **abc123**

create user students identified by abc123;

You will see the following output



Now a schema or user is created and we can also call it as a database in oracle as it can contain tables, views, functions, procedures, triggers in it.

We can also grant privileges to this user. Privilege means access rights to a user for example if you want that user students which was created by the above command can create a table it should have [create table](#) privilege. Another example is if you want user students can drop a table or delete a table user students should have [drop table](#) privilege.

Following is the command to grant all the privileges to user students.

[GRANT ALL PRIVILEGES to students;](#)

Now we will make a new Oracle Connection to user students.

Right Click on Oracle Connections and Select New Connection

New / Select Database Connection

| Connection Name | Connection Details |
|-----------------|--------------------|
| xe | system@//localh... |

Name: students

Database Type: Oracle

User Info: Proxy User

Authentication Type: Default

Username: students

Password:

Role: default

Save Password: ☐

Connection Type: Basic

Details: Advanced

Hostname: localhost

Port: 1521

☒ SID: xe

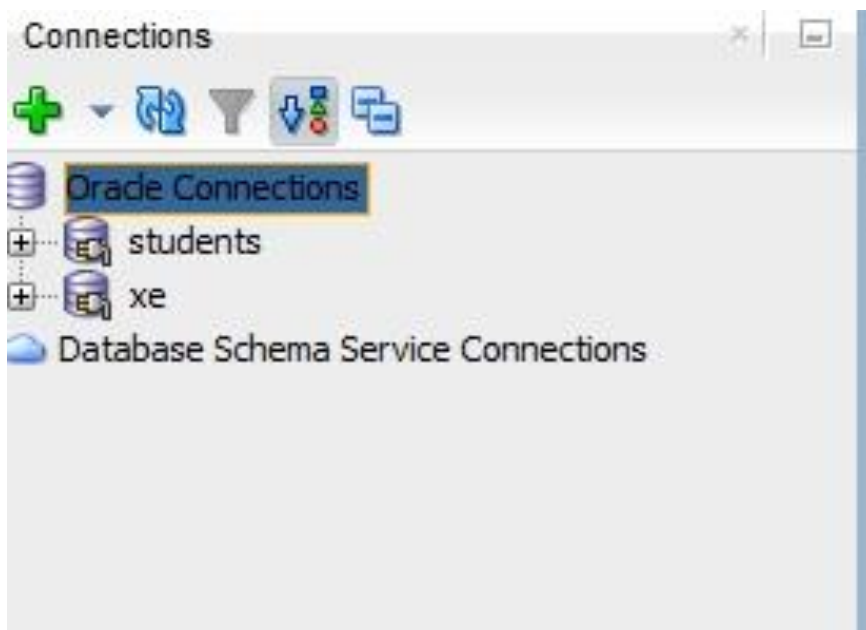
☐ Service name:

Status: Success

Buttons: Help, Save, Clear, Test, Connect, Cancel

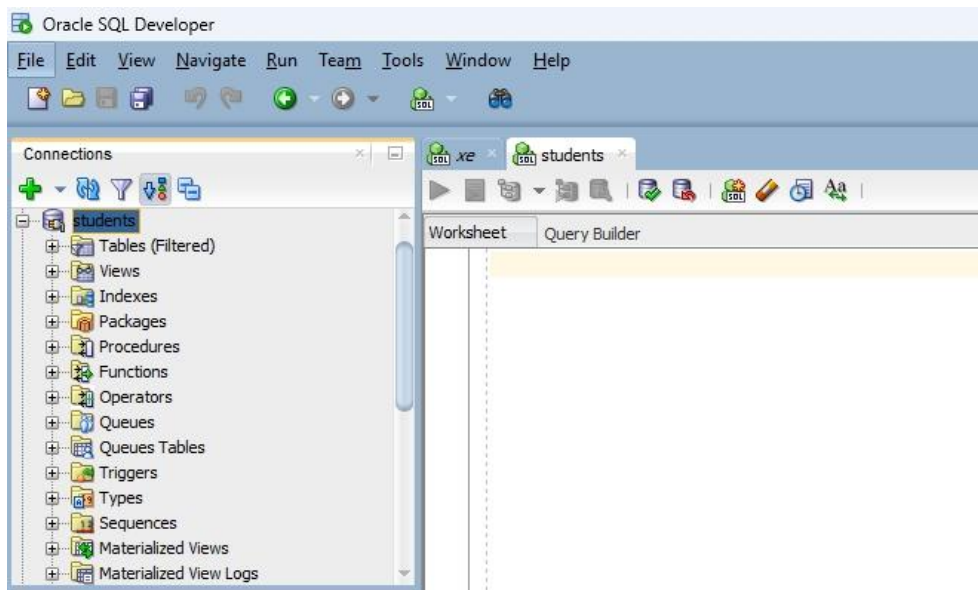
Click on Connect and new Connection will be created.

You will see the following output



Now expand students schema or user.

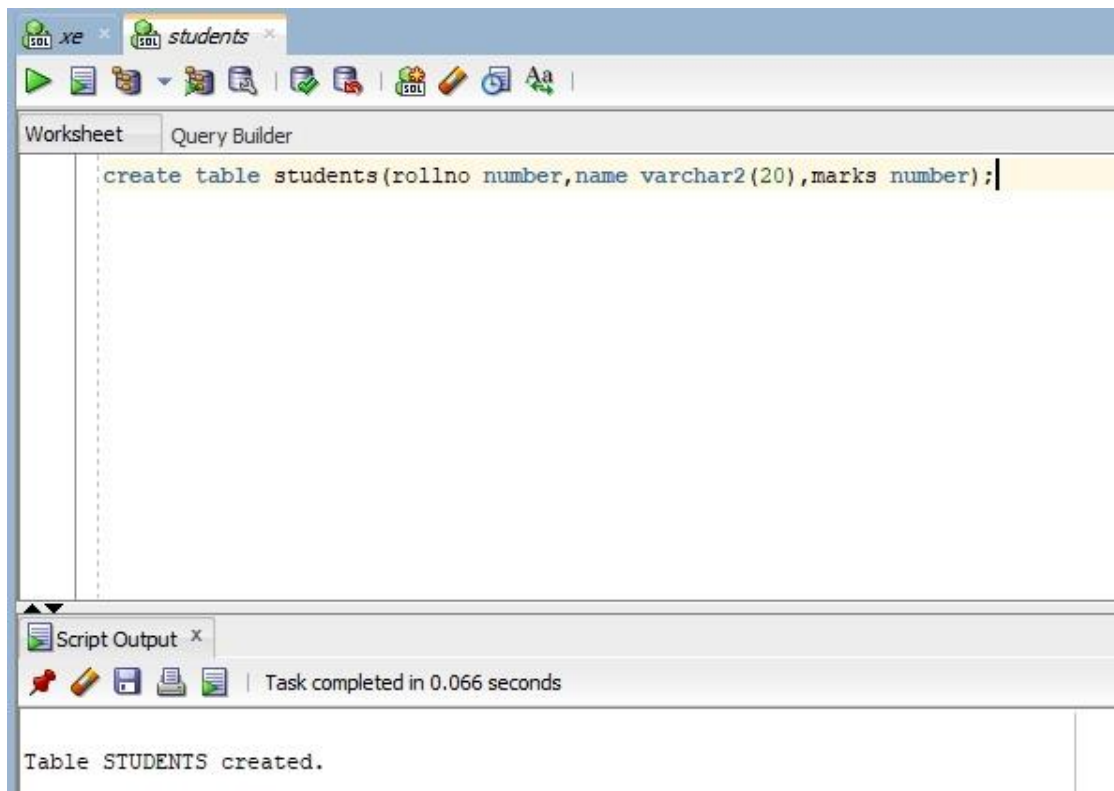
You will see the following output



Now in the students worksheet type sql command

```
create table students(rollno number,name varchar2(20),marks number);
```

You will see the following output

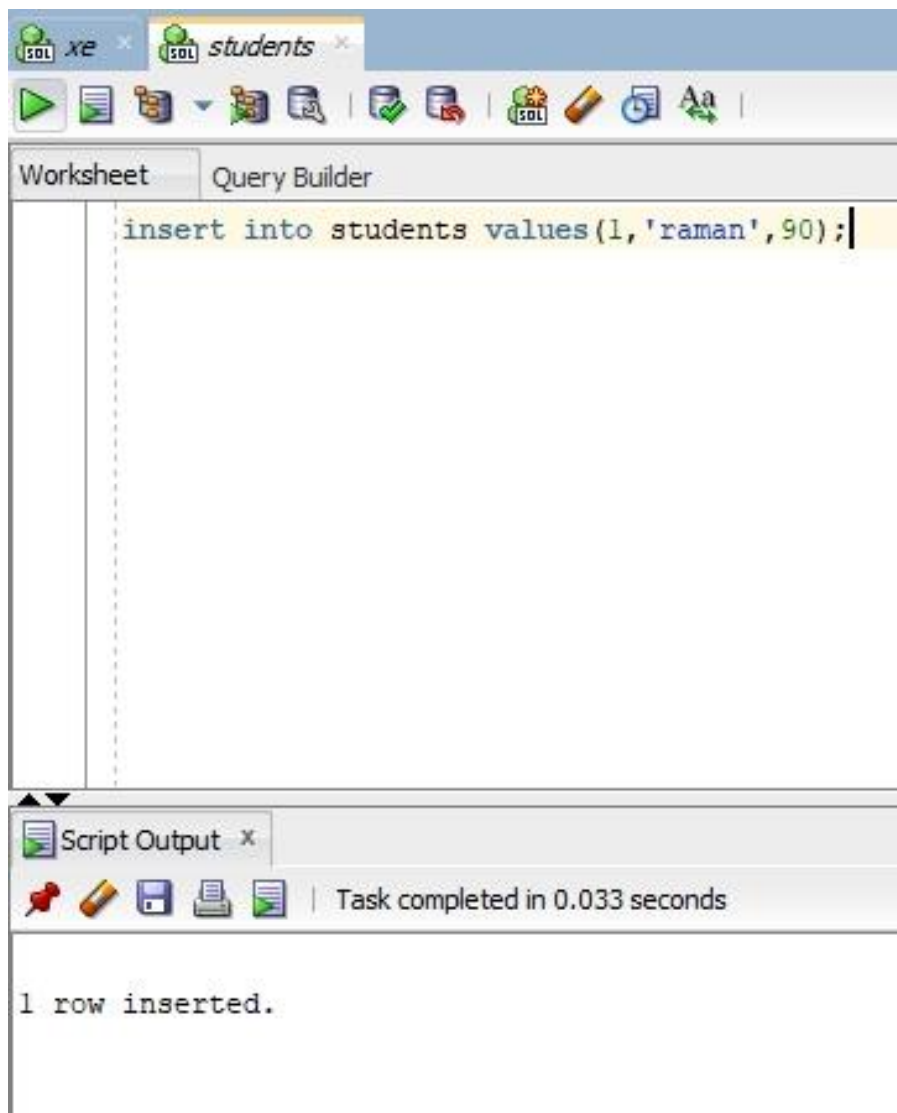


Now write the following sql command to insert a record in table students.

```
insert into students values(1,'raman',90);
```

Now a record will be inserted in table students with rollno as 1 , name as raman and marks as 90.

You will see the following output












Now write command to view all the records in table students.

`select * from students;`

You will see the following output

SQL xe

SQL students







Worksheet

Query Builder

```
select * from students;
```

Script Output x

Query Result x



SQL | All Rows Fetched: 1 in 0.038 seconds

| ROLLNO | NAME | MARKS |
|--------|---------|-------|
| 1 | 1 raman | 90 |