CSCE 5350.001

Fundamentals of Database Systems

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Project Description

Fox Studios company produces movies. Site locations and buildings are chosen based on movie scripts. Company can store data of movies, actors details that acted in the particular movie, it's script, where it was shot and a list of sponsoring companies. Company can use this database to query required data at any given time. Additionally, employees and their payroll data are stored in database.

Entities:

1. Movies
2. Artists
3. Movie Script Inventory
4. Sponsoring Companies
5. Site Locations
6. Buildings
7. Employees
8. Payroll
9. Songs
10. Genre

Attributes identified for the Entities listed:

- Movies
  - movie_id
  - title
  - rating
  - date_of_release
  - duration
- Artists
  - artist_id
  - name
  - date_of_birth
  - age → derived attribute from date_of_birth
- Movie Script Inventory
  - script_id
  - name
  - shot_date
- Sponsoring Companies
  - company_id
  - name
- Site Locations

- location_id
- name
- address

❖ Buildings
- building_id
- name

❖ Employees
- employee_id
- name
- designation
- phone_no

❖ Payroll
- payment_id
- employee_id
- salary
- cost_to_company

❖ Songs
- song_id
- title
- singer_name

❖ Genre
- genre_id
- name

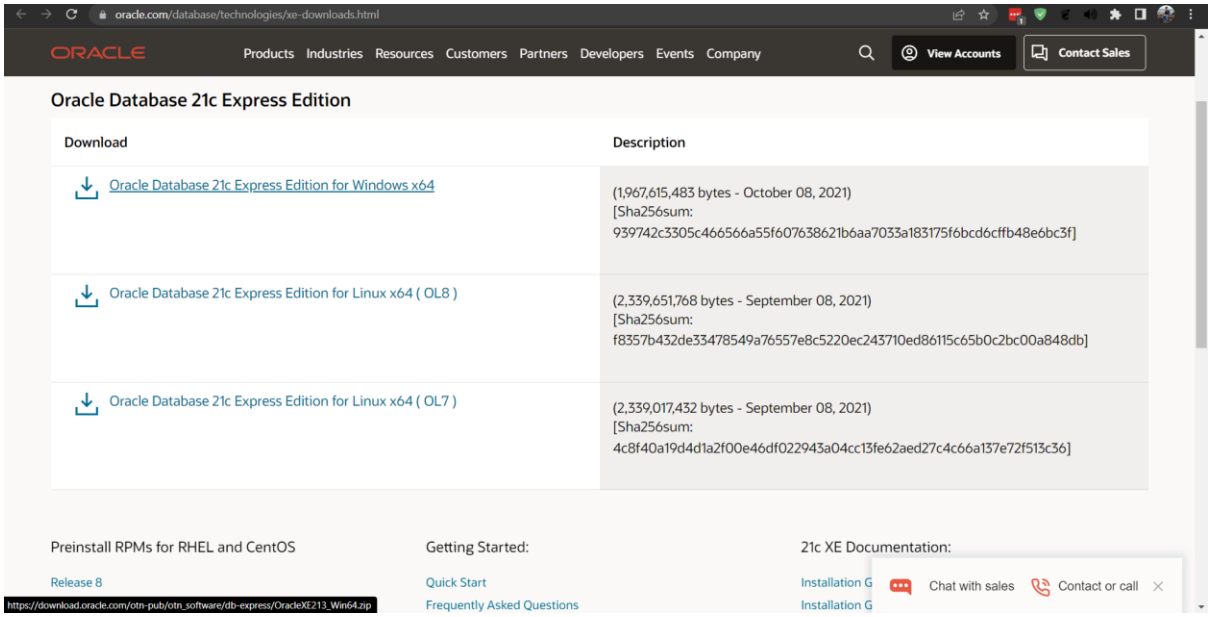
Relationships Identified between Entities:

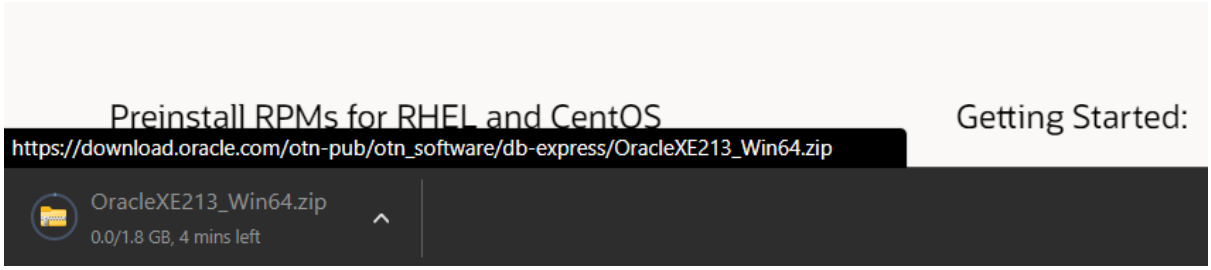
- Artists and Movies entities are related with "Acts in" relation and has many-to-many relationship. "Acts in" relation contains attributes movie_id, artist_id and role_name. Each artist can act in multiple movies and each movie can contain multiple artists resulting in many-to-many relationship.
- Movies and Songs entities are related with "Contains" relation and has one-to-many relationships. Each movie may contain 0..n songs and each song is unique for the movie, hence resulting in one-to-many relationship.
- Movies have "script stored in" Movie Script Inventory and has one-to-one relationship.
- Movies are related to Sponsoring Companies with "Produce" relation and has many-to-many relationship. Produce relation contains company_id, movie_id, budget attributes. Each movie can be sponsored by multiple companies and each company can sponsor multiple movies resulting in many-to-many relationship.
- Artists "get paid" by Sponsoring Companies with many-to-many relationship. Get Paid relationship consists of artist_id, company_id, remuneration attributes to define the remuneration paid to artists. Each artist gets paid by multiple sponsoring companies and multiple sponsoring companies can pay single artists resulting in many-to-many relationship.
- Movies are "shot at" different site locations and each site location may be used for different movies hence resulting in many-to-many relationship.
- Each site location "has" multiple buildings associated with it resulting in one-to-many relationship.

- Each movie can be “shot in” different buildings and each building may be used for different movies shooting resulting in many-to-many relationship.
- Employees “manages” Site Locations and has many-to-many relationship where multiple employees manage a single location and multiple locations can be managed by single employee.
- Employee “has” payroll and has one-to-one relationship.

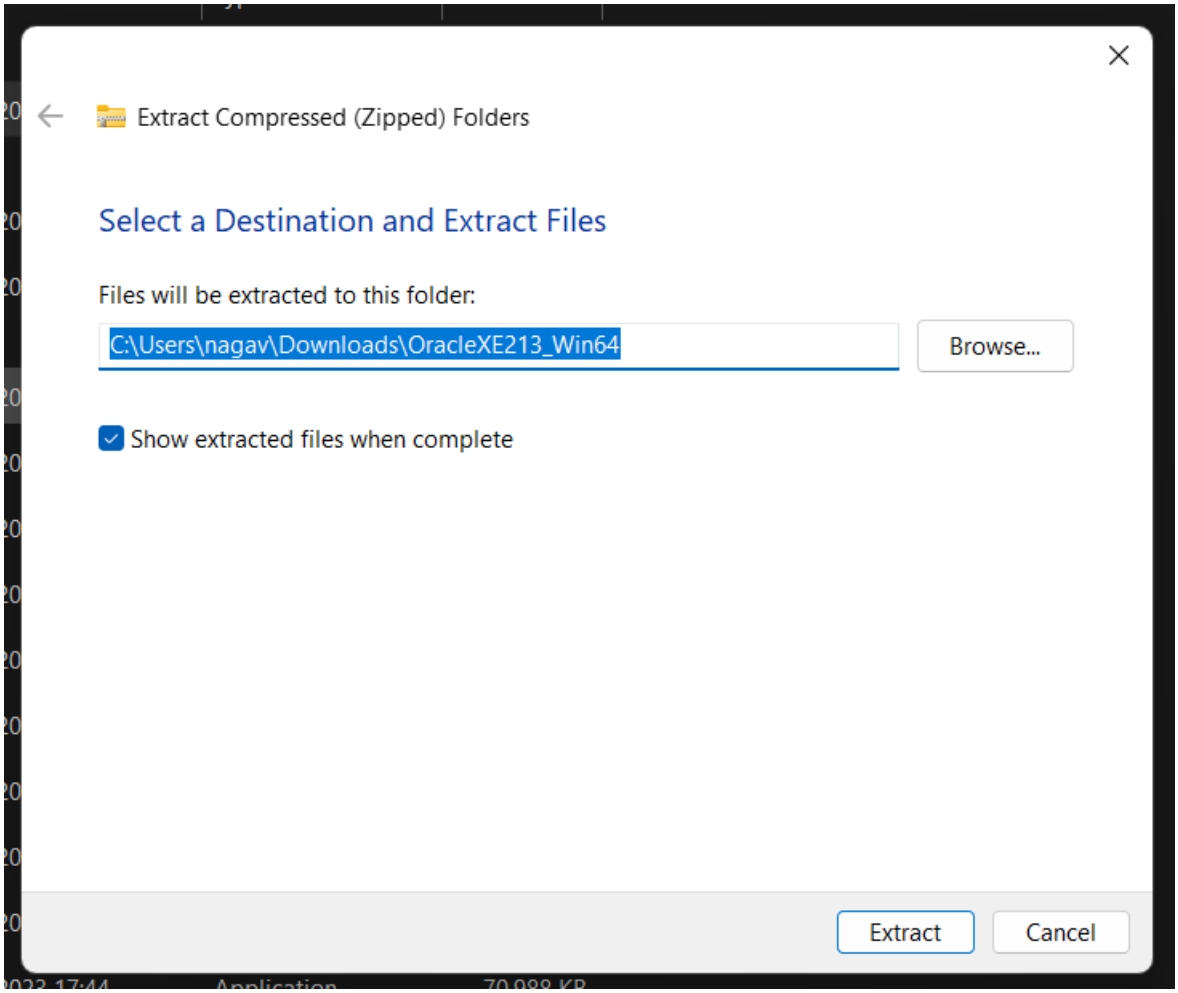
Oracle System Installation

Reach site: https://www.oracle.com/database/technologies/xe-downloads.html to download file for windows installation. Click on Oracle Database 21c Express Edition for Windows x64 to start downloading.

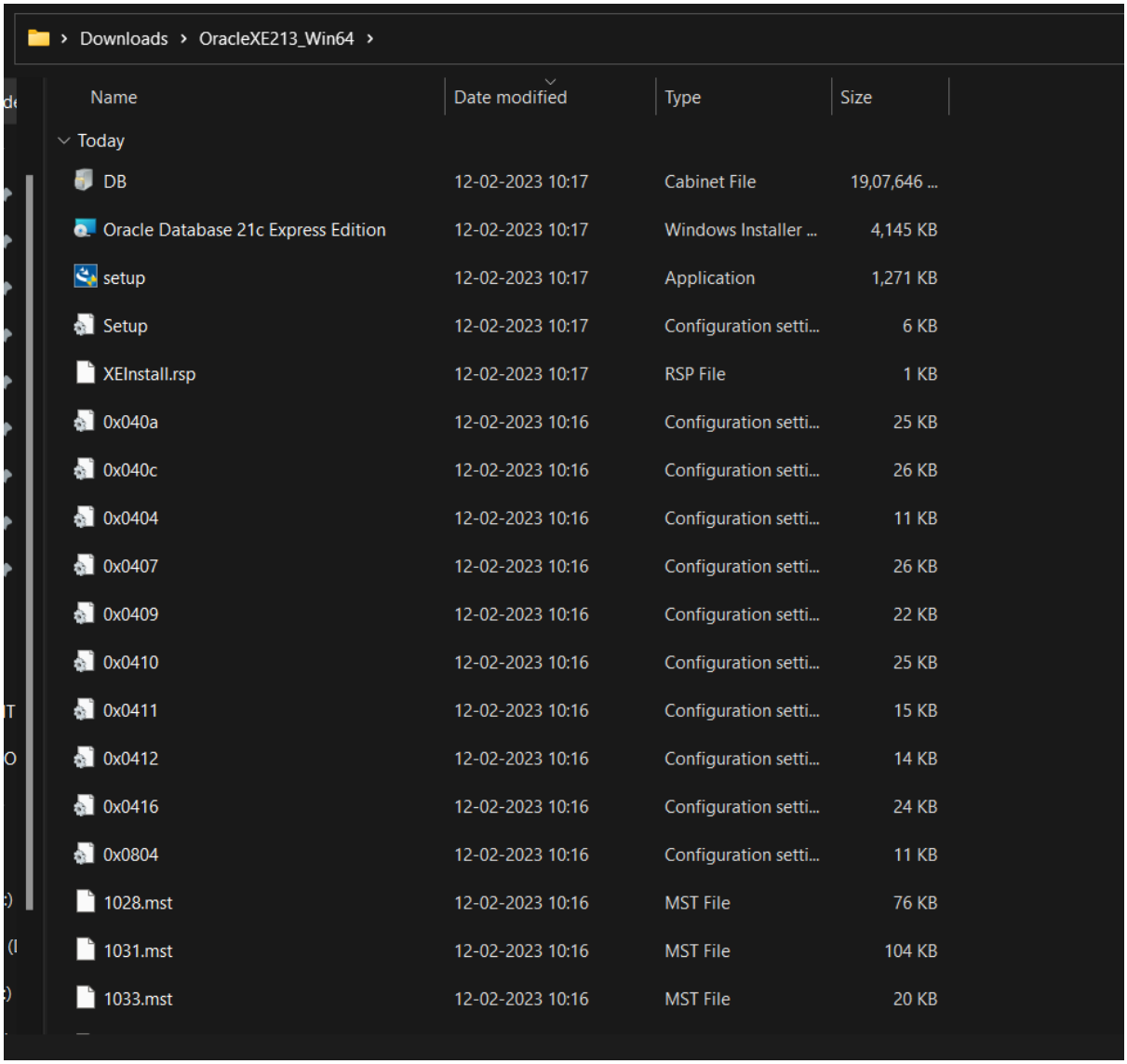




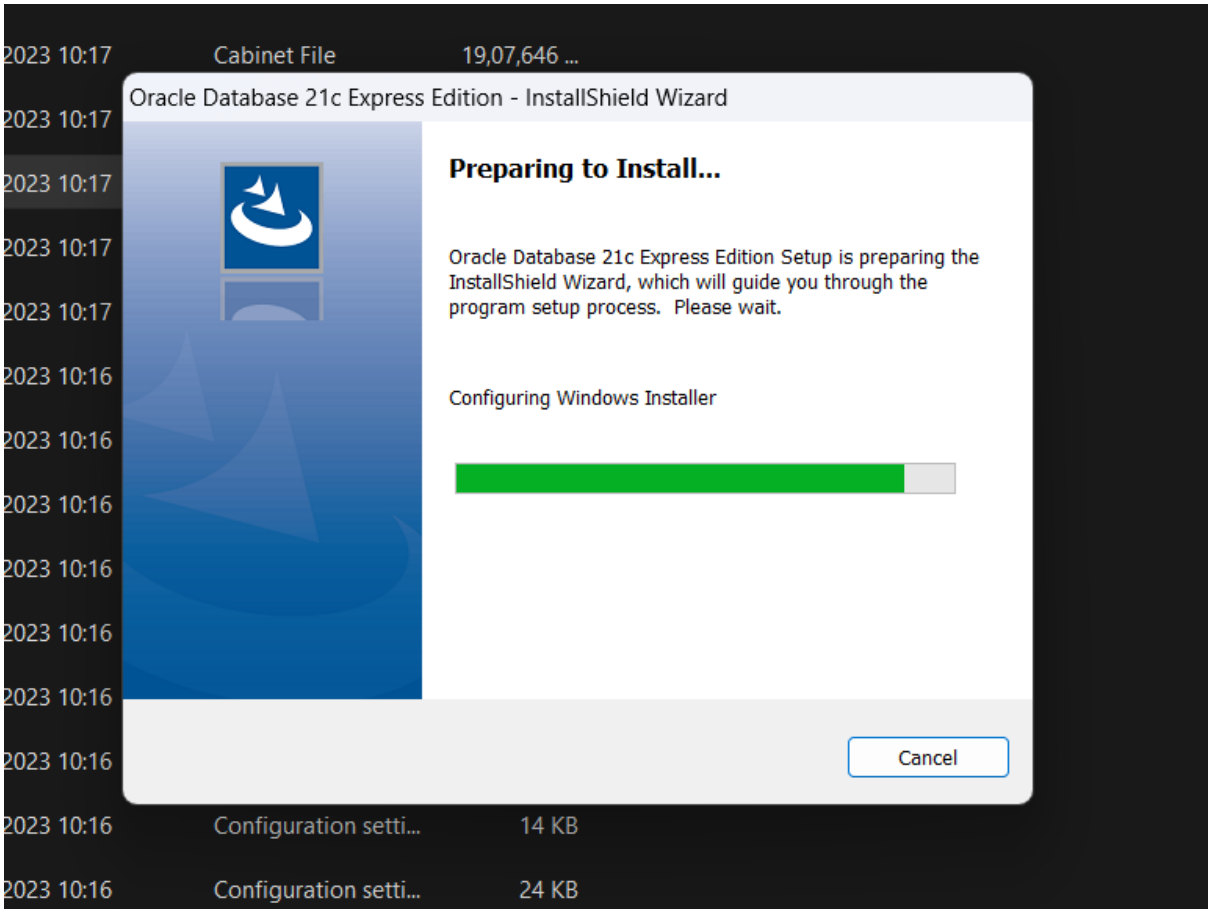
Extracting zip file components

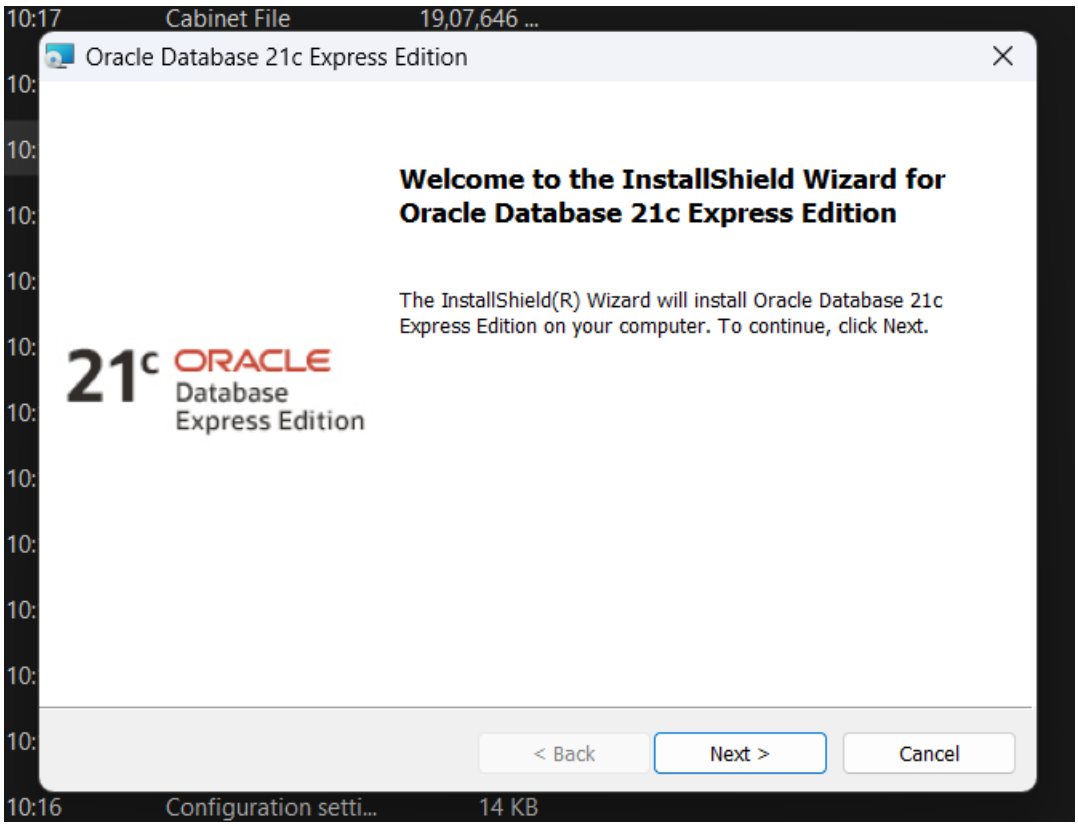


Extracted files.

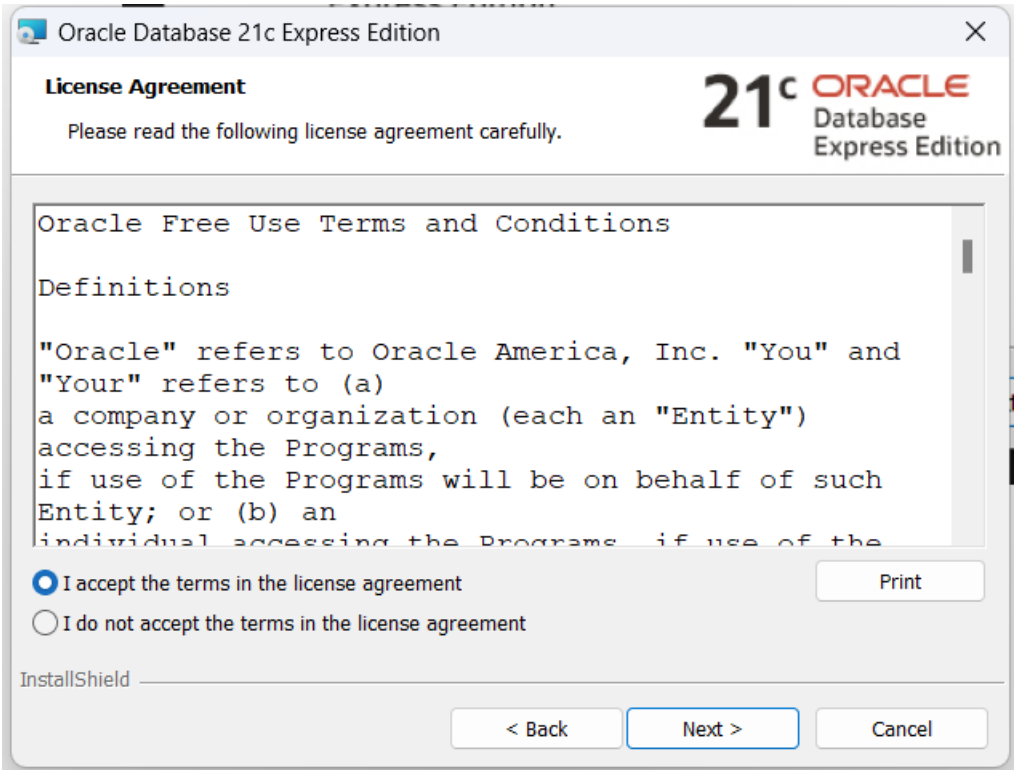


Click on Setup Application to start setup

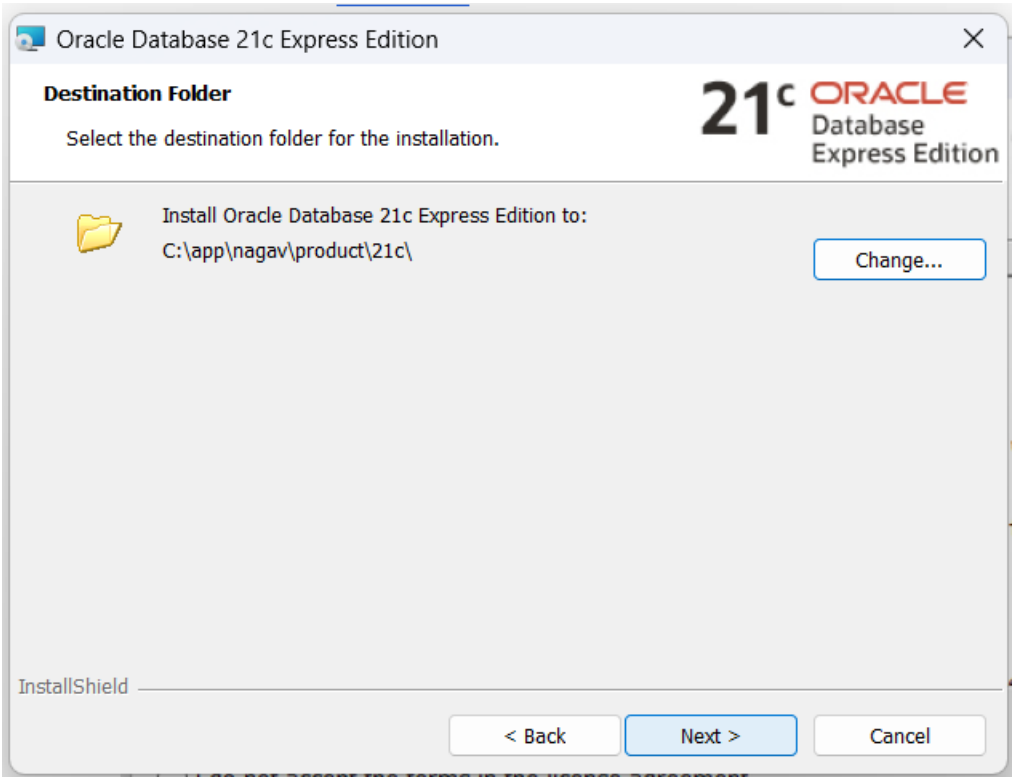

2023 10:17 Cabinet File 19,07,646 ...
Oracle Database 21c Express Edition - InstallShield Wizard
Preparing to Install...
Oracle Database 21c Express Edition Setup is preparing the InstallShield Wizard, which will guide you through the program setup process. Please wait.
Configuring Windows Installer
Cancel
2023 10:16 Configuration setti... 14 KB
2023 10:16 Configuration setti... 24 KB


10:17 Cabinet File 19,07,646 ...
Oracle Database 21c Express Edition
Welcome to the InstallShield Wizard for Oracle Database 21c Express Edition
The InstallShield(R) Wizard will install Oracle Database 21c Express Edition on your computer. To continue, click Next.
21c ORACLE Database Express Edition
< Back
Next >
Cancel
10:16 Configuration setti... 14 KB

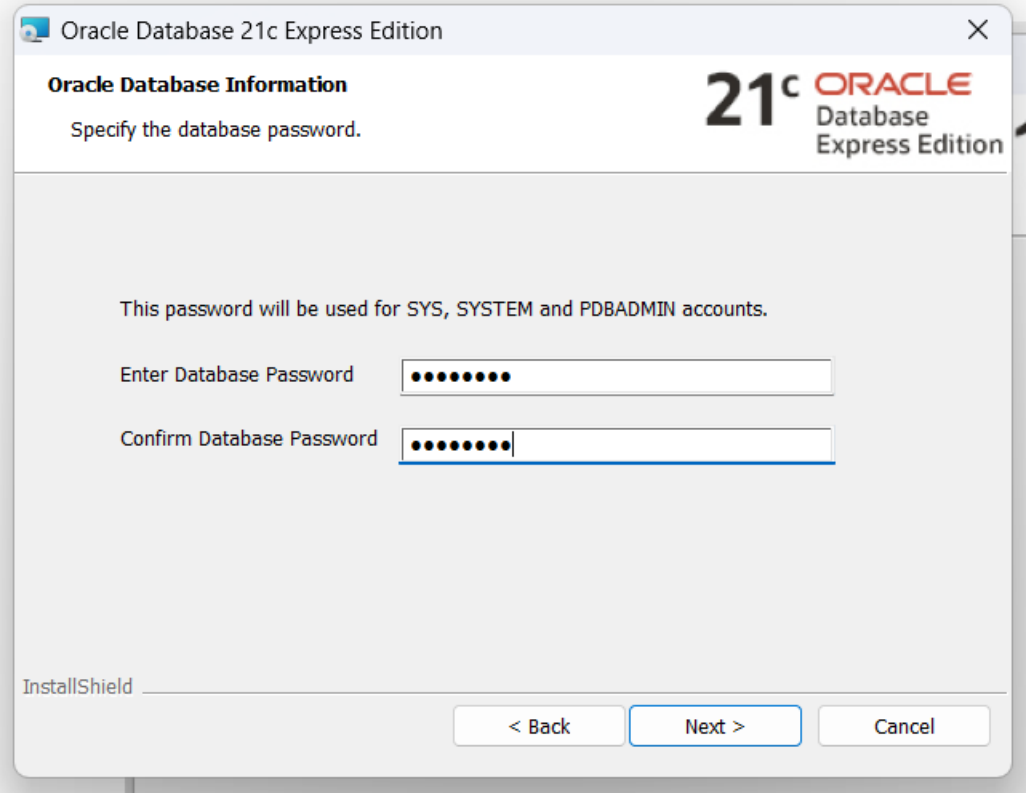
Click Next to continue



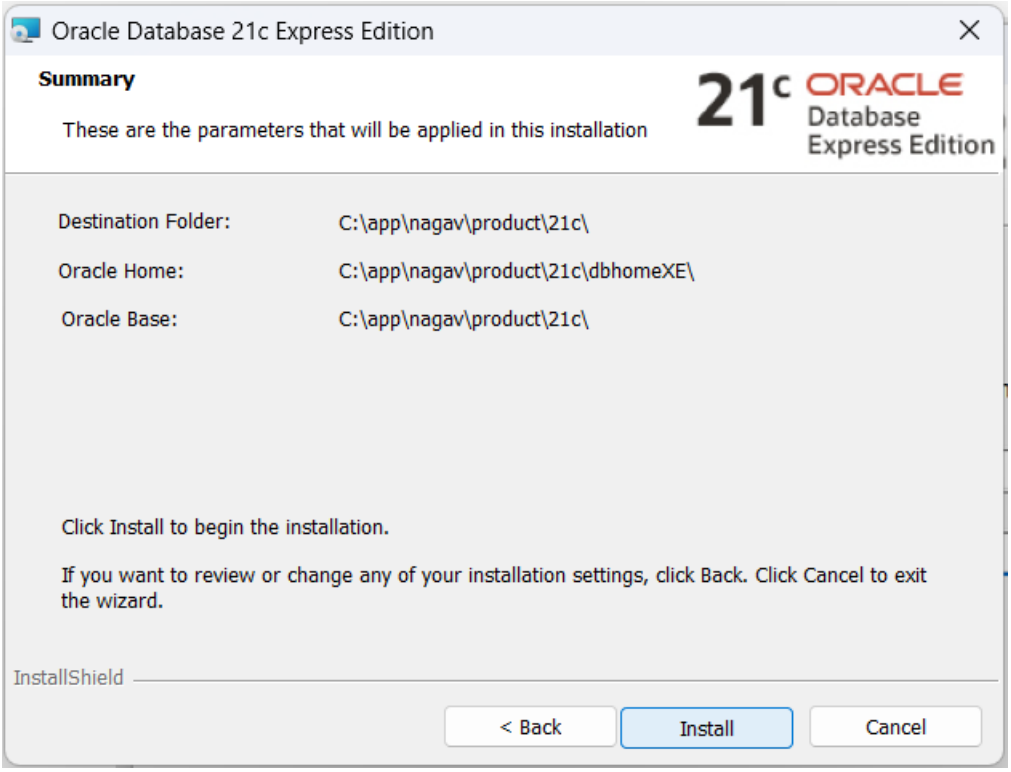
Select “I accept the terms in the license agreement” radio button and click on Next to continue.



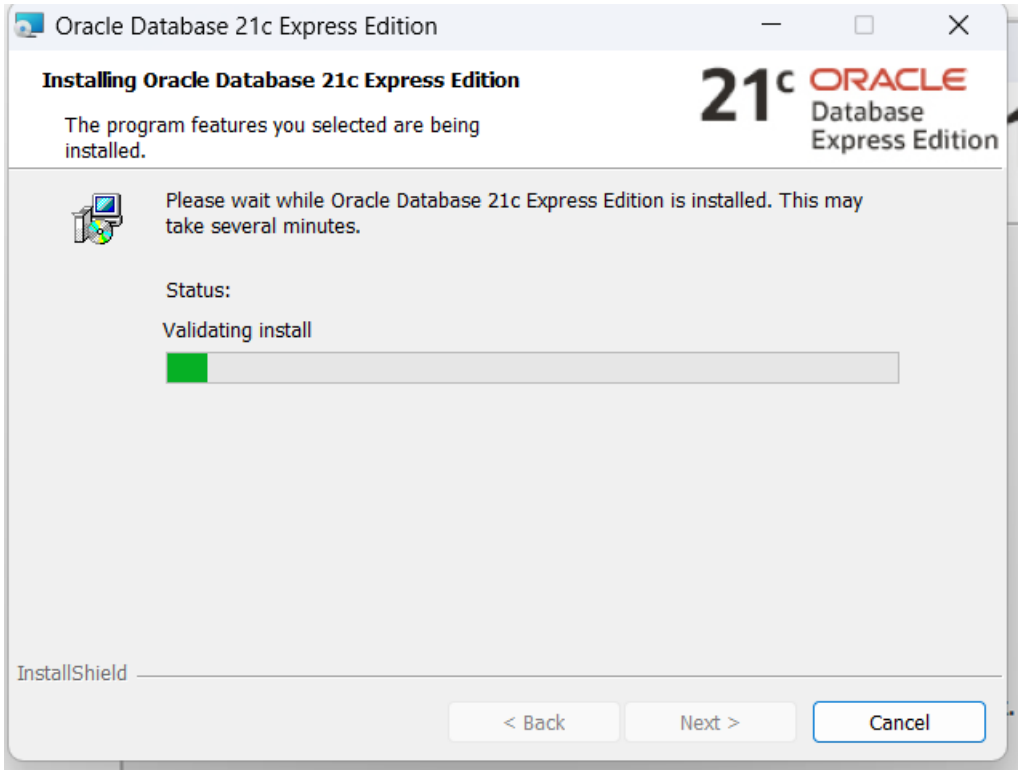
Click on next to continue the installation.

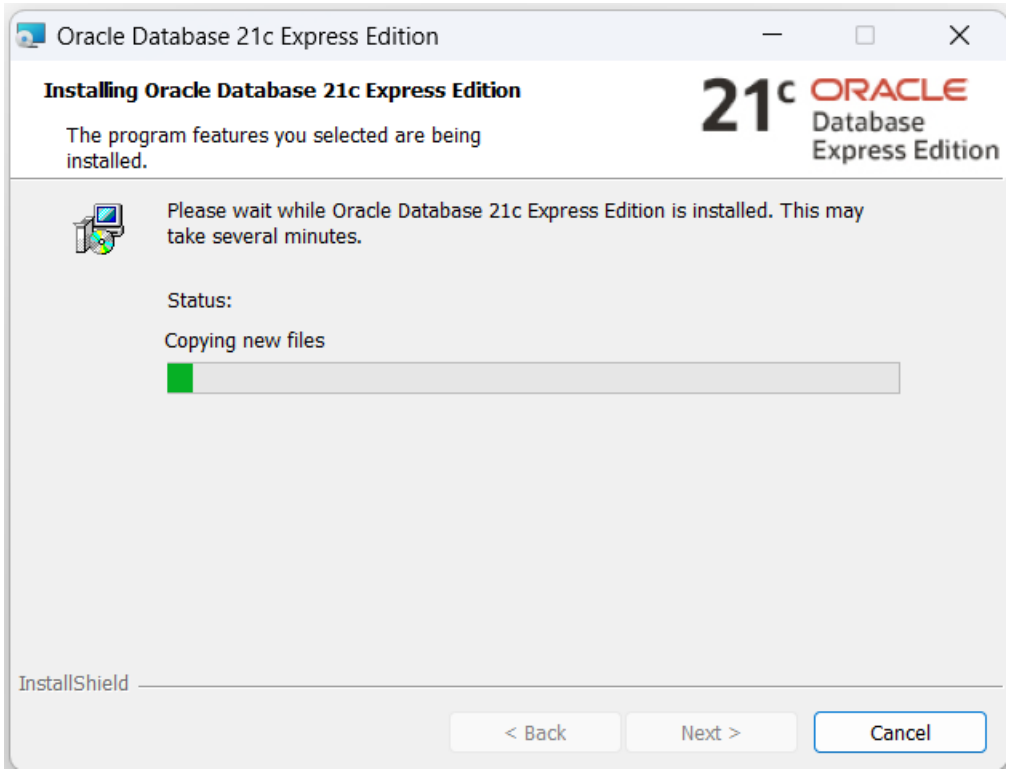


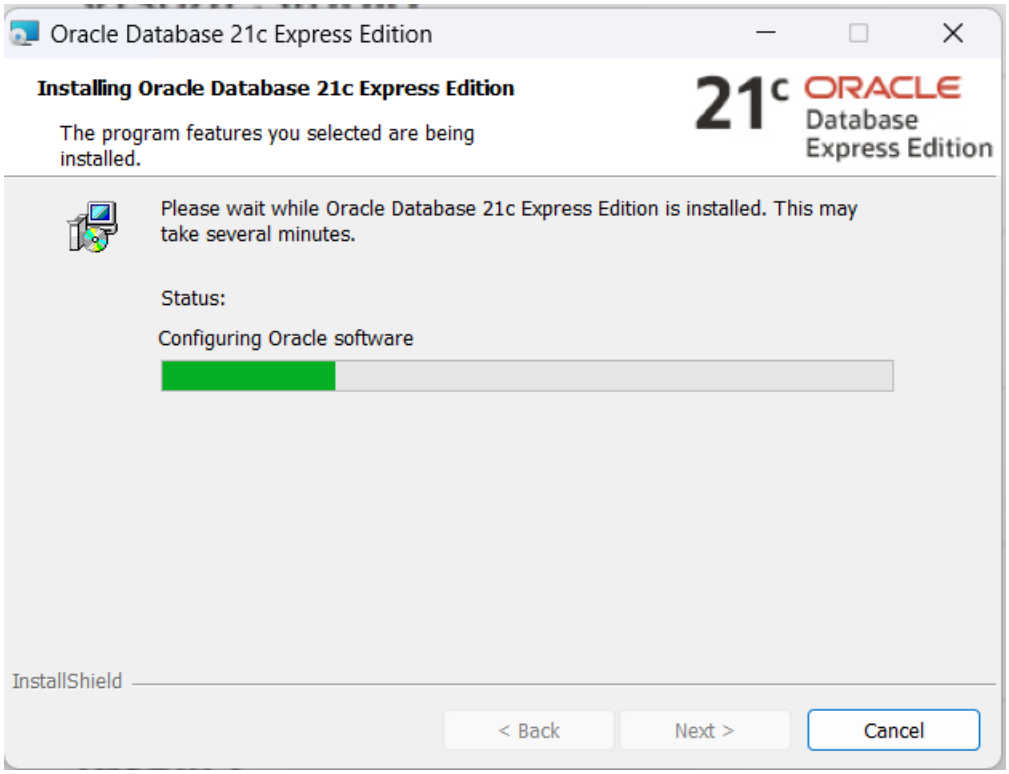
Enter database password and confirm the same in next input field. Click on Next to continue installation.

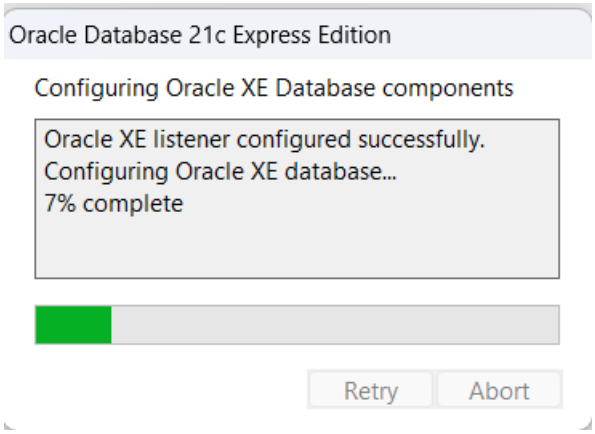


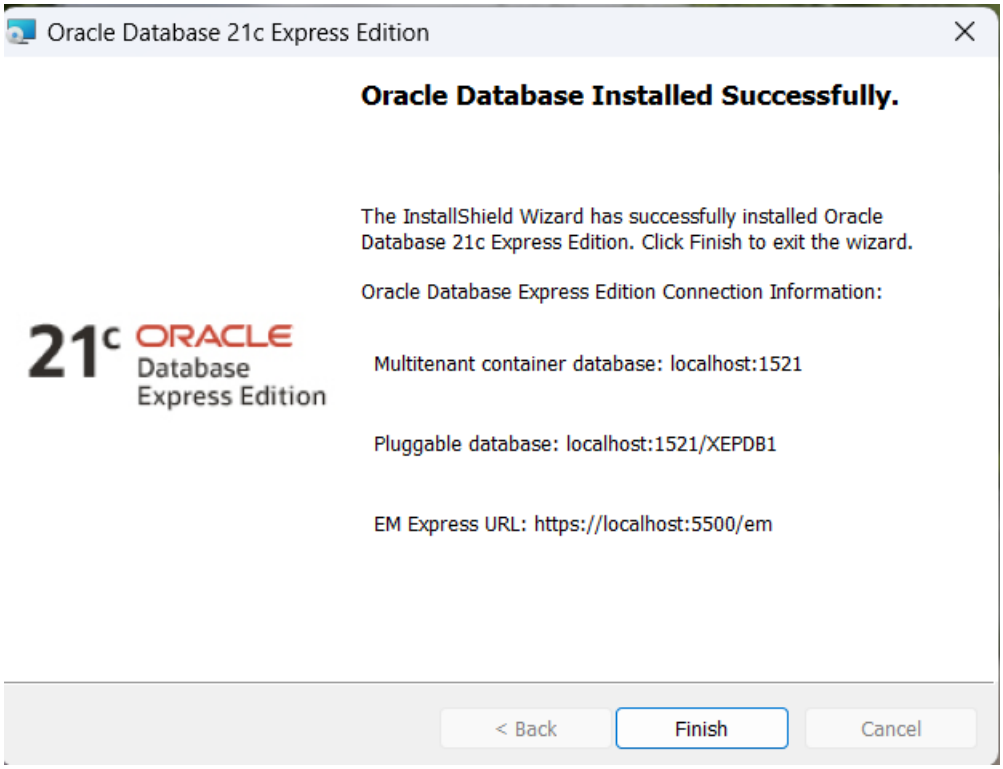
Click on Install button to confirm the installation settings and begin installation process.


Oracle Database 21c Express Edition
Installing Oracle Database 21c Express Edition
The program features you selected are being installed.
21c ORACLE Database Express Edition
Please wait while Oracle Database 21c Express Edition is installed. This may take several minutes.
Status:
Validating install
InstallShield
< Back
Next >
Cancel


Oracle Database 21c Express Edition
Installing Oracle Database 21c Express Edition
The program features you selected are being installed.
21c ORACLE Database Express Edition
Please wait while Oracle Database 21c Express Edition is installed. This may take several minutes.
Status:
Copying new files
InstallShield
< Back
Next >
Cancel

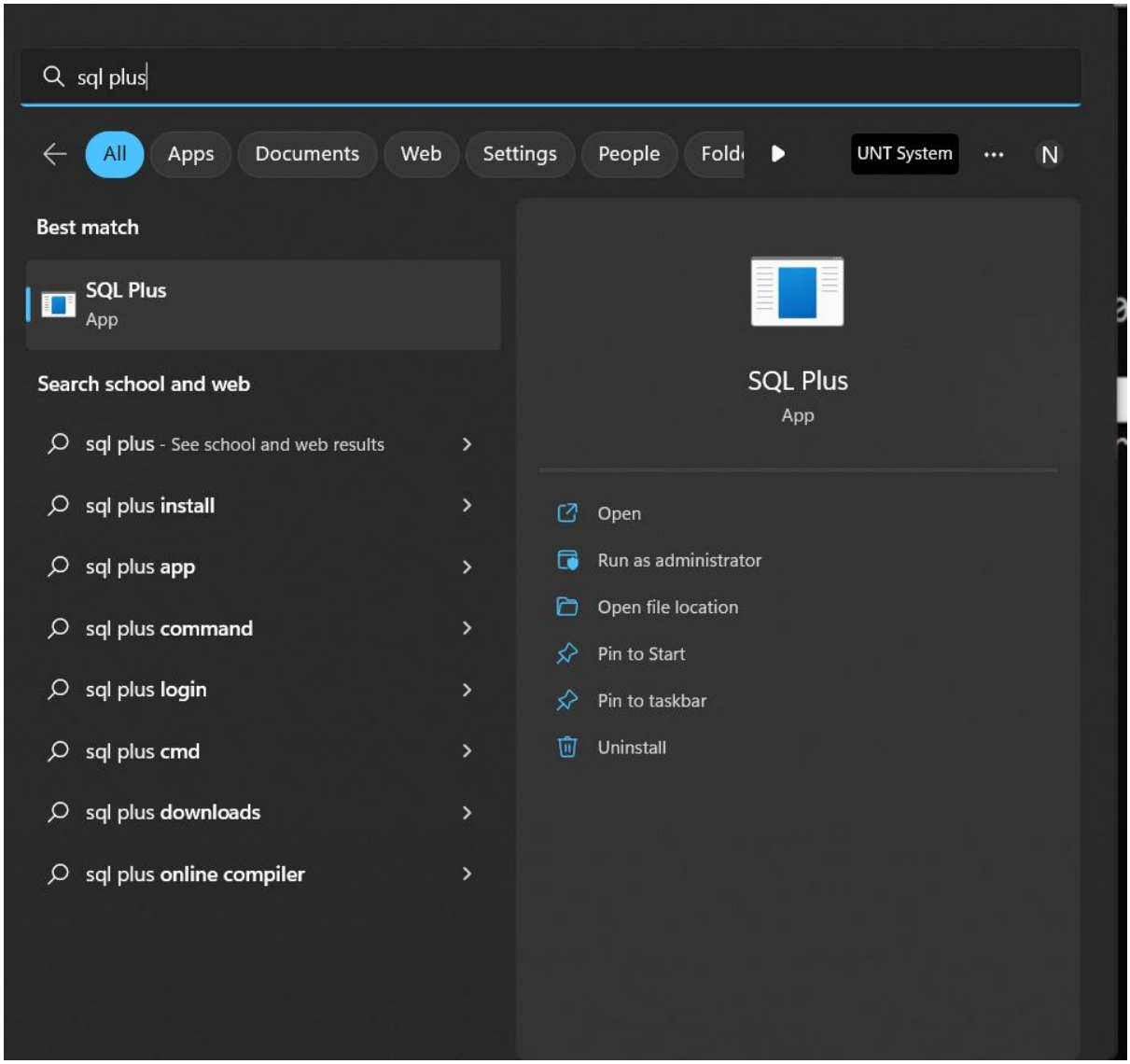

Oracle Database 21c Express Edition
Installing Oracle Database 21c Express Edition
The program features you selected are being installed.
21c ORACLE Database Express Edition
Please wait while Oracle Database 21c Express Edition is installed. This may take several minutes.
Status:
Configuring Oracle software
InstallShield
< Back
Next >
Cancel

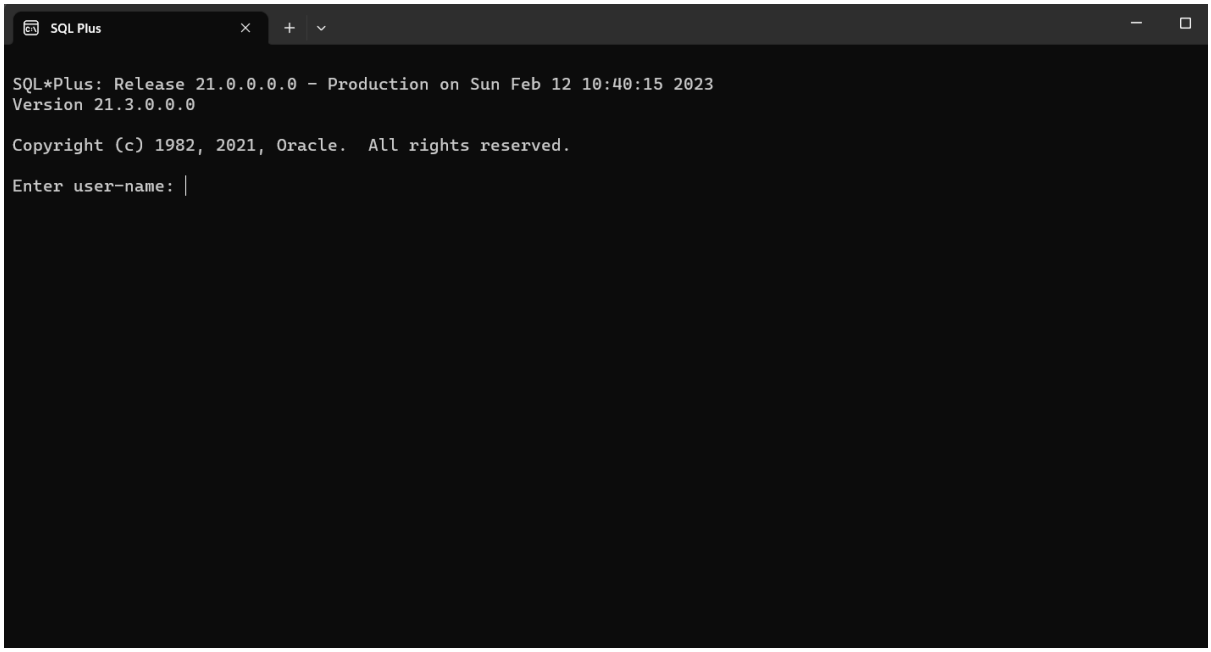

Oracle Database 21c Express Edition
Configuring Oracle XE Database components
Oracle XE listener configured successfully.
Configuring Oracle XE database...
7% complete
Retry
Abort



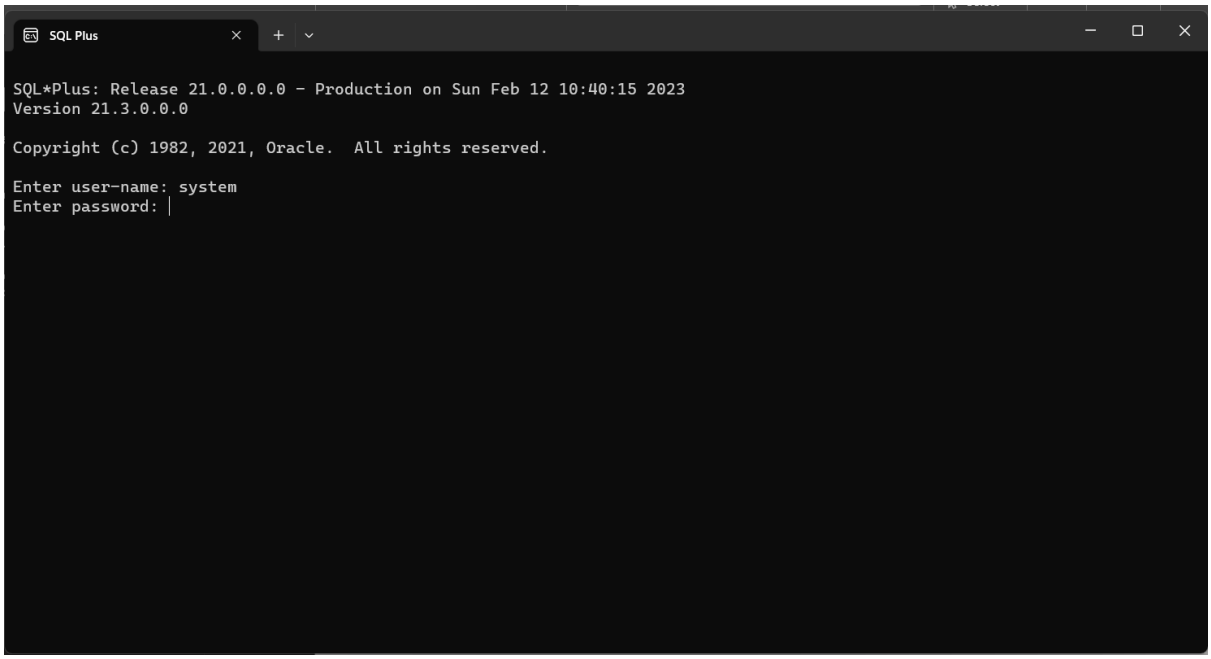
Click on Finish to complete the installation.

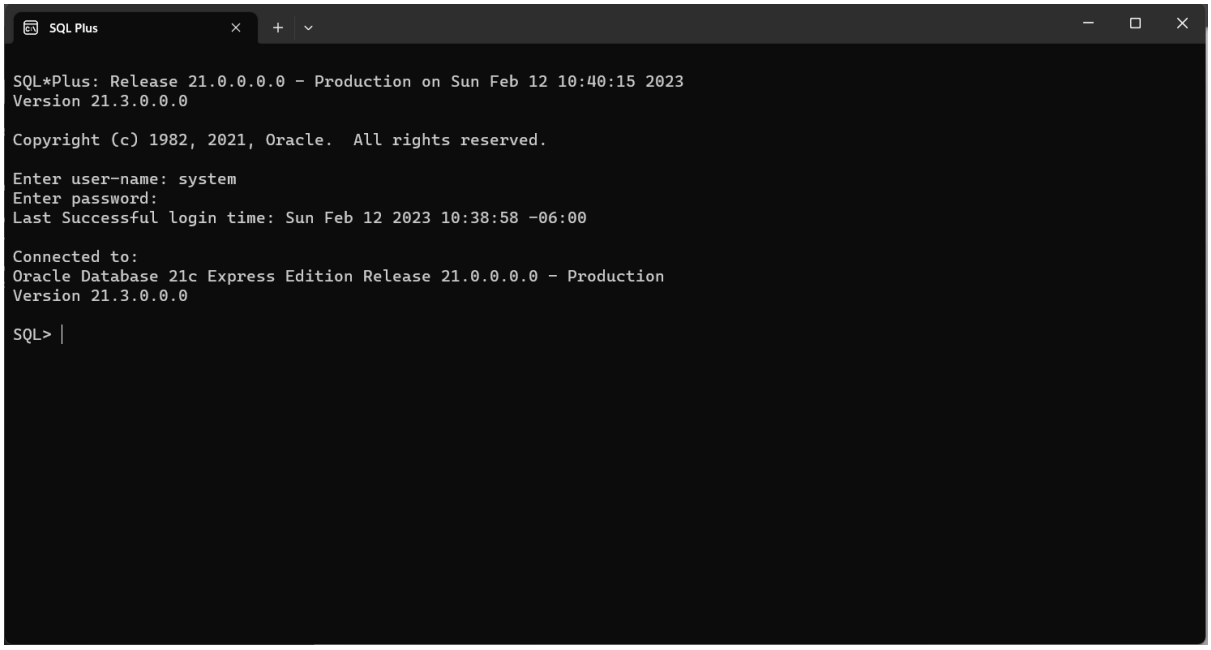
Search for SQL Plus in Windows search to open cmd line tool to login to sql


sql plus
All
Apps
Documents
Web
Settings
People
Fold
UNT System
N
Best match
SQL Plus
App
Search school and web
sql plus - See school and web results
sql plus install
sql plus app
sql plus command
sql plus login
sql plus cmd
sql plus downloads
sql plus online compiler
SQL Plus
App
Open
Run as administrator
Open file location
Pin to Start
Pin to taskbar
Uninstall

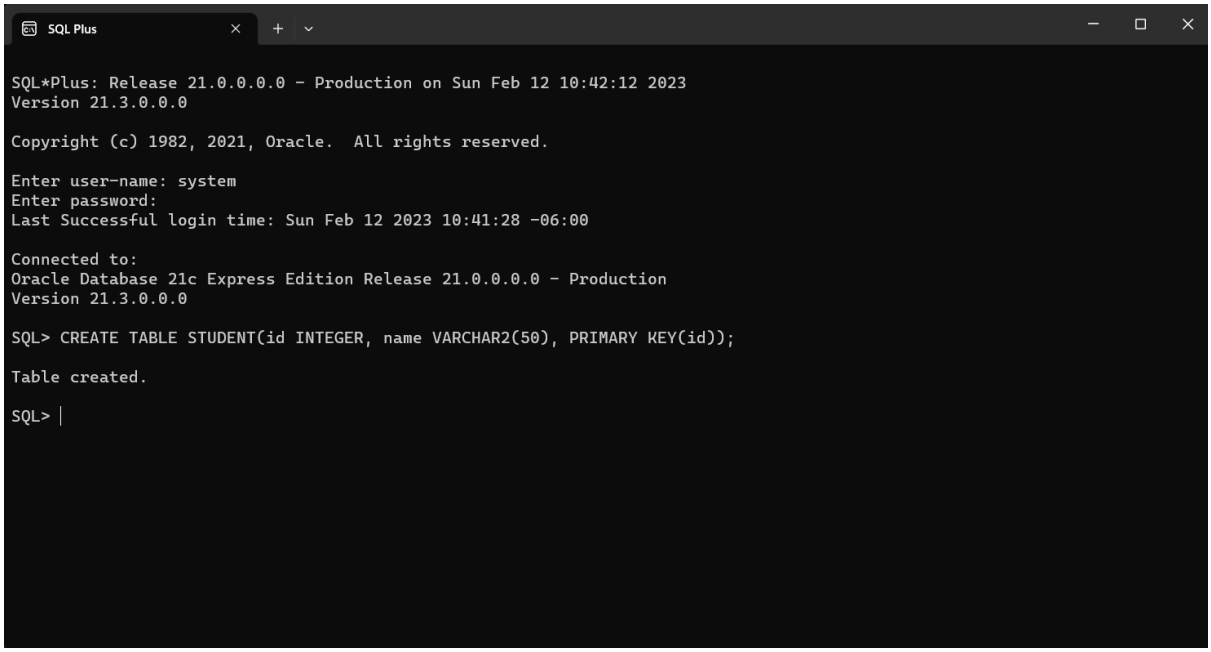


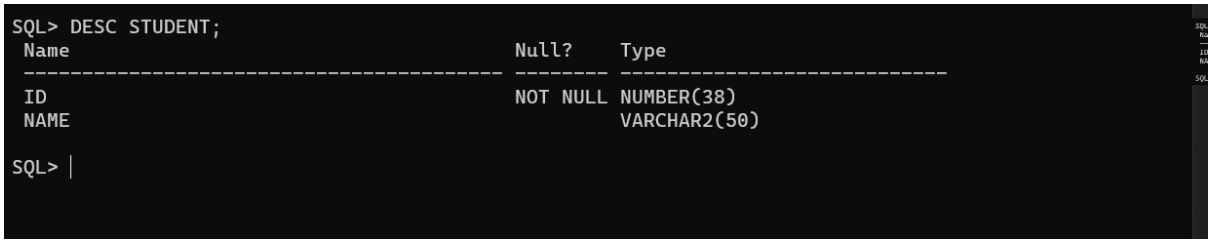
Enter username: system and password we used during installation and click Enter.





Working sample





```
SQL> INSERT INTO STUDENT VALUES (1, 'PRADEEP');

1 row created.

SQL> SELECT * FROM STUDENT;

        ID NAME
---------- --------------------------------------------------
         1 PRADEEP

SQL>
```

3. Individual Contribution

Identified Movies entity and it's attributes like movie_id, title, rating, date_of_release and duration of the movie.

Identified Genre entity and it's attributes like genre id and genre name.

Each movie can have multiple genres and each genre is liked to multiple movies. Movies and Genre are related using many-to-many relationship. Identified "has" relationship between genre and movies.

Contributed "shot in" relationship between movies and buildings entities. This relationship can be used to identify buildings where the movies were shot.