**Installation and configuration of ORCALE APEX 24.1**

**Overview: -**

Oracle Application Express (Oracle APEX) is the low code web application development tool for the Oracle Database. Application Express enables you to design, develop and deploy beautiful, responsive, database-driven applications, either on-premises or in the cloud. Using only a web browser and limited programming experience, you can rapidly develop and deploy professional applications that are both fast and secure for any device, from desktop to mobile.

**Purpose: -**

Integration of Apex with Ebizframe for providing the latest features like dashboard, workflow, changing the login page look and feel, reports and application development etc.

**Version: -**

**Oracle Apex 24.1**

**Pre - requisites: -**

* **ORACLE Database 12c version 12.2.0.2.0 or later.**
* **Requires a JavaScript-enabled browser and supports the current and prior major release of Google Chrome, Mozilla Firefox, Apple Safari, and Microsoft Edge.**

**Installation Steps: -**

1. Create tablespace EBIZ for apex installation (it can be changed according to ERP)

Run the below commands in sqlplus:

**Create Tablespace ebiz datafile 'D:\app\{user}\oradata\orcl\ebiz.ora' Size 200m autoextend on;**

**(NOTE: Ensure that the tablespace must be created inside app database oradata folder else APEX will not detect it while installation)**

1. Now, get the **apex\_24.1\_en.zip** file from the apex installations folder and copy to zip file to D drive.
2. Now, to extract the file right click and choose extract to apex\_24.1\_en folder.

Now the working directory would look like:

**“D:\apex\_24.1\_en\apex”**

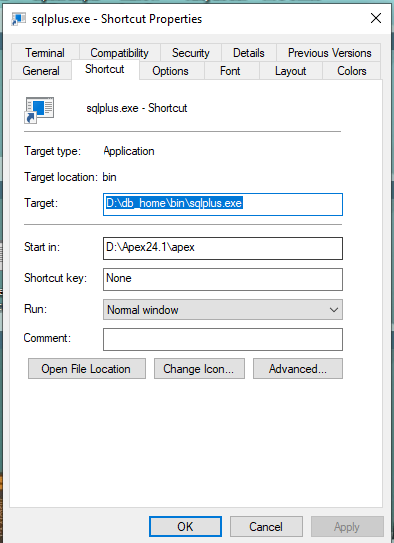
1. After extraction create a shortcut of SQLPLUS on desktop by going to D drive app folder of and then bin folder of database.

Normally it is:

**“D:\app\’user’\product\’db\_version’\dbhome\_1\bin”**

**Here user and db\_version is your system user and database version**

1. Now right click on **sqlplus** file and send to desktop as shortcut
2. Now, go to D drive and go to apex\_24\_1\_en directory **“D:\apex\_24\_1\_en\apex”** and copy the path
3. Now, right click to the sqlplus shortcut you created on desktop and go to properties and paste the link in **start in**:



1. Now, click on ok
2. Now open sqlplus shortcut we just created and in username use: --- **sys as sysdba** and in password hit enter
3. Now run the below commands

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**ALTER PROFILE DEFAULT LIMIT PASSWORD\_LIFE\_TIME UNLIMITED;**

**ALTER USER apex\_public\_user IDENTIFIED BY password ACCOUNT UNLOCK;**

**ALTER USER SYSAUX IDENTIFIED BY password ACCOUNT UNLOCK;**

**ALTER USER ANONYMOUS ACCOUNT UNLOCK;**

**---------------------------------------------------------------------------------------------------------------**

1. **In the above command if sysaux user is not found then leave it as it is and continue further**
2. Now, run

**-----------------------------------------------------------**

**Spool on**

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**--------(then run below command)**

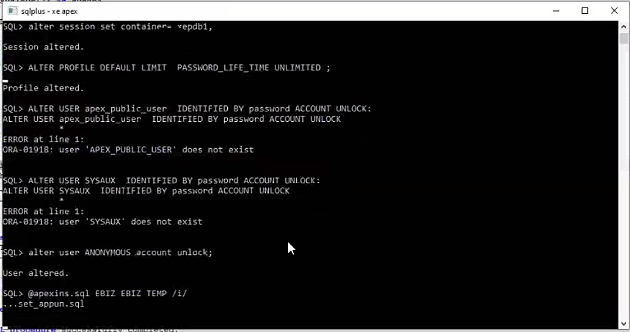
**-------------------------------------------------------------**

**@apexins.sql EBIZ EBIZ TEMP /i/**

**----------------------------------------------------------------**

**(Note: Here first EBIZ is the ebiz tablespace name we just created in step 1, second EBIZ is ebiz tablespace filename and TEMP is the database temporary tablespace, you can also use ERP temporary tablespace here, instead of TEMP but remember ERP temporary tablespace must be created inside app database oradata folder else APEX will not detect it while installation)**

1. The above command takes 20-30 mins according to the machine’s performance



1. Now, after installation when sql prompt returns run next command,

**------------------------------------------------**

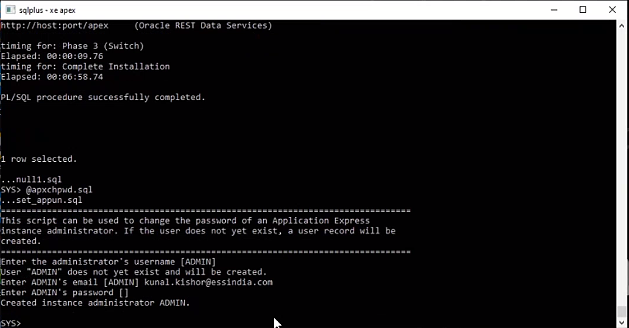
**@apxchpwd.sql**

**-----------------------------------------------**

**For username hit enter,**

**for email id enter the desired email id,**

**For password enter- “Password$1234” and hit enter**



1. Now, run the below command:

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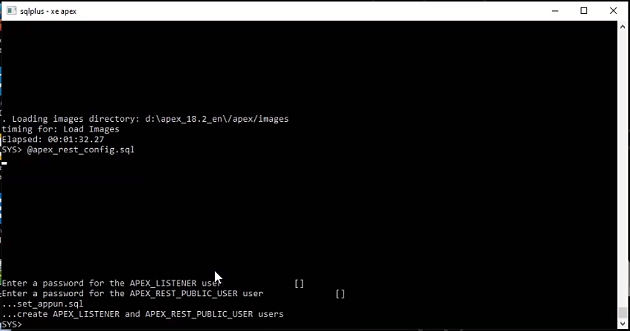
**@apex\_rest\_config.sql**

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**And for apex\_listener enter password- “Password$1234”,**

**for apex\_rest\_public\_user- “Password$1234”**

**NOTE: This above command is used for ORACLE Rest data Services this must be run while apex installation**



**Note: Apex 24.1 will not run without the installation of ords.**

**After the installation of 24.1 apex, we need to install the ords-ords-24.1.0.177.0931**

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**Installation and configuration of ORDS 24.1 with Oracle APEX 24.1**

**Overview: -**

Oracle REST Data Services (ORDS), formerly known as the APEX Listener, allows APEX applications to be deployed without the use of [Oracle HTTP Server (OHS) and mod\_plsql](https://oracle-base.com/articles/misc/oracle-application-express-apex-installation" \l "ohs-configuration) or the [Embedded PL/SQL Gateway](https://oracle-base.com/articles/misc/oracle-application-express-apex-installation" \l "epg-configuration). ORDS version 3.0 onward also includes JSON API support to work in conjunction with the [JSON support in the 12c database](https://oracle-base.com/articles/12c/json-support-in-oracle-database-12cr1). ORDS can be deployed on WebLogic, Glassfish or Tomcat.

The Oracle Application Express architecture requires some form of web server to proxy requests between a web browser and the Oracle Application Express engine. Oracle REST Data Services satisfies this need, but its use goes beyond that of Oracle Application Express configurations. Oracle REST Data Services simplifies the deployment process because there is no Oracle home required, as connectivity is provided using an embedded JDBC driver.

**Purpose: -**

ORDS is a Java EE-based alternative for Oracle HTTP server which allows a great deal of functionality including command line-based deployment and configuration, enhanced security, and most importantly RESTful Web Services, also ORDS must be used for APEX PDF report printing and sometimes with some of the PLUGINS that require ORDS connection with apex applications, ORDS must be used for 3-tier system like where Database and Application servers are on different machines.

**NOTE: - If there is 3-tier system then ORDS must be installed on application server, and if the database and application server are on the same machine then ORDS can be installed on the same machine as well.**

**Version: -**

**Oracle ORDS-24.1.0.177.0931**

**Pre-requisites: -**

* **ORACLE Database 12c version 12.2.0.2.0 or later.**
* **Requires a JavaScript-enabled browser and supports the current and prior major**

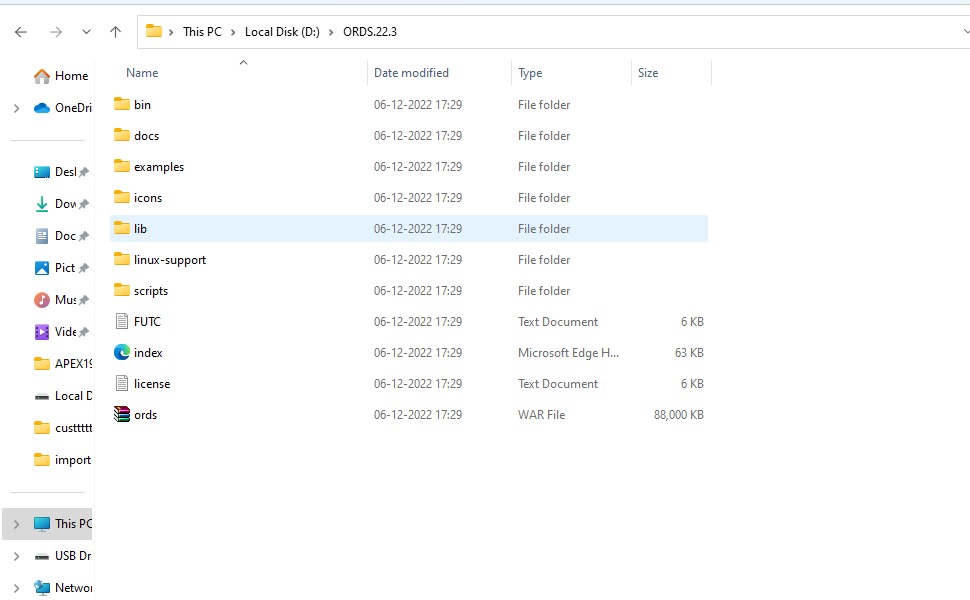
**Release of Google Chrome, Mozilla Firefox, Apple Safari, and Microsoft Edge.**

**Oracle APEX 24.1 installed on the database.**

**NOTE: - If you have database and application server on the different machines then please copy this “apex\_24.1\_en” folder in D drive from database server to D drive in the application server and then install ORDS on the application server to connect apex from database server to application server.**

**Installation and Configuration: -**

1. Now, Get the **ORDS-ords-24.1.0.177.0931.zip** file from the ORDS installation folder/APEX installation folder.
2. Create a folder in D drive namely ORDS.24.1 and double click the above zip file and click extract to on the top of WINRAR window and extract to the folder ORDS.24.1 in D drive
3. Contents would look like:



1. Now in the same folder from where you got the zip file for ORDS.24.1 get the file

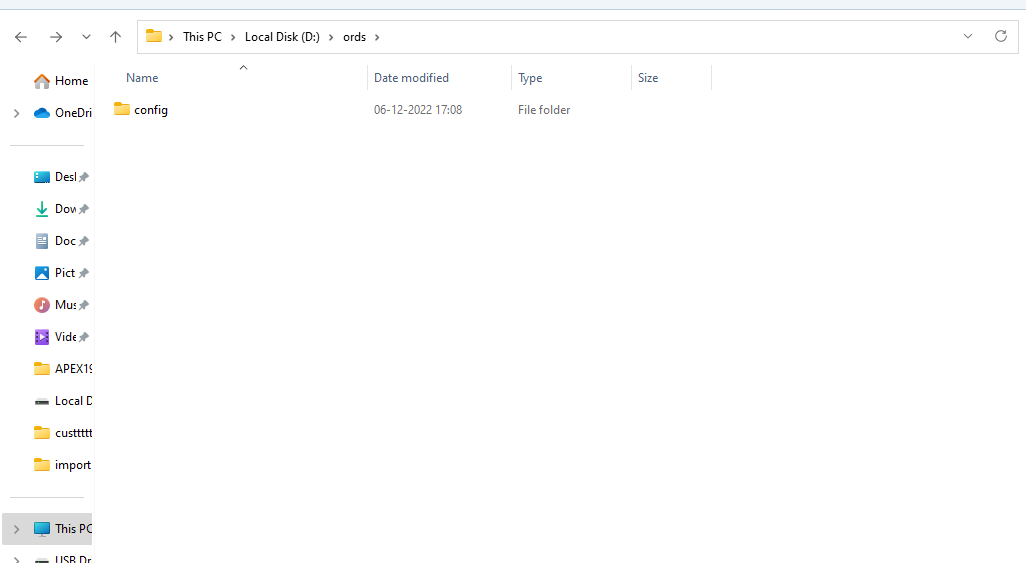
**jdk-12\_windows-x64\_bin.exe**

1. Double click to run the java JRE setup and follow the instruction and install

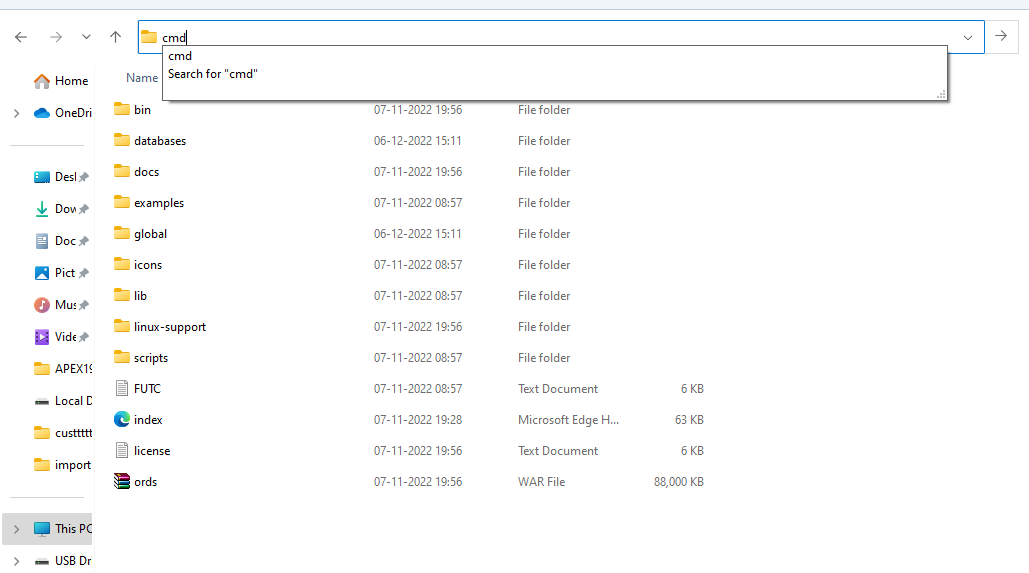




1. Now, after installation of java
2. Create folder as D:\ords\config(create folder ords and inside it create another folder config)



1. Go to D drive and go to ORDS.24.1 folder open the folder and in the address bar type cmd and hit enter and command prompt will open like this:

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1. Now, in the command prompt window type

**---------------------------------------------------------------------------------**

**java -jar ords.war --config D:\ords\config install**

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**NOTE: - For this version of ORDS jdk 12 minimum is required, if on running above command JAVA is not detected make sure java is set in environment variable and if then also it does not work, then instead of the above command run:**

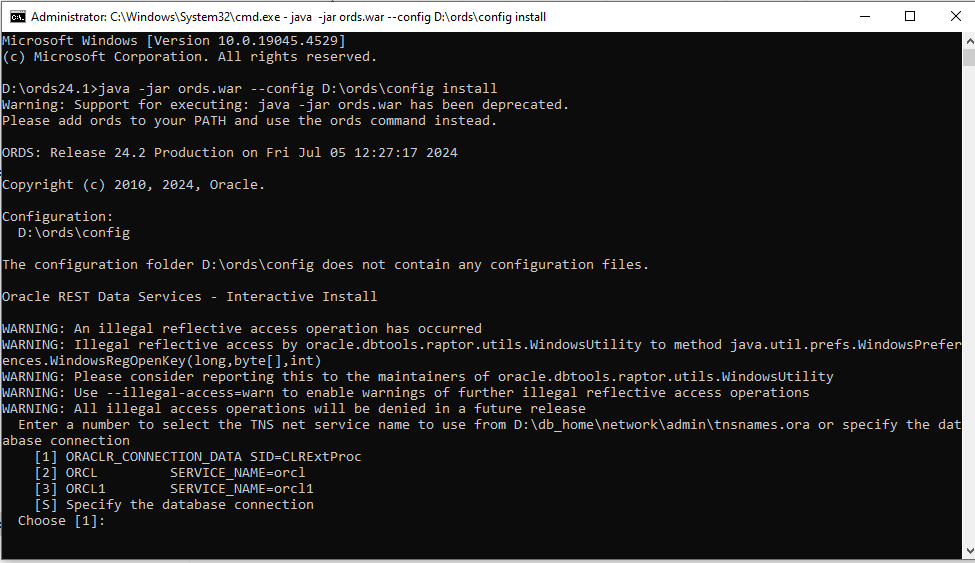
**-----------------------------------------------------------------------------------**

**“JAVA \_PATH” -jar ords.war --config E:\ords\config install**

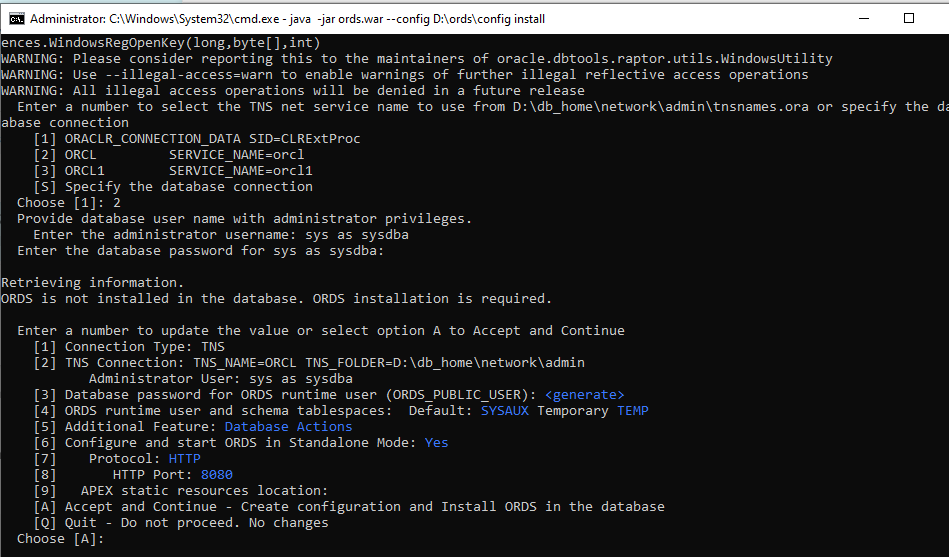
**(in JAVA\_PATH enter java bin folder path)**

**For example :c:\java\_1.8.xx\bin\java -jar ords.war --config E:\ords\config install**

**----------------------------------------------------------------------------------**



1. Let it choose default, just hit enter

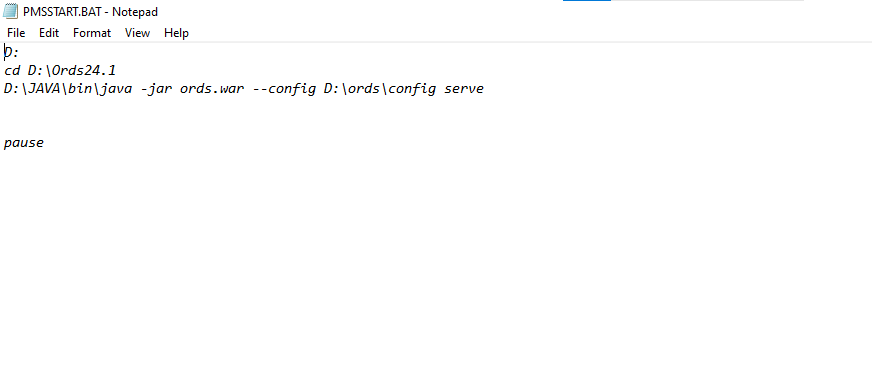


>>Now ask administrator username and password so just fill and hit enter.

1. Now show all the details when you need to change anything then choose number and hit enter.
2. Other wise choose **9** for apex static resource location file for that navigate to D: drive apex\_24\_1\_en folder apex folder and images folder inside it and copy the path generally it would look like:

**D:\apex\_24\_1\_en\apex\images**

1. Just hit enter.
2. Now check all details if all correct then Type **A** and just hit enter.
3. Exit cmd on this state.
4. Now, in the apex folder find the batch file PMSSTART.BAT and edit with notepad and it should look like below, if it does not look like below change as shown in screenshot below



1. Now open the sqlplus shortcut created on desktop while installing the apex 24.1 and for username – sys as sysdba and password as hit enter
2. Now run the below command as follows:

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**alter user APEX\_240100 identified by Password$1234 account unlock;**

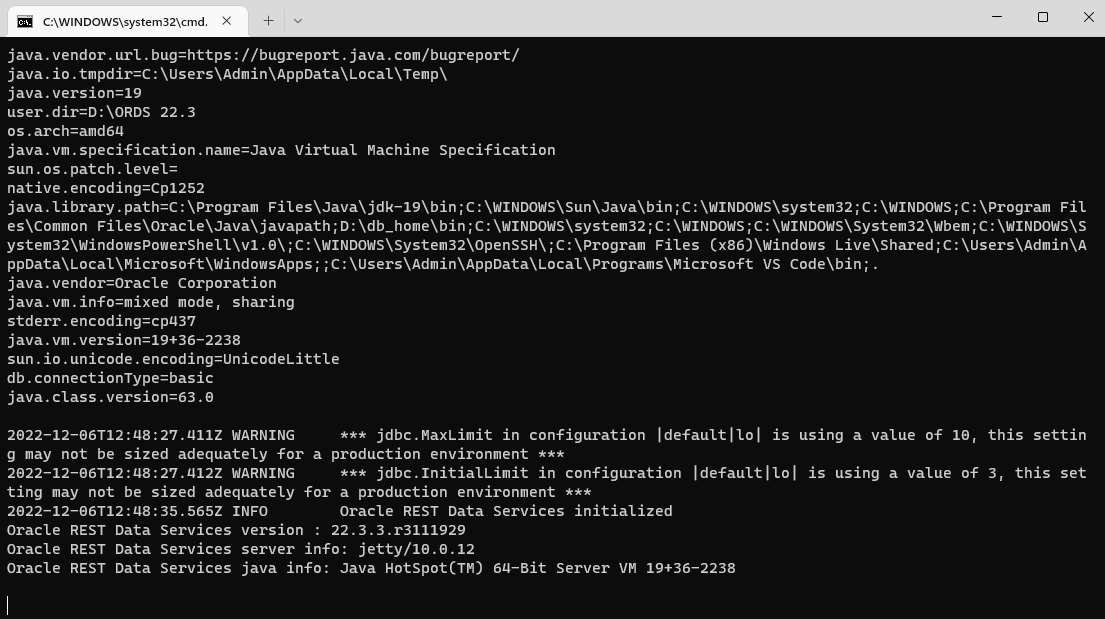
**alter user APEX\_REST\_PUBLIC\_USER identified by Password$1234 account unlock;**

**alter user APEX\_INSTANCE\_ADMIN\_USER identified by Password$1234 account unlock;**

**alter user APEX\_PUBLIC\_USER identified by Password$1234 account unlock;**

**alter user APEX\_LISTENER identified by Password$1234 account unlock;**

1. Now, run PMSSTART.BAT file as administrator and the window will look like:



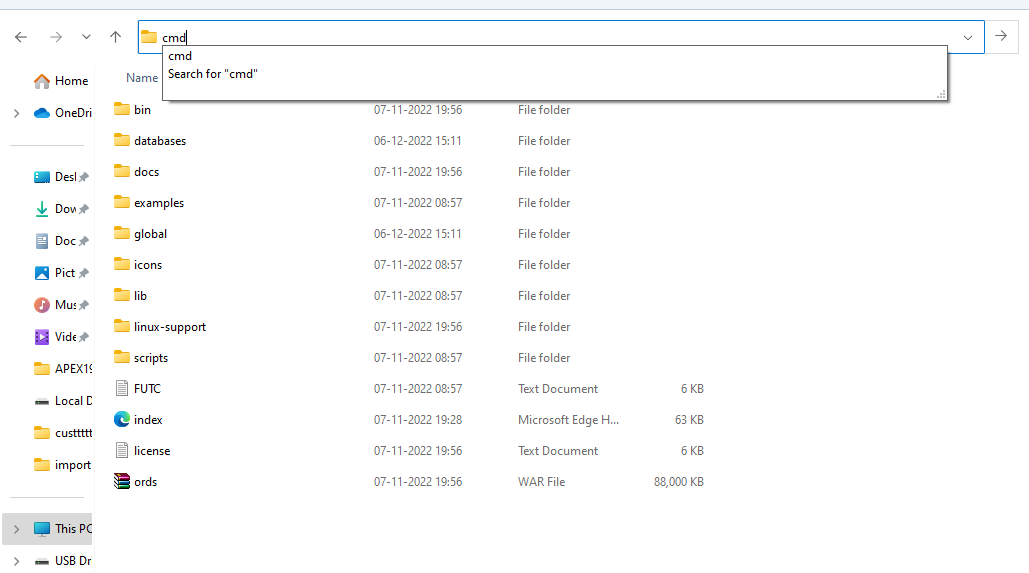
1. Now, open chrome and write

<http://localhost:8080/ords>

and apex 24.1 will be opened and you have successfully installed ORDS.24.1

**Un-installation of ORDS 24.1-**

34.Go to D drive and go to ORDS.24.1 folder open the folder and in the address bar type cmd and hit enter and command prompt will open like this:

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35.Now, in the command prompt window type

**---------------------------------------------------------------------------------**

**java -jar ords.war --config D:\ords\config uninstall**

**--------------------------------------------------------------------------------**

**NOTE: - For this version of ORDS jre 8 minimum is required, if on running above command JAVA is not detected make sure java is set in environment variable and if then also it does not work, then instead of the above command run:**

**-----------------------------------------------------------------------------------**

**“JAVA \_PATH” -jar ords.war --config D:\ords\config uninstall**

**(in JAVA\_PATH enter java bin folder path)**

**-----------------------------------------------------------------------------------**

1. Now, follow the same as installation and once the execution is complete delete the ORDS.24.1 folder from D drive for next installation or anyway.

**Note :-** After Uninstall ORDS check in db if ORDS\_PUBLIC\_USER, ORDS\_METADATA is there then drop this .

1. Open SQL\*Plus and connect with **SYS AS SYSDBA** user.

**--------- ( Run below command )**

**“ DROP USER ORDS\_PUBLIC\_USER CASCADE ”**

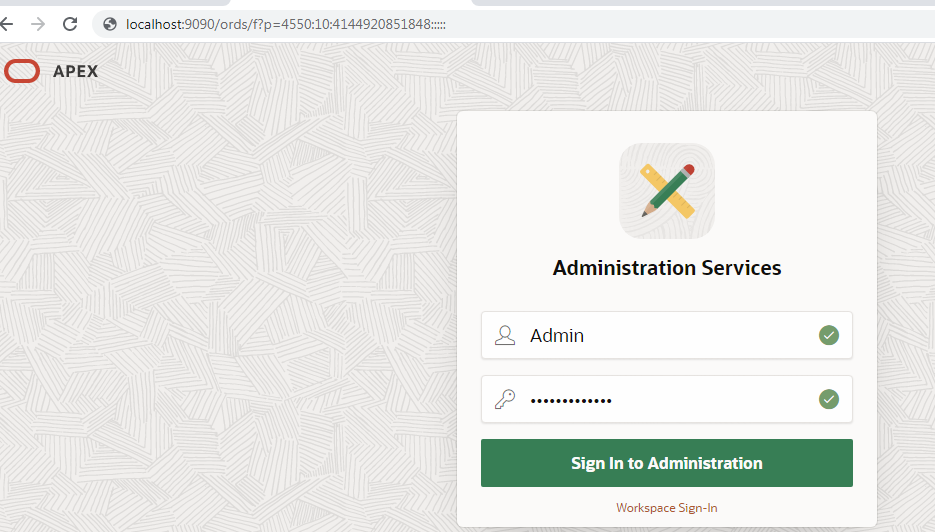
**“ DROP USER ORDS\_METADATA CASCADE ”**

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37. **Now, go to browser and run**

**Note: Apex 24.1 will not run without the installation of ords**

**<http://localhost:8080/ords/apex_admin>**

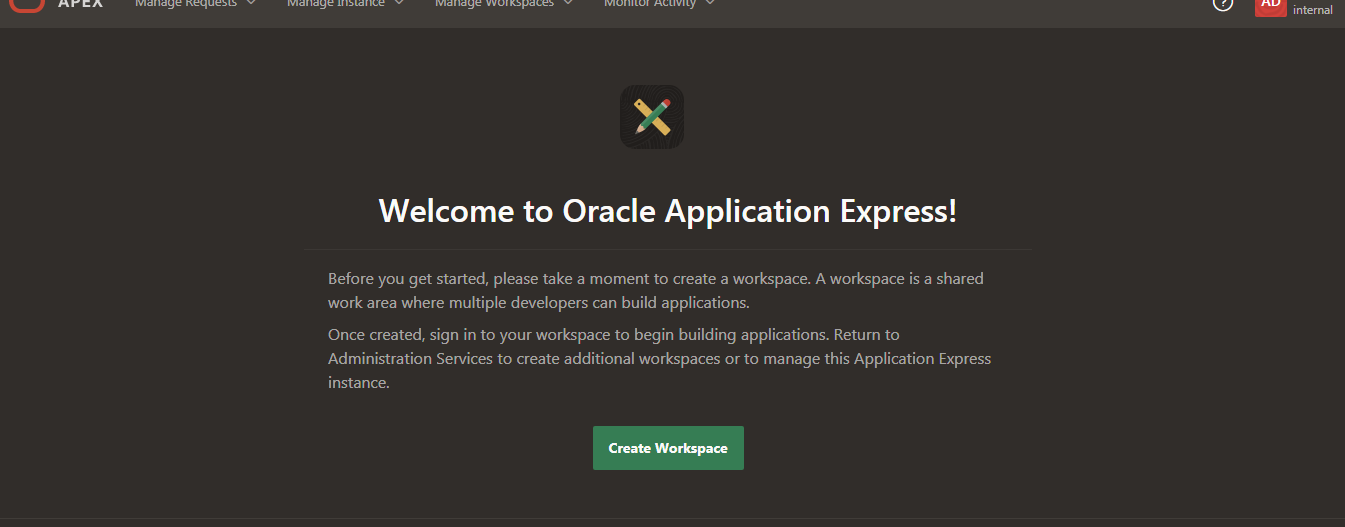


38. **Enter below Credentials:**

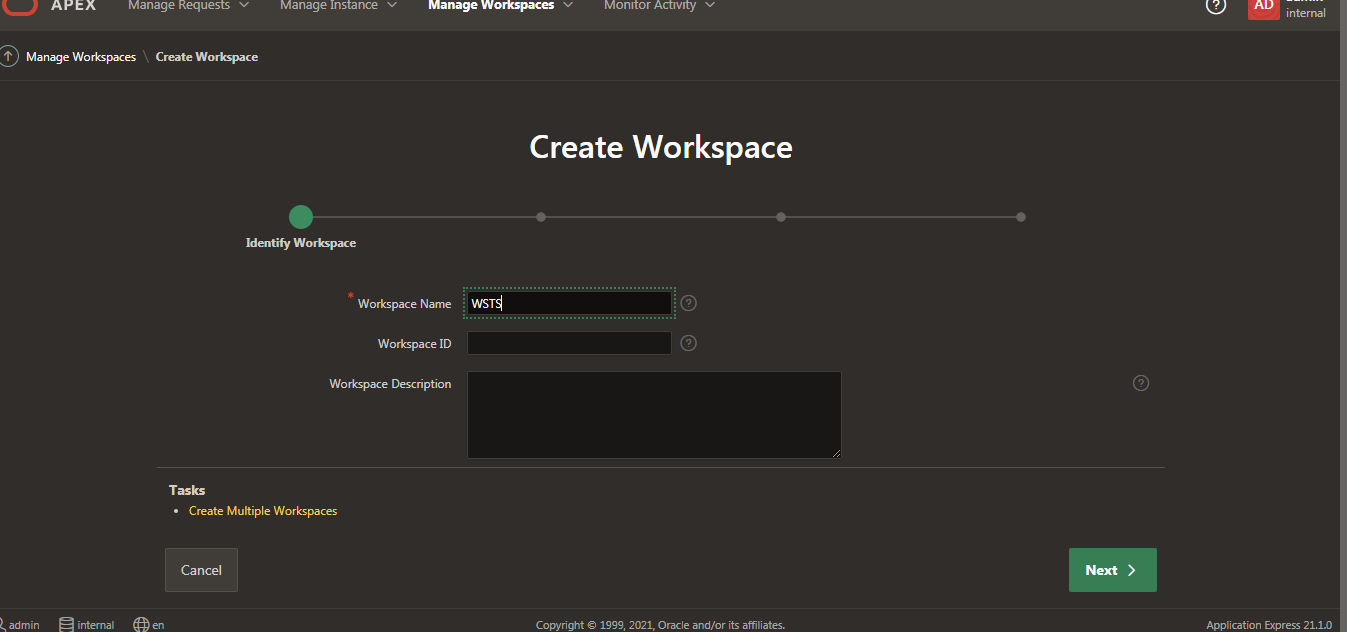
**Username: Admin**

**Password: Password$1234**

**After login into admin Account click Create Workspace Button:**

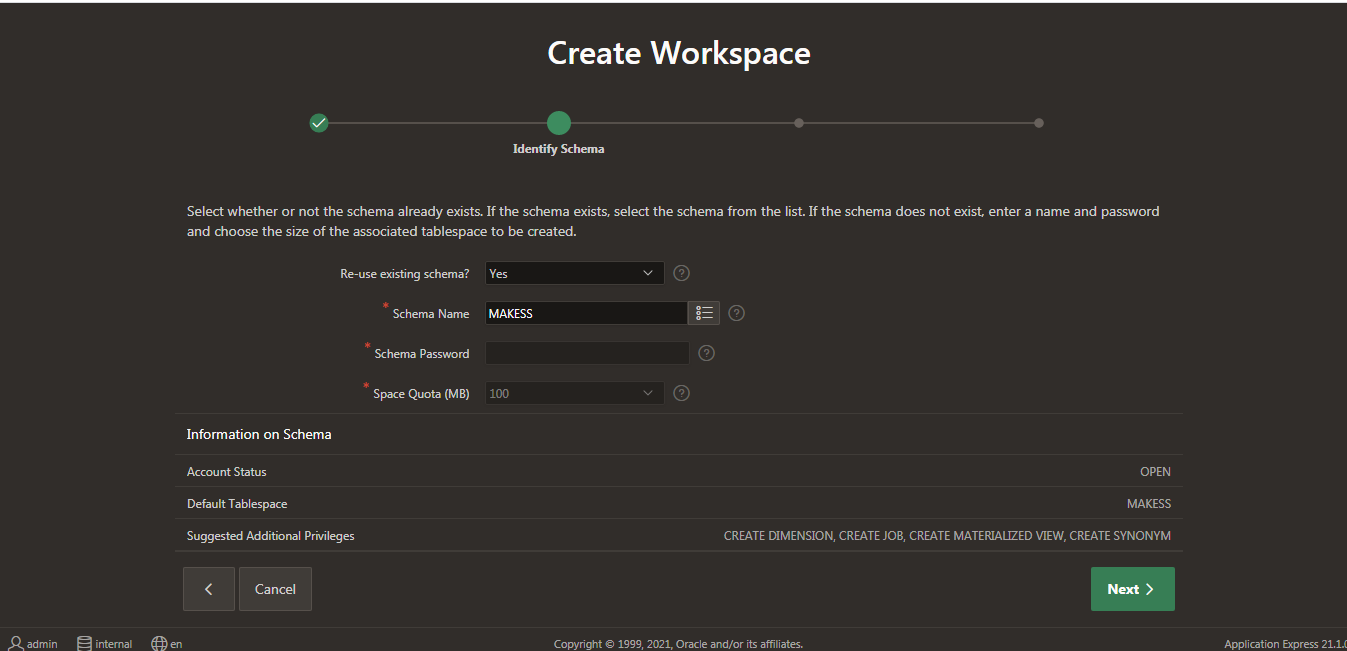


39. Enter Workspace Name as **“WSTS”** and Workspace ID should be blank. Click on next button.

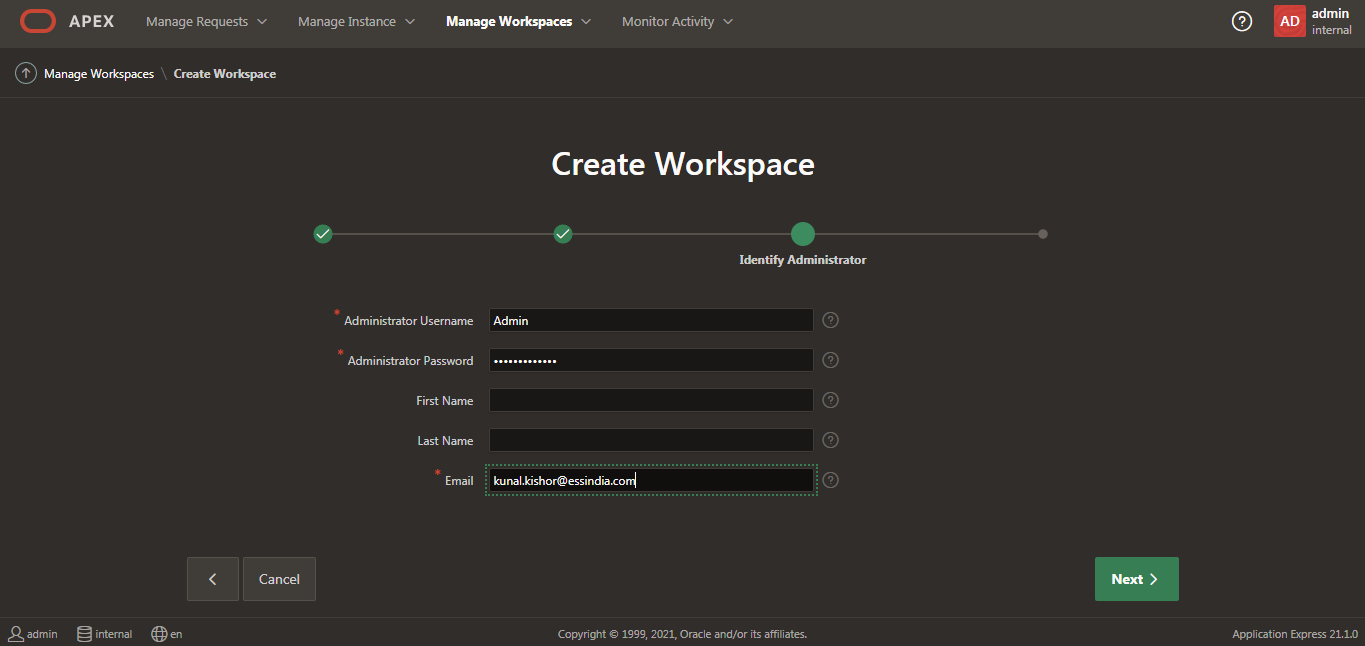


40. **Select ‘Yes’ for Re-use existing Schema.**

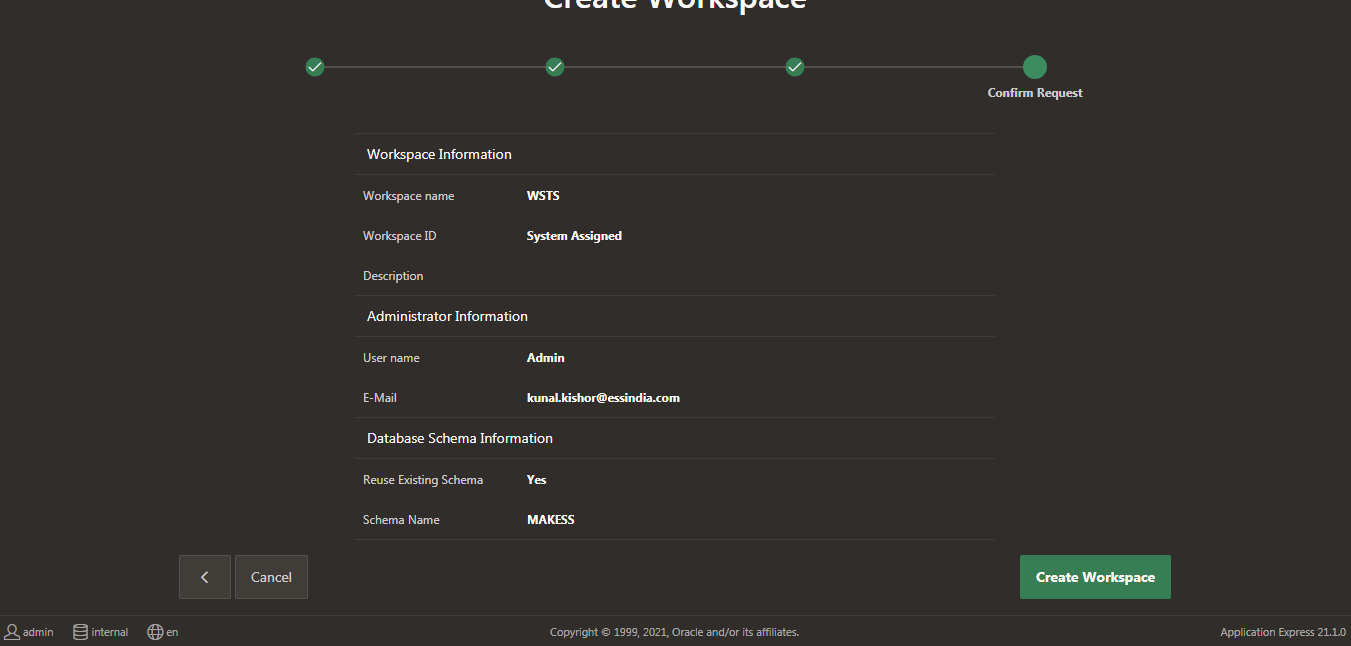
**Select schema name as ‘Makess’. Click Next.**

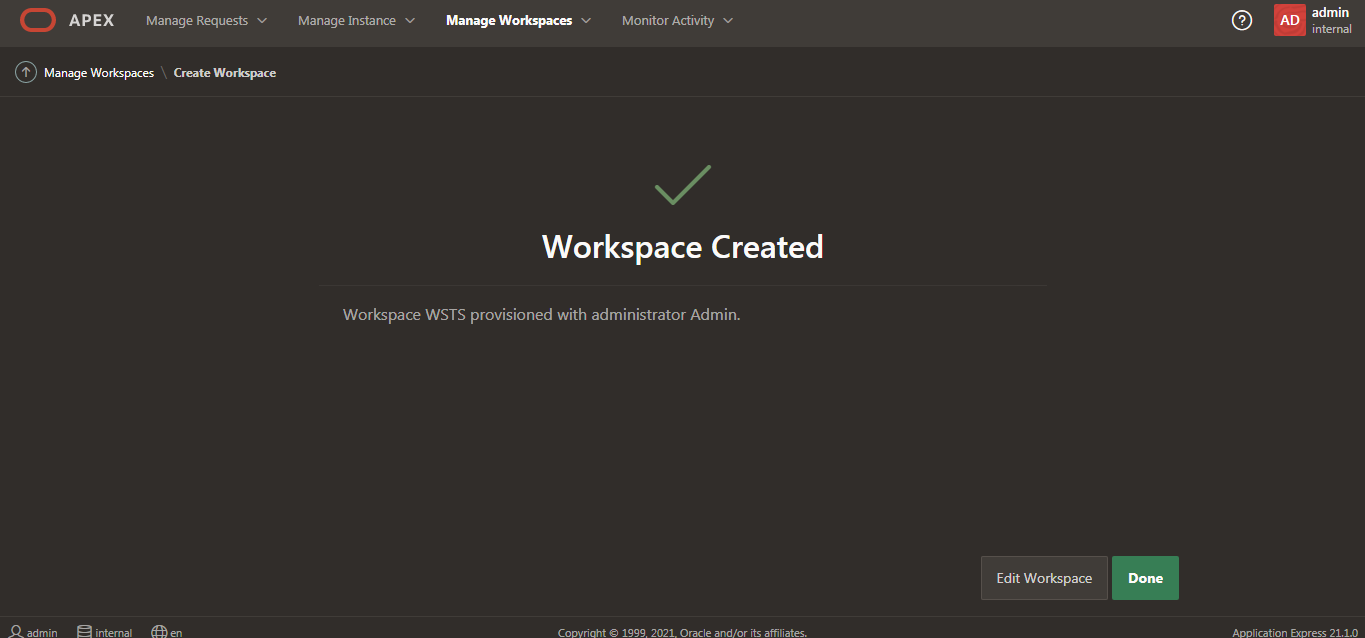


41. **Enter Username as ADMIN and password as Password$1234 and email ID as your desired email ID then press Next button.**



42. Check all the Workspace Information and Press **Create Workspace** button.



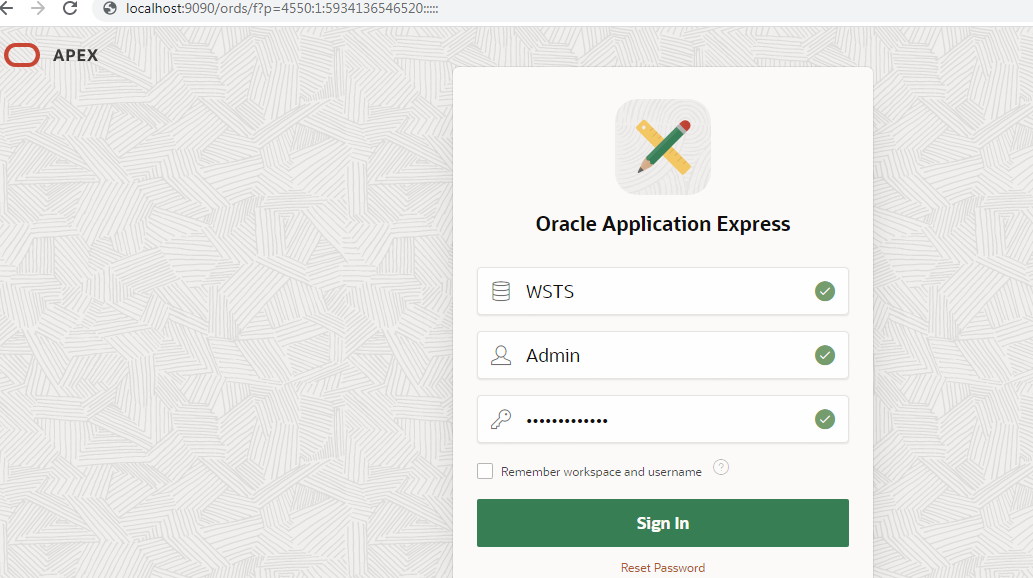


43. Click on **Done** button after successful creation of Workspace.

Now that we have successfully created the Workspace now it is time to login the Workspace so that we can develop applications.

44. Login using URL **<http://localhost:8080/ords/> (Change Port according to installation)**

1. **Enter Workspace name i.e., “WSTS”, Username (Admin) and password (Password$1234) for login Apex application and change the password for admin user as per your preference.**



**Now, you have successfully installed Oracle APEX 24.1 on your Oracle Database.**

**NOTE: - If you have database and application server on the different machines then please copy this “apex\_24\_1\_en” folder in D drive from database server to D drive in the application server and then install ORDS on the application server to connect apex from database server to application server, please refer ORDS installation document for installation and configuration on application server.**

**UN-Installation of Oracle APEX 24.1: -**

1. Go to the sqlplus shortcut created on the desktop while installation connect it as sys as sysdba.
2. Run command below:

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**@apxremov.sql**

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1. Wait for process to complete and then exit the sql prompt then delete the apex\_24\_1\_en folder form D drive for next installation or anyway.

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