Installing APEX 5 in Oracle for use with Oracle Rest Data Services (ORDS)

Oracle databases come with APEX pre-installed. But the version installed may not be the version that you want. This article details how to install APEX 5 in an Oracle database.

Check the version of APEX currently in the database as follows:

```
SQL> select version from dba_registry where comp_id='APEX';

VERSION
------------------------------
3.2.1.00.10

SQL>
```

In this case, APEX version 3.2 is installed. We will first uninstall version 3.2 before installing version 5.

If this is the version of APEX installed on database installation, go to the APEX directory of the $ORACLE_HOME.

[oracle@Forge apex]$ cd $ORACLE_HOME/apex

Log into Oracle and run the script @apxremov.sql from the $ORACLE_HOME/apex directory. If this is not the default version of APEX that you wish to remove, please run the @apxremov.sql script in the corresponding apex directory.

```
[oracle@Forge apex]$ cd $ORACLE_HOME/apex
[oracle@Forge apex]$ ls
apex_epg_config_core.sql  apxdevrm.sql  apxrelod.sql  catapx.sql      owa
apex_epg_config.sql       apxdvins.sql  apxremov.sql  core            patches
apexins.sql               apxe101.sql   apxrtins.sql  coreins.sql
utilities
apexvalidate.sql          apxe102.sql   apxsqler.sql  devins.sql
apxchpwd.sql              apxe111.sql   apxxemig.sql  endins.sql
apxconf.sql               apxldimg.sql  apxxepwd.sql  images
apxdbmig.sql              apxpatch.sql  builder       load_trans.sql
[oracle@Forge apex]$ sqlplus /nolog

SQL*Plus: Release 11.2.0.1.0 Production on Thu May 25 14:37:11 2017

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SQL> connect sys as sysdba
```

```
Enter password:
Connected.
SQL> @apxremov.sql
...Removing Application Express
old   1: alter session set current_schema = &APPUN
new   1: alter session set current_schema = APEX_030200

Session altered.


PL/SQL procedure successfully completed.


no rows selected

old   2:     if '&UPGRADE' = '1' then
new   2:     if '1' = '1' then

PL/SQL procedure successfully completed.


Session altered.


PL/SQL procedure successfully completed.

old   1: drop user &APPUN cascade
new   1: drop user APEX_030200 cascade

User dropped.

old   2:     if '&UPGRADE' = '1' then
new   2:     if '1' = '1' then

PL/SQL procedure successfully completed.

old   5:     if '&UPGRADE' = '1' then
new   5:     if '1' = '1' then

PL/SQL procedure successfully completed.

old   2:     if '&UPGRADE' = '1' then
new   2:     if '1' = '1' then

PL/SQL procedure successfully completed.

...Application Express Removed
SQL>
```

You can use the query from before to confirm that APEX has been removed.

```
SQL> select version from dba_registry where comp_id='APEX';

no rows selected

SQL>
```

Now, we can install APEX 5 into the database. First create new tablespaces:

```
-- Tablespace for the APEX application user

CREATE TABLESPACE APEX_DATA DATAFILE
  '+DATA_DG1/prddb1/datafile/apex_data01.dbf' SIZE 2048M AUTOEXTEND ON NEXT
2048M MAXSIZE 10240M
LOGGING
ONLINE
EXTENT MANAGEMENT LOCAL AUTOALLOCATE
BLOCKSIZE 8K
SEGMENT SPACE MANAGEMENT AUTO
FLASHBACK ON;


Tablespace created.

-- Tablespace for the APEX files user

CREATE TABLESPACE APEX_FILES_DATA DATAFILE
  '+DATA_DG1/prddb1/datafile/apex_files_data01.dbf' SIZE 2048M AUTOEXTEND ON
NEXT 2048M MAXSIZE 10240M
LOGGING
ONLINE
EXTENT MANAGEMENT LOCAL AUTOALLOCATE
BLOCKSIZE 8K
SEGMENT SPACE MANAGEMENT AUTO
FLASHBACK ON;


Tablespace created.
```

Download and unzip APEX 5. Change to the apex directory and run the script apexins.sql as follows:

```
@apexins.sql apex_app_tspace apex_files_tspace temp virtual_images_directory


[oracle@Forge apex]$ sqlplus /nolog

SQL*Plus: Release 11.2.0.1.0 Production on Thu May 25 17:11:33 2017

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SQL> connect sys as sysdba
```

```
Enter password:
Connected.
SQL> @apexins.sql APEX_DATA APEX_FILES_DATA TEMP /i/
```

You will get the following message upon successful installation.

```
PL/SQL procedure successfully completed.
```

Since we are going to use Oracle Rest Data Service (ORDS), we must also configure ORDS.
Run the script apex_rest_config.sql to configure ORDS.

```
[oracle@Forge apex]$ sqlplus /nolog

SQL*Plus: Release 11.2.0.1.0 Production on Thu May 25 17:32:19 2017

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SQL> connect sys as sysdba
Enter password:
Connected.
SQL> @apex_rest_config.sql

PL/SQL procedure successfully completed.




PL/SQL procedure successfully completed.




Enter a password for the APEX_LISTENER user              []
Enter a password for the APEX_REST_PUBLIC_USER user              []
...create APEX_LISTENER user

PL/SQL procedure successfully completed.

...create APEX_REST_PUBLIC_USER user

PL/SQL procedure successfully completed.
```

```
.
.
.

PL/SQL procedure successfully completed.

SQL>
```

Now, we need to create an APEX instance administrator account by running the script apxchpwd.sql.

```
[oracle@Forge apex]$ sqlplus /nolog

SQL*Plus: Release 11.2.0.1.0 Production on Thu May 25 17:40:33 2017

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SQL> connect sys as sysdba
Enter password:
Connected.
SQL> @apxchpwd.sql
========================================================
This script can be used to change the password of an Application Express
instance administrator. If the user does not yet exist, a user record will be
created.
========================================================
Enter the administrator's username [ADMIN]
User "ADMIN" does not yet exist and will be created.
Enter ADMIN's email [ADMIN] xxxxxxxx
Enter ADMIN's password []
Created instance administrator ADMIN.

SQL>
```

The APEX_PUBLIC_USER account is locked with a random password by default. We must unlock it and change the password.

```
[oracle@Forge apex]$ sqlplus /nolog

SQL*Plus: Release 11.2.0.1.0 Production on Thu May 25 17:53:14 2017

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SQL> connect sys as sysdba
Enter password:
Connected.
SQL> ALTER USER APEX_PUBLIC_USER ACCOUNT UNLOCK;

User altered.
```

```
SQL> ALTER USER APEX_PUBLIC_USER IDENTIFIED BY xxxxxxx;

User altered.

SQL>
```

Note that the APEX_PUBLIC_USER password will expire in 180 days by default. Once it expires, your APEX instance will not work until the password is changed. This can be prevented by changing APEX_PUBLIC_USER to a profile with a longer or unlimited lifetime (parameter PASSWORD_LIFE_TIME).

At this point, the installation is complete on the database side.