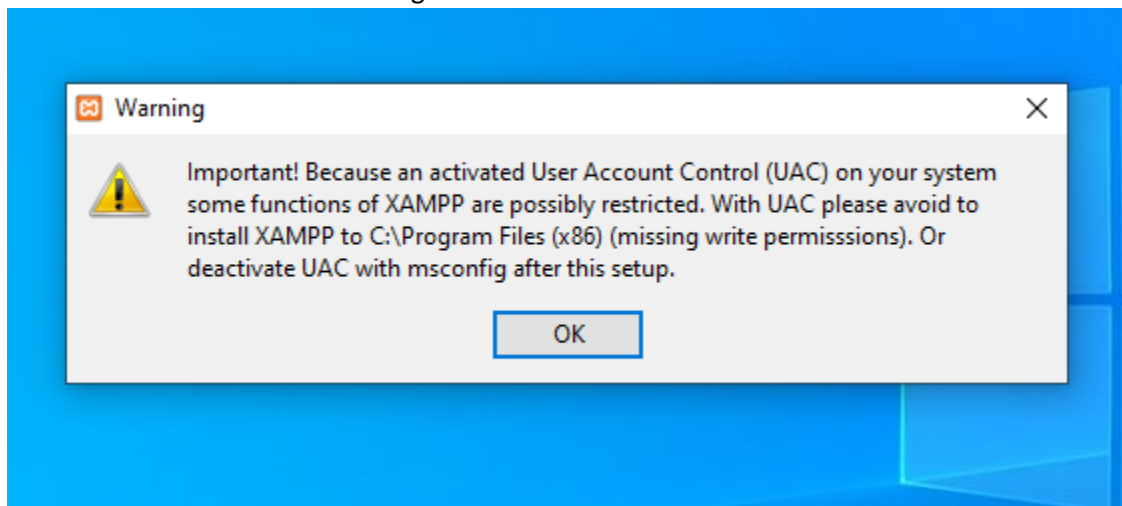


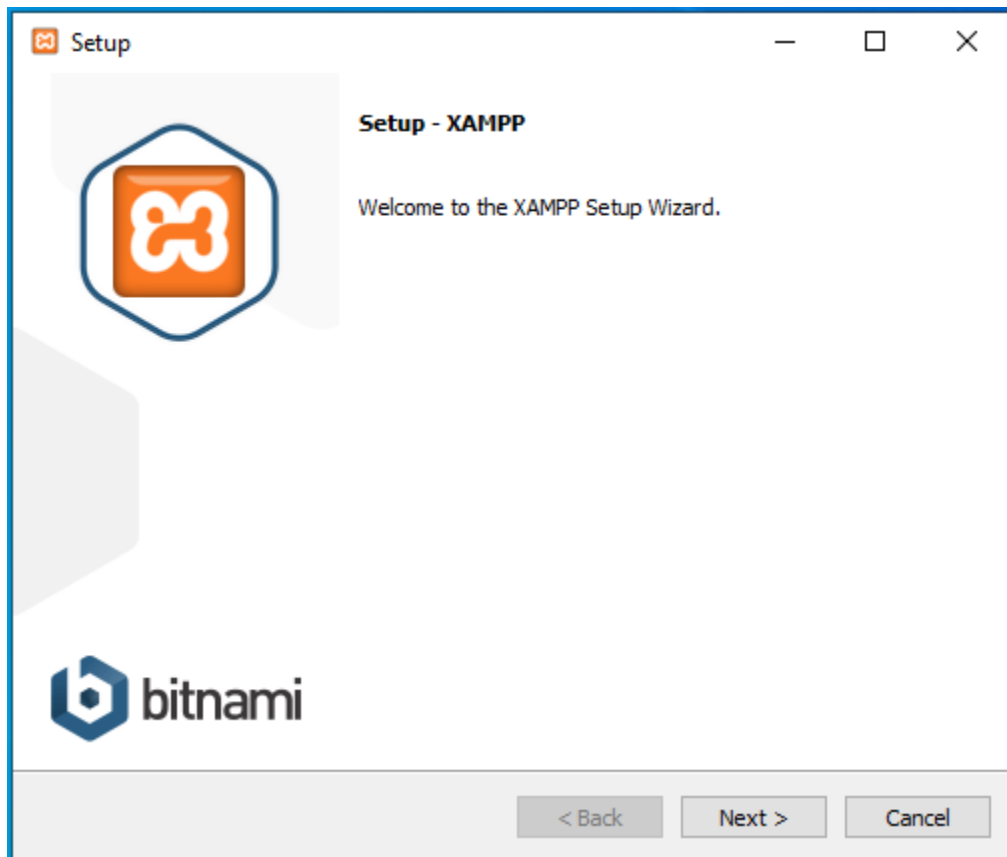
INSTALLATION GUIDELINES

XAMPP

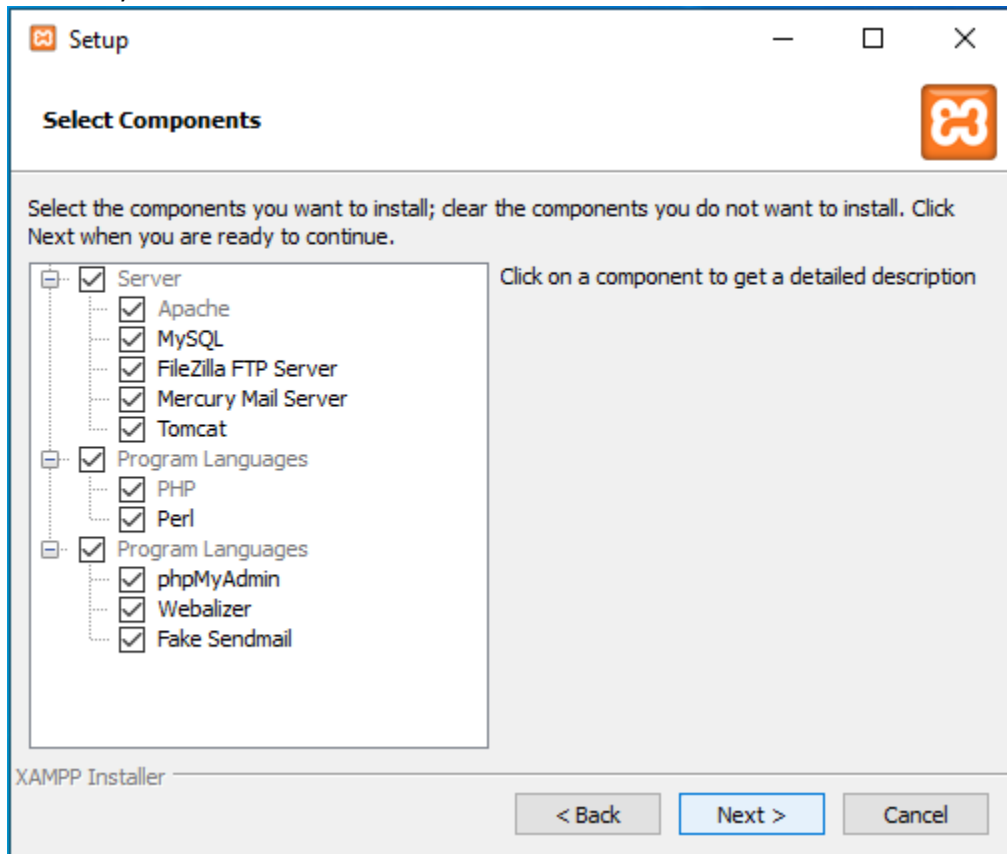
1. First, click the following link <https://www.apachefriends.org/download.html> add download XAMPP which is suitable for your device.
2. Now, double click on the downloaded file to run the installation.
3. Click the OK button on the warning to continue.



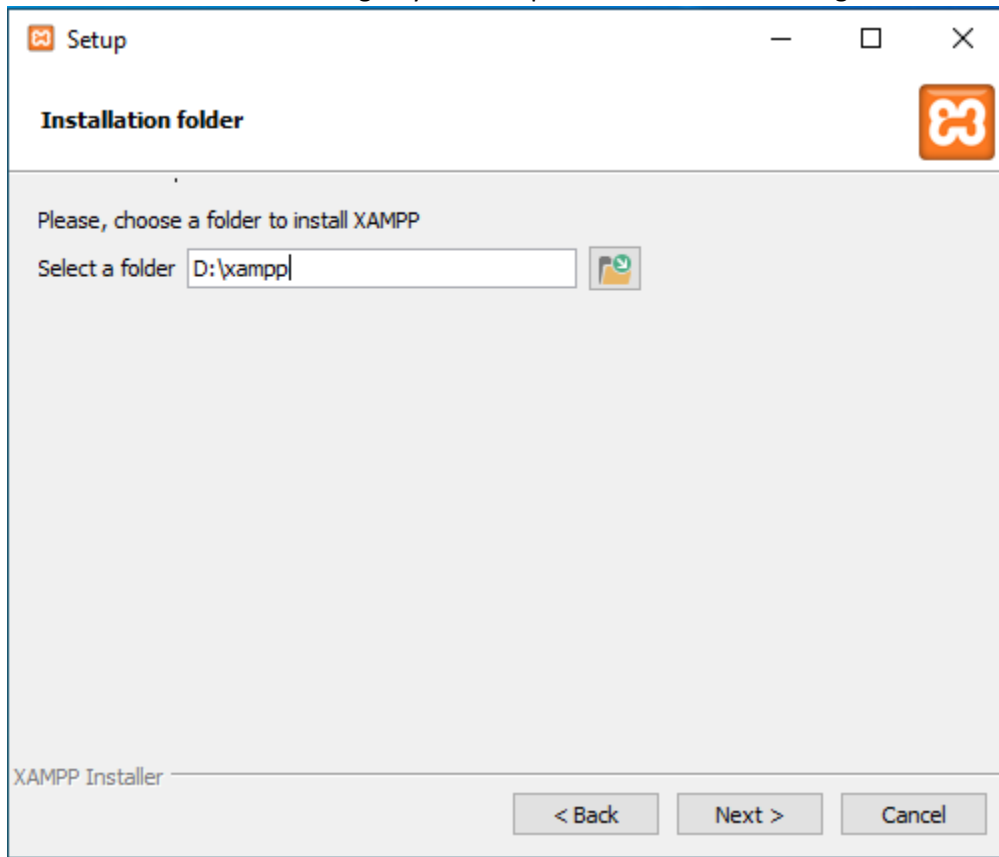
4. Click the Next button.



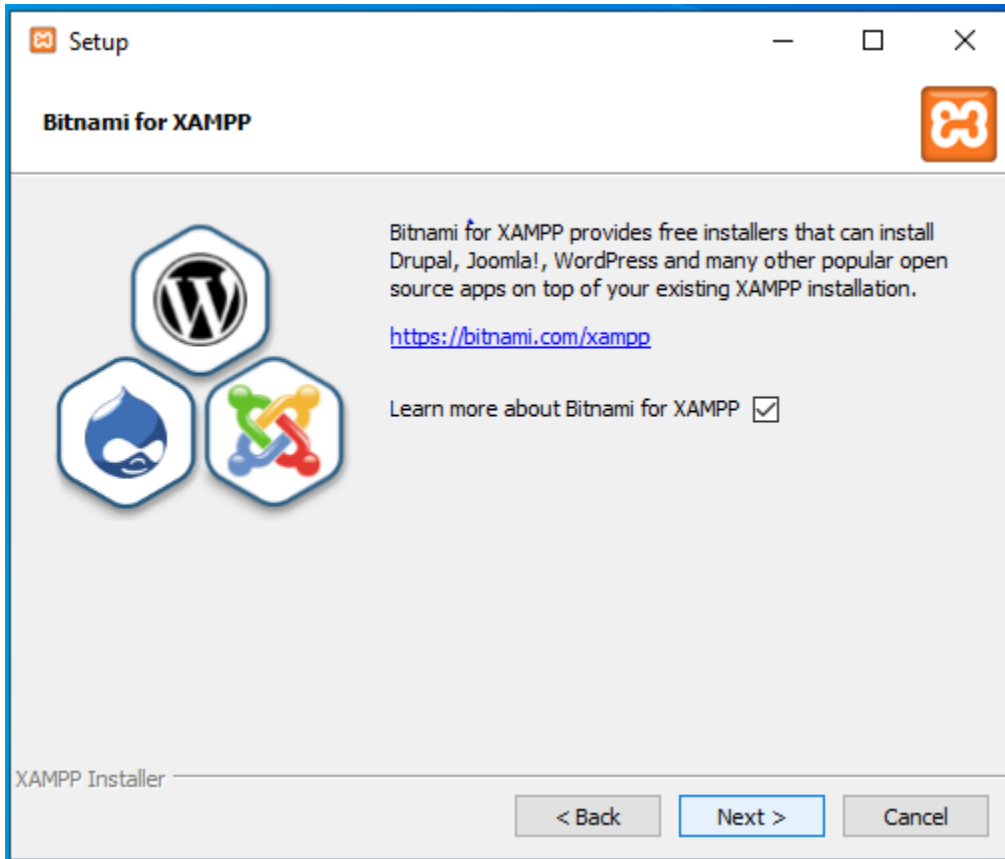
5. XAMPP offers a variety of services like Apache, MySQL, phpMyAdmin, and many more which are selected by default. It is recommended that you select everything as you will use all of them eventually and click Next.



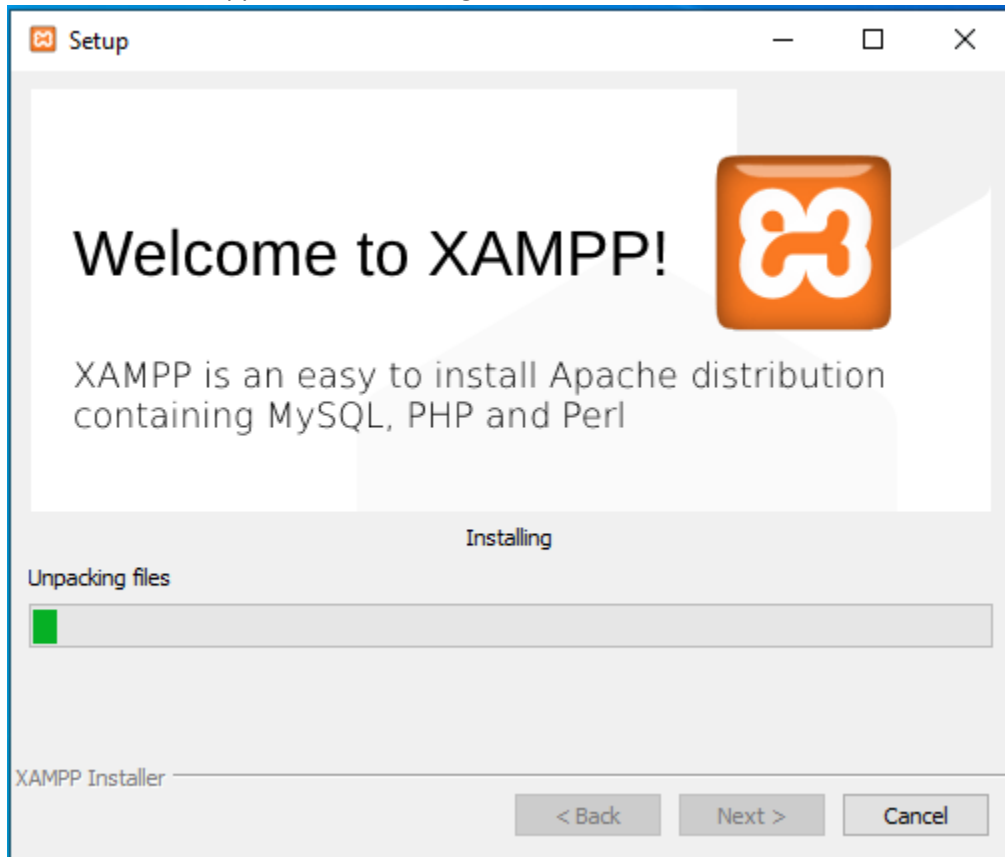
6. Now, select the location for the installation of the software. You can either choose the default location or choose it according to your own preference. After selecting the folder click Next.



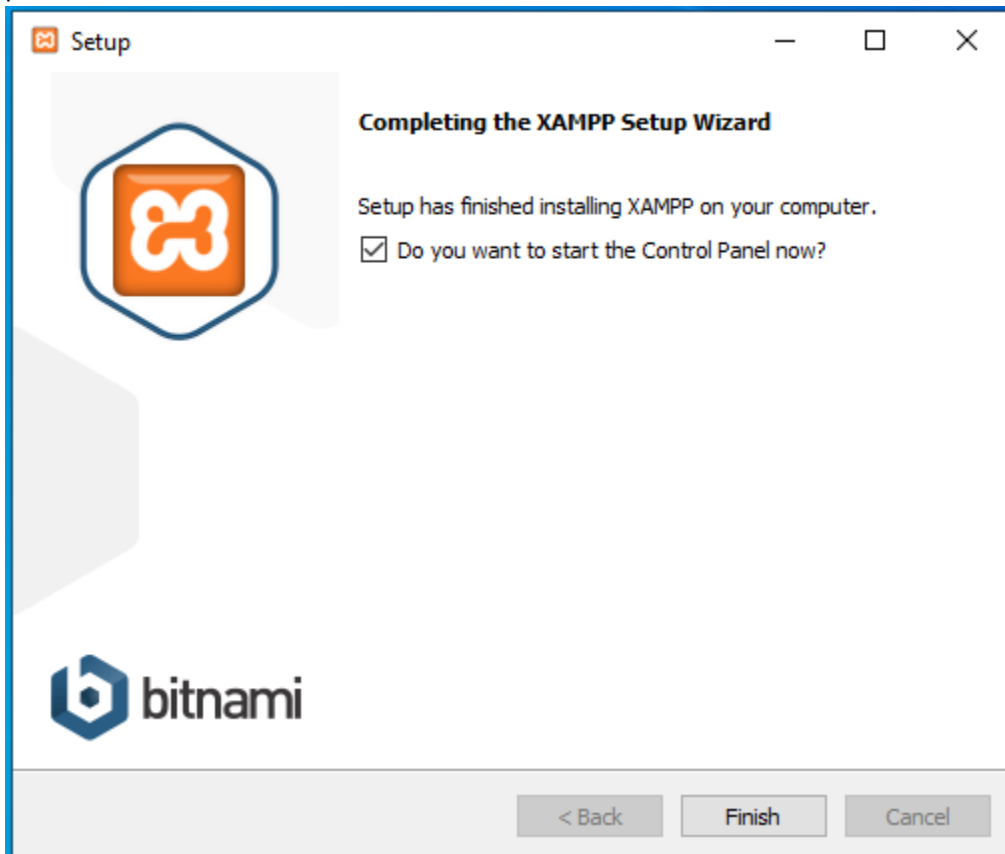
7. You will be asked if you want to learn more about bitnami which is a library of installers or software packages for web applications and solution stacks as well as virtual appliances. You can unclick the learn more checkbox and press Next.



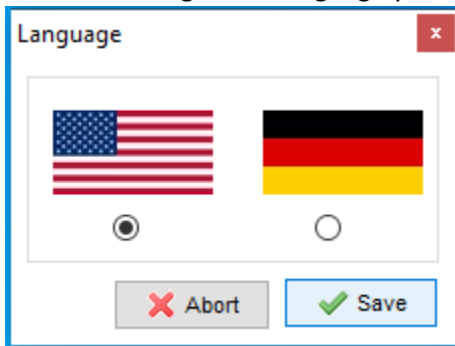
8. Now, wait for xampp to finish installing and click Next.



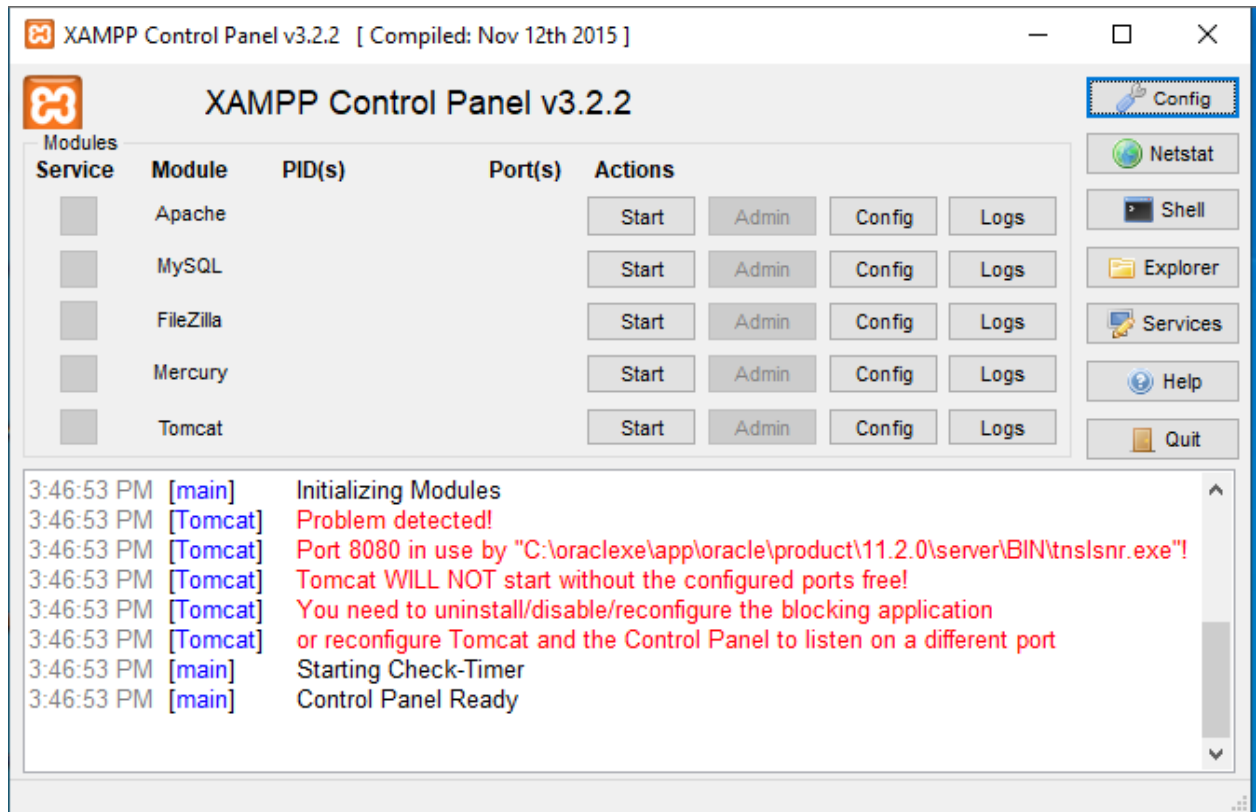
9. After the completion of installation XAMPP, it will ask you if you want to run the xampp control panel now. Leave the check box as it is and click on Finish.



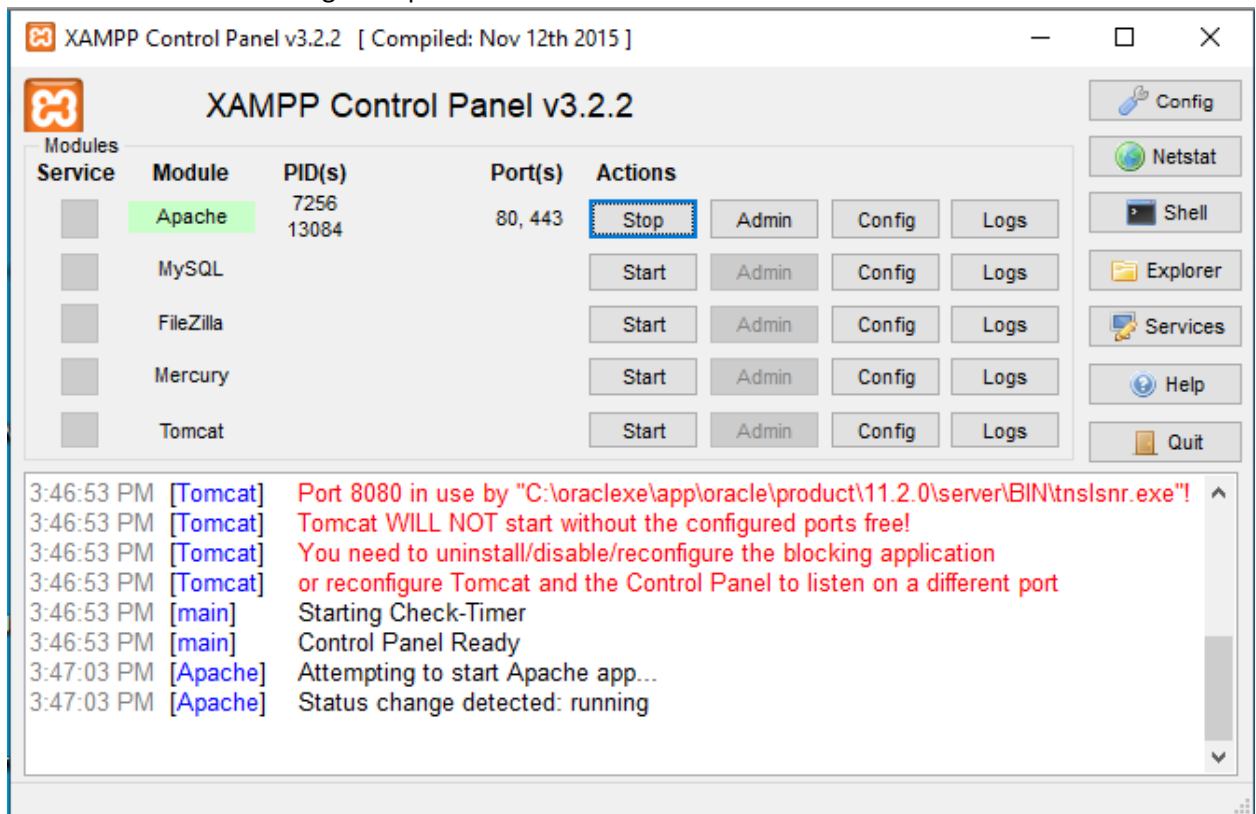
10. Click on the flag of the language you want to run. English is recommended and click on Save.



11. The Xampp control panel will start up if you had selected to start the control panel during step 9. You might receive an error telling you Tomcat will not start, but as we do not need tomcat it will not matter.

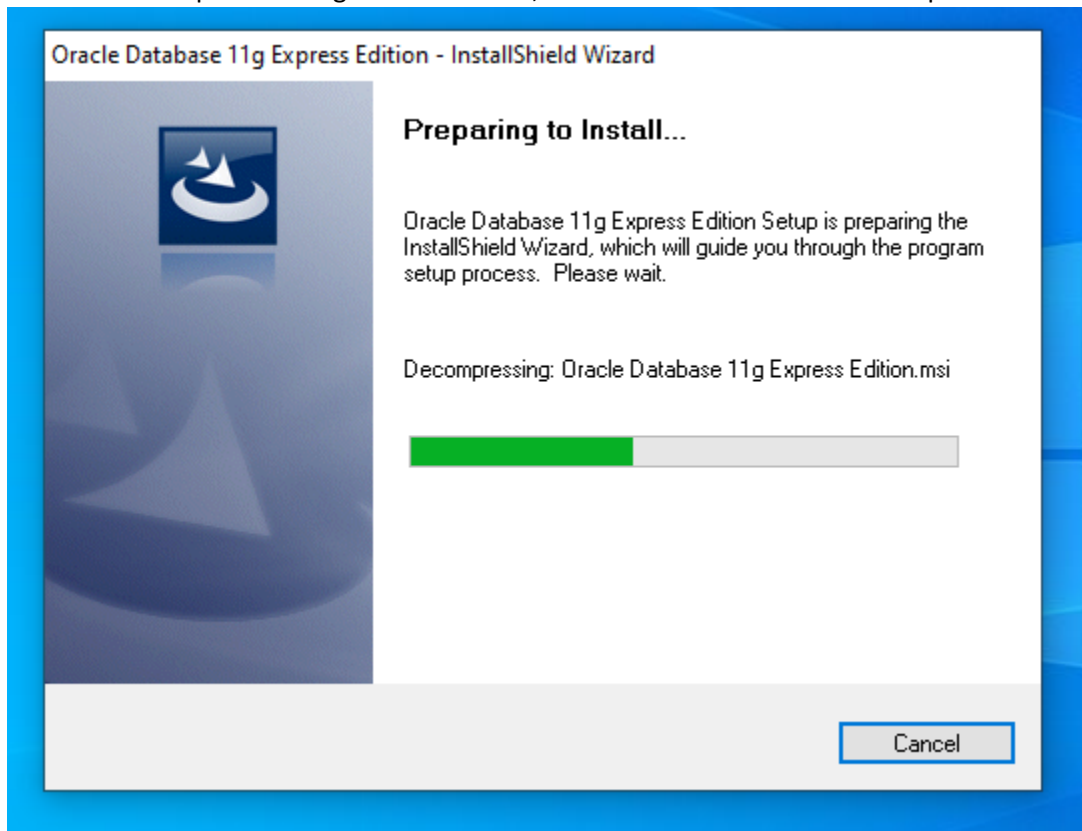


12. Click on the first Start alongside Apache to start the server.

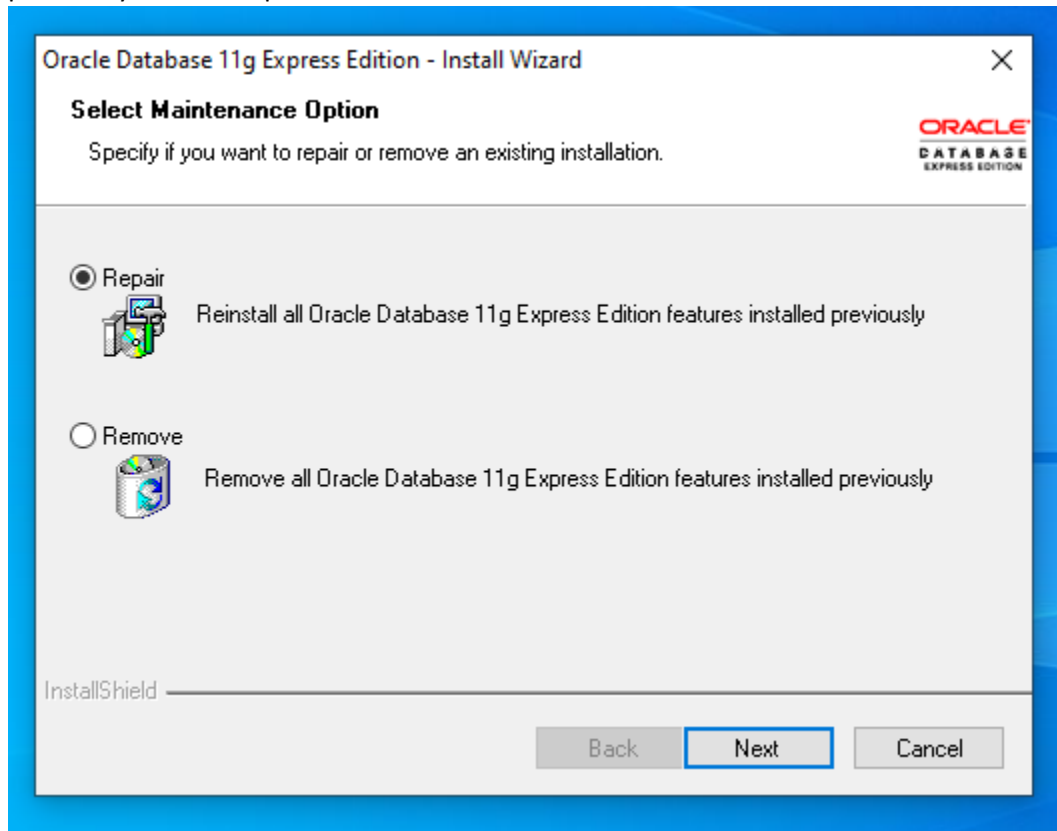


Oracle Database

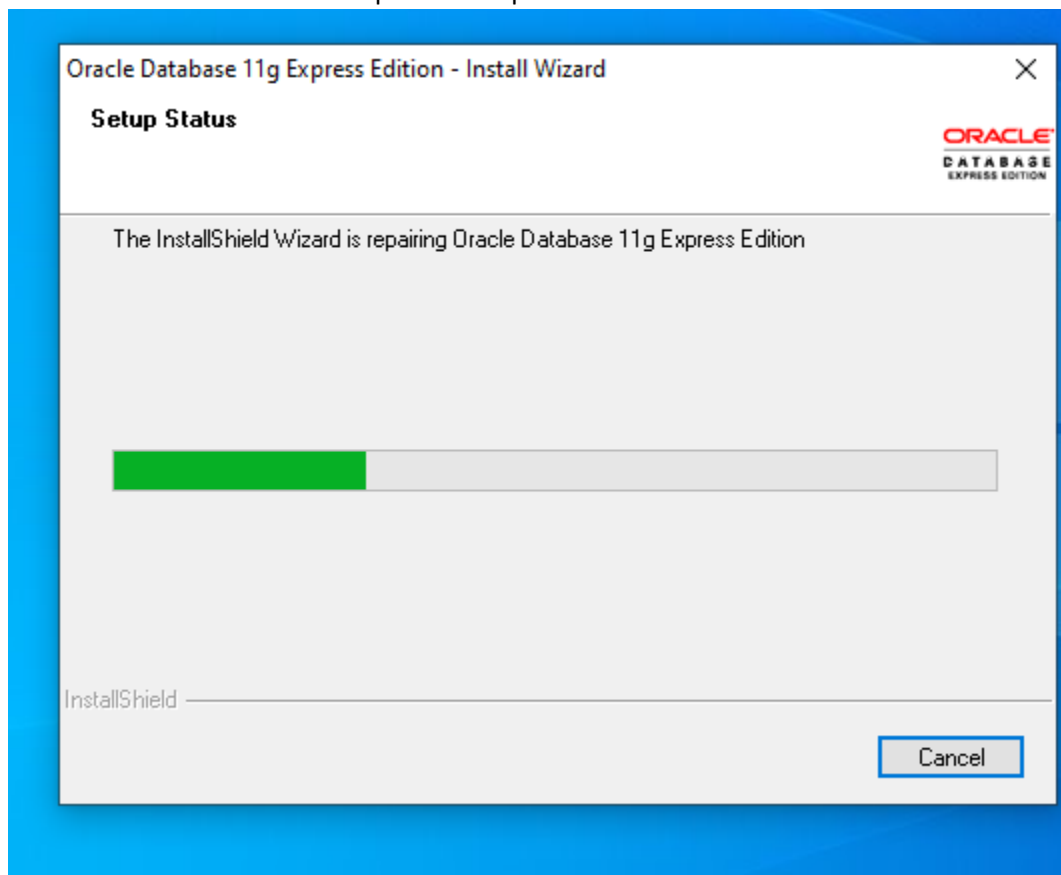
1. First download "Oracle Database Express Edition 11g" from <https://www.oracle.com/database/technologies/appdev/xe.html>.
2. After the download has finished double click on it to run the downloaded file.
3. A window will open showing the installation, wait until the installation is completed.



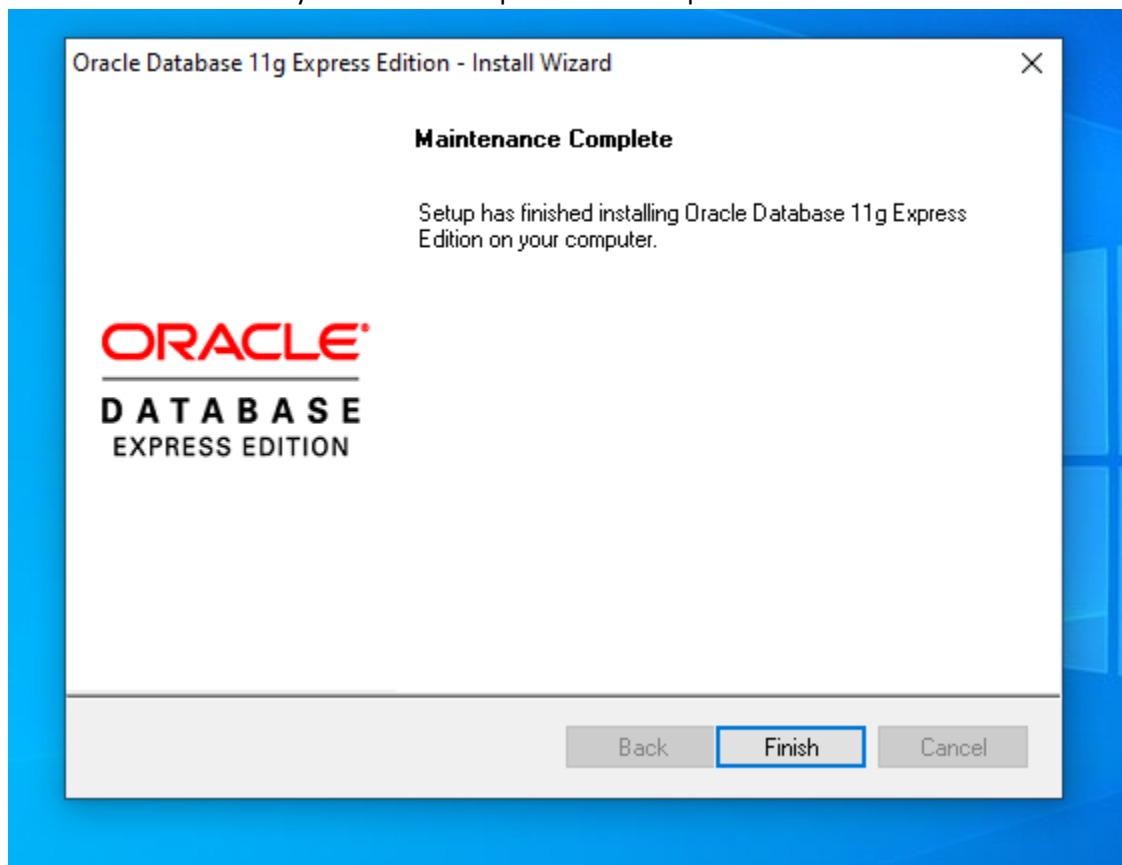
4. It will ask you if you want to repair or remove an existing installation if you already had it previously. Choose repair and click Next.



5. You will have to wait for the repair to complete.

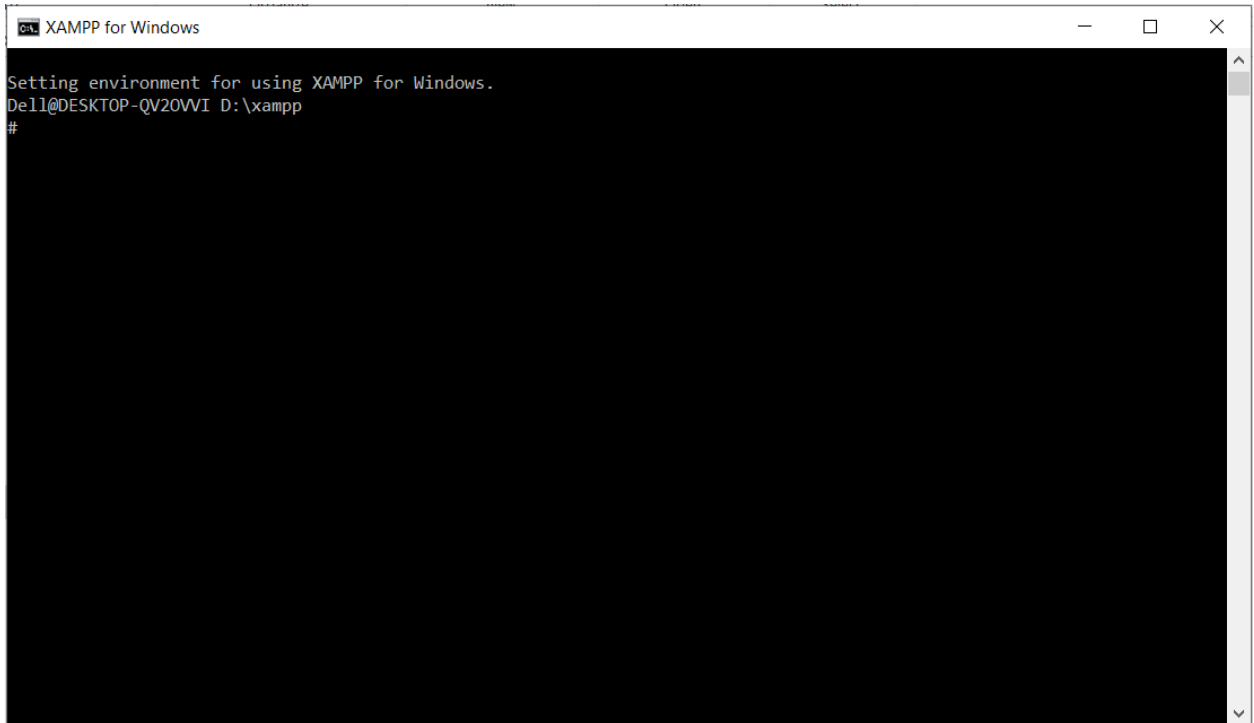


6. The window will inform you that the setup has been completed then click Finish.



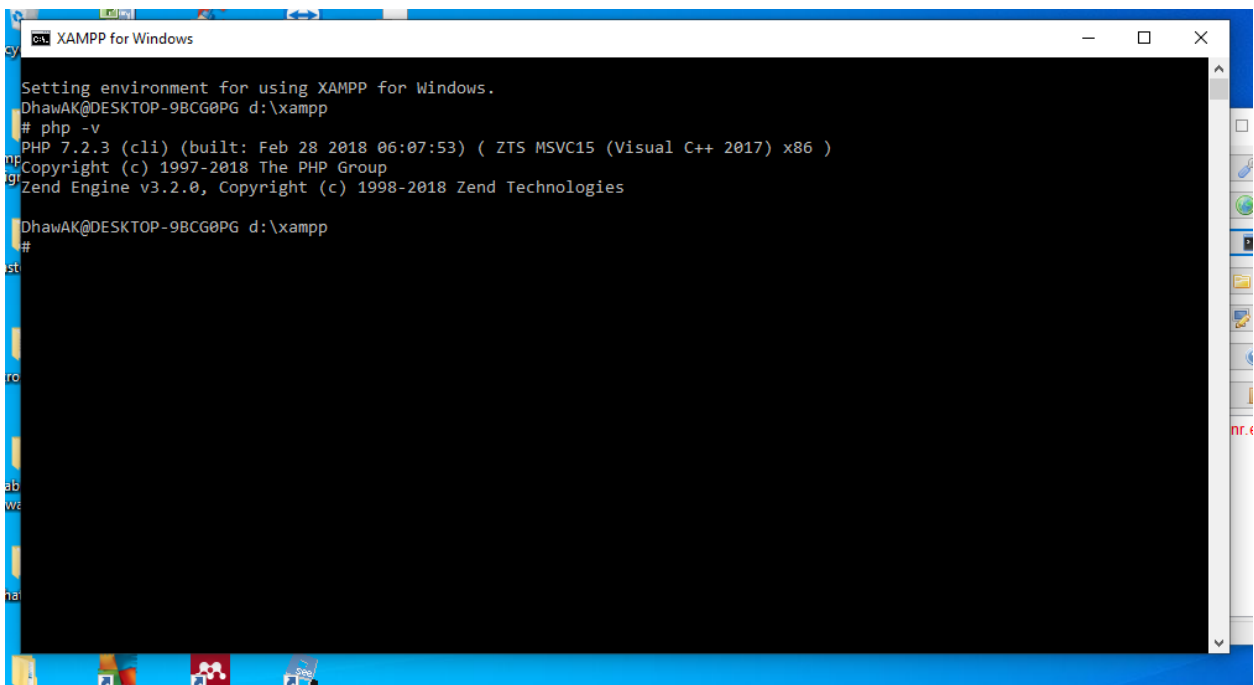
Oracle Database Update

1. In order to update oracle database to version 19.2 first we need to find the version number of our php, so go to the previously installed xampp folder and run 'xampp shell'.

A screenshot of a Windows command prompt window titled "XAMPP for Windows". The window has a black background with white text. The text inside the window reads: "Setting environment for using XAMPP for Windows.", "Dell@DESKTOP-QV20VVI D:\xampp", and a prompt character "#".

```
Setting environment for using XAMPP for Windows.
Dell@DESKTOP-QV20VVI D:\xampp
#
```

2. Type 'php -v' to find out the version of php you are using.

A screenshot of a Windows command prompt window titled "XAMPP for Windows". The window has a black background with white text. The text inside the window reads: "Setting environment for using XAMPP for Windows.", "DhawAK@DESKTOP-9BCG0PG d:\xampp", "# php -v", "PHP 7.2.3 (cli) (built: Feb 28 2018 06:07:53) (ZTS MSVC15 (Visual C++ 2017) x86)", "Copyright (c) 1997-2018 The PHP Group", "Zend Engine v3.2.0, Copyright (c) 1998-2018 Zend Technologies", "DhawAK@DESKTOP-9BCG0PG d:\xampp", and a prompt character "#".

```
Setting environment for using XAMPP for Windows.
DhawAK@DESKTOP-9BCG0PG d:\xampp
# php -v
PHP 7.2.3 (cli) (built: Feb 28 2018 06:07:53) ( ZTS MSVC15 (Visual C++ 2017) x86 )
Copyright (c) 1997-2018 The PHP Group
Zend Engine v3.2.0, Copyright (c) 1998-2018 Zend Technologies
DhawAK@DESKTOP-9BCG0PG d:\xampp
#
```

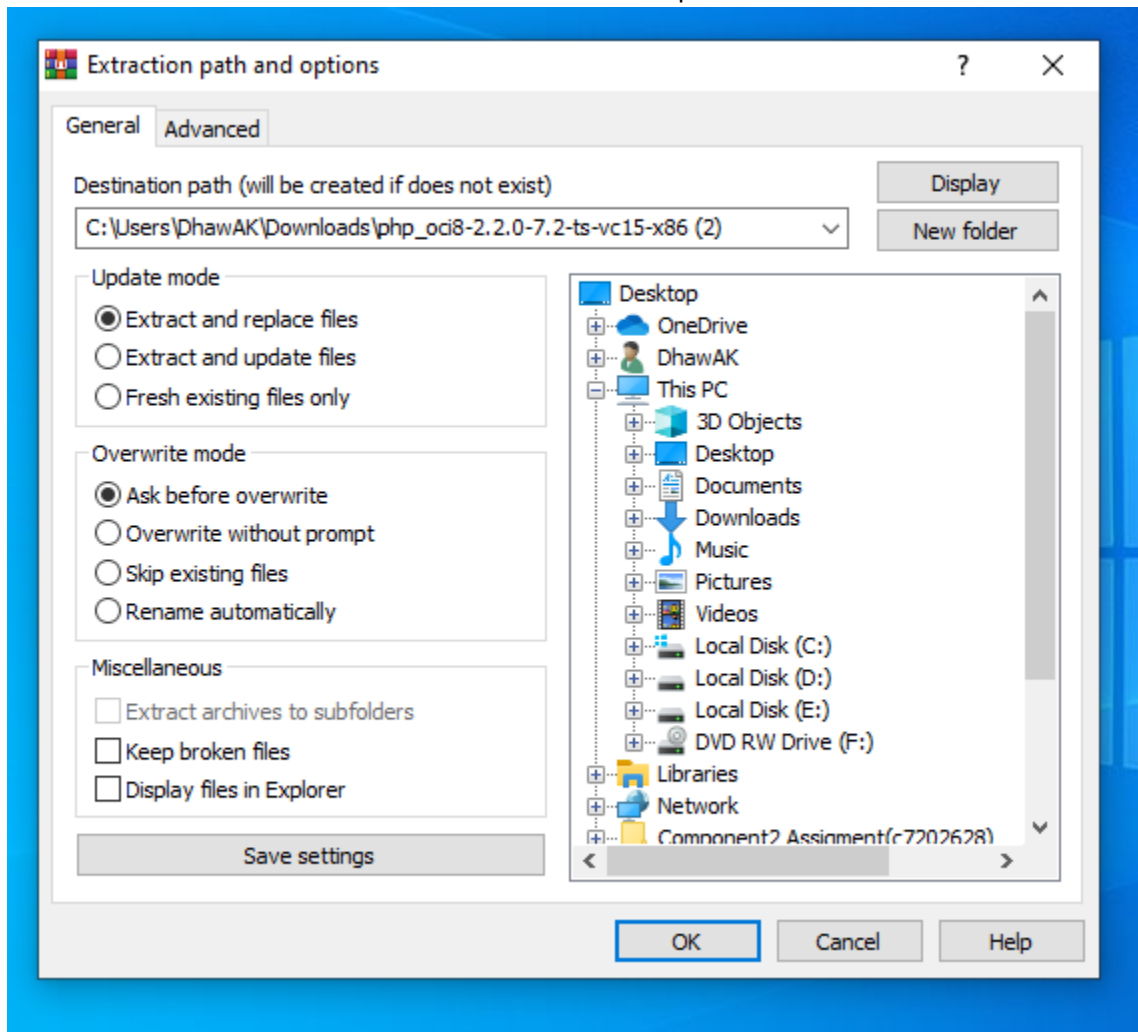
- After finding out what version your php is go to the link <https://pecl.php.net/package/oci8> and press the DLL link corresponding to the version of php you have. If your php version is greater than 7.1 select the DLL of version 2.2.0.

Available Releases					
Version	State	Release Date	Downloads		
2.2.0	stable	2018-12-10	oci8-2.2.0.tgz (191.8kB)	DLL	[Changelog]
2.1.8	stable	2017-10-18	oci8-2.1.8.tgz (189.6kB)	DLL	[Changelog]
2.1.7	stable	2017-08-15	oci8-2.1.7.tgz (189.4kB)	DLL	[Changelog]
2.1.4	stable	2017-04-12	oci8-2.1.4.tgz (187.5kB)	DLL	[Changelog]
2.1.3	stable	2016-11-11	oci8-2.1.3.tgz (187.4kB)	DLL	[Changelog]
2.1.2	stable	2016-08-18	oci8-2.1.2.tgz (187.3kB)	DLL	[Changelog]
2.0.12	stable	2016-08-18	oci8-2.0.12.tgz (187.5kB)	DLL	[Changelog]
2.1.1	stable	2016-04-18	oci8-2.1.1.tgz (187.9kB)	DLL	[Changelog]
2.0.11	stable	2016-04-18	oci8-2.0.11.tgz (187.5kB)	DLL	[Changelog]
2.1.0	stable	2015-12-12	oci8-2.1.0.tgz (186.7kB)	DLL	[Changelog]
2.0.10	stable	2015-12-12	oci8-2.0.10.tgz (186.9kB)	DLL	[Changelog]
2.0.8	stable	2014-03-12	oci8-2.0.8.tgz (186.4kB)	DLL	[Changelog]
2.0.7	stable	2014-02-10	oci8-2.0.7.tgz (186.3kB)	DLL	[Changelog]
2.0.6	stable	2013-10-21	oci8-2.0.6.tgz (185.2kB)	DLL	[Changelog]
2.0.5	stable	2013-10-20	oci8-2.0.5.tgz (183.8kB)		[Changelog]
2.0.4	devel	2013-09-27	oci8-2.0.4.tgz (183.4kB)		[Changelog]
2.0.3	devel	2013-09-27	oci8-2.0.3.tgz (183.3kB)		[Changelog]
2.0.2	devel	2013-09-06	oci8-2.0.2.tgz (182.9kB)		[Changelog]
2.0.1	devel	2013-09-03	oci8-2.0.1.tgz (182.7kB)		[Changelog]
2.0.0	devel	2013-07-24	oci8-2.0.0.tgz (183.1kB)		[Changelog]
1.4.10	stable	2013-07-08	oci8-1.4.10.tgz (165.3kB)	DLL	[Changelog]
1.4.9	stable	2012-10-22	oci8-1.4.9.tgz (165.3kB)		[Changelog]

- Now, you will see a page showing the package information and a DLL list for php versions 7.1. to 7.4. Select and download a thread-safe DLL suitable to the device you are using, in our case it would be [7.2 Thread Safe \(TS\) x64](#).

DLL List	
PHP 7.4	7.4 Non Thread Safe (NTS) x64 7.4 Thread Safe (TS) x64 7.4 Non Thread Safe (NTS) x86 7.4 Thread Safe (TS) x86
PHP 7.3	7.3 Non Thread Safe (NTS) x64 7.3 Thread Safe (TS) x64 7.3 Non Thread Safe (NTS) x86 7.3 Thread Safe (TS) x86
PHP 7.2	7.2 Non Thread Safe (NTS) x64 7.2 Thread Safe (TS) x64 7.2 Non Thread Safe (NTS) x86 7.2 Thread Safe (TS) x86
PHP 7.1	7.1 Non Thread Safe (NTS) x64 7.1 Thread Safe (TS) x64 7.1 Non Thread Safe (NTS) x86 7.1 Thread Safe (TS) x86

























5. Extract the downloaded files to a suitable location and open it.







































6. Select and copy 2 files from the extracted folder which are php_oci_11g.dll and php_oci_11g.pdb.


























CREDITS	12/10/2018 6:27 PM	File	1 KB
LICENSE	12/10/2018 6:27 PM	File	4 KB
php_oci8.dll	12/10/2018 6:27 PM	Application exten...	129 KB
php_oci8.pdb	12/10/2018 6:27 PM	PDB File	828 KB
php_oci8_11g.dll	12/10/2018 6:27 PM	Application exten...	130 KB
php_oci8_11g.pdb	12/10/2018 6:27 PM	PDB File	828 KB
php_oci8_12c.dll	12/10/2018 6:27 PM	Application exten...	132 KB
php_oci8_12c.pdb	12/10/2018 6:27 PM	PDB File	836 KB
README	12/10/2018 6:27 PM	File	1 KB

7. After copying the files paste them in the folder xampp -> php -> ext.

 anonymous	6/12/2020 9:33 AM	File folder	
 apache	6/12/2020 9:33 AM	File folder	
 cgi-bin	6/12/2020 9:36 AM	File folder	
 contrib	6/12/2020 9:33 AM	File folder	
 FileZillaFTP	6/12/2020 9:36 AM	File folder	
 htdocs	6/12/2020 1:36 PM	File folder	
 img	6/12/2020 9:33 AM	File folder	
 install	6/12/2020 9:36 AM	File folder	
 licenses	6/12/2020 9:33 AM	File folder	
 locale	6/12/2020 9:33 AM	File folder	
 mailoutput	6/12/2020 9:33 AM	File folder	
 mailtodisk	6/12/2020 9:33 AM	File folder	
 MercuryMail	6/12/2020 9:36 AM	File folder	
 mysql	6/12/2020 9:34 AM	File folder	
 perl	6/12/2020 9:35 AM	File folder	
 php	6/12/2020 9:36 AM	File folder	
 phpMyAdmin	6/12/2020 9:36 AM	File folder	
 sendmail	6/12/2020 9:36 AM	File folder	
 src	6/12/2020 9:33 AM	File folder	
 tmp	6/12/2020 9:33 AM	File folder	
 tomcat	6/12/2020 9:34 AM	File folder	
 webalizer	6/12/2020 9:36 AM	File folder	
 webdav	6/12/2020 9:33 AM	File folder	
 apache_start	6/7/2013 5:00 PM	Windows Batch File	1 KB

 cfg	6/12/2020 9:34 AM	File folder	
 CompatInfo	6/12/2020 9:34 AM	File folder	
 data	6/12/2020 9:34 AM	File folder	
 dev	6/12/2020 9:35 AM	File folder	
 docs	6/12/2020 9:34 AM	File folder	
 ext	6/12/2020 9:34 AM	File folder	
 extras	6/12/2020 9:34 AM	File folder	
 lib	6/12/2020 9:34 AM	File folder	
 man	6/12/2020 9:34 AM	File folder	
 pear	6/12/2020 9:36 AM	File folder	
 sasl2	6/12/2020 9:34 AM	File folder	
 scripts	6/12/2020 9:34 AM	File folder	

 php_com_dotnet.dll	2/28/2018 12:31 PM	Application exten...	75 KB
 php_curl.dll	2/28/2018 12:31 PM	Application exten...	453 KB
 php_dba.dll	2/28/2018 12:31 PM	Application exten...	111 KB
 php_enchant.dll	2/28/2018 12:31 PM	Application exten...	20 KB
 php_exif.dll	2/28/2018 12:31 PM	Application exten...	55 KB
 php_fileinfo.dll	2/28/2018 12:31 PM	Application exten...	4,892 KB
 php_ftp.dll	2/28/2018 12:31 PM	Application exten...	41 KB
 php_gd2.dll	2/28/2018 12:31 PM	Application exten...	1,390 KB
 php_gettext.dll	2/28/2018 12:31 PM	Application exten...	44 KB
 php_gmp.dll	2/28/2018 12:31 PM	Application exten...	233 KB
 php_imap.dll	2/28/2018 12:31 PM	Application exten...	799 KB
 php_interbase.dll	2/28/2018 12:31 PM	Application exten...	65 KB
 php_intl.dll	2/28/2018 12:31 PM	Application exten...	349 KB
 php_ldap.dll	2/28/2018 12:31 PM	Application exten...	181 KB
 php_mbstring.dll	2/28/2018 12:31 PM	Application exten...	1,273 KB
 php_mysqli.dll	2/28/2018 12:31 PM	Application exten...	91 KB
 php_oci8_11g.dll	12/10/2018 6:27 PM	Application exten...	130 KB
 php_oci8_11g.pdb	12/10/2018 6:27 PM	PDB File	828 KB
 php_oci8_12c.dll	2/28/2018 12:31 PM	Application exten...	129 KB
 php_odbc.dll	2/28/2018 12:31 PM	Application exten...	47 KB
 php_opcache.dll	2/28/2018 12:31 PM	Application exten...	345 KB
 php_openssl.dll	2/28/2018 12:31 PM	Application exten...	102 KB
 php_pdo_firebird.dll	2/28/2018 12:31 PM	Application exten...	24 KB

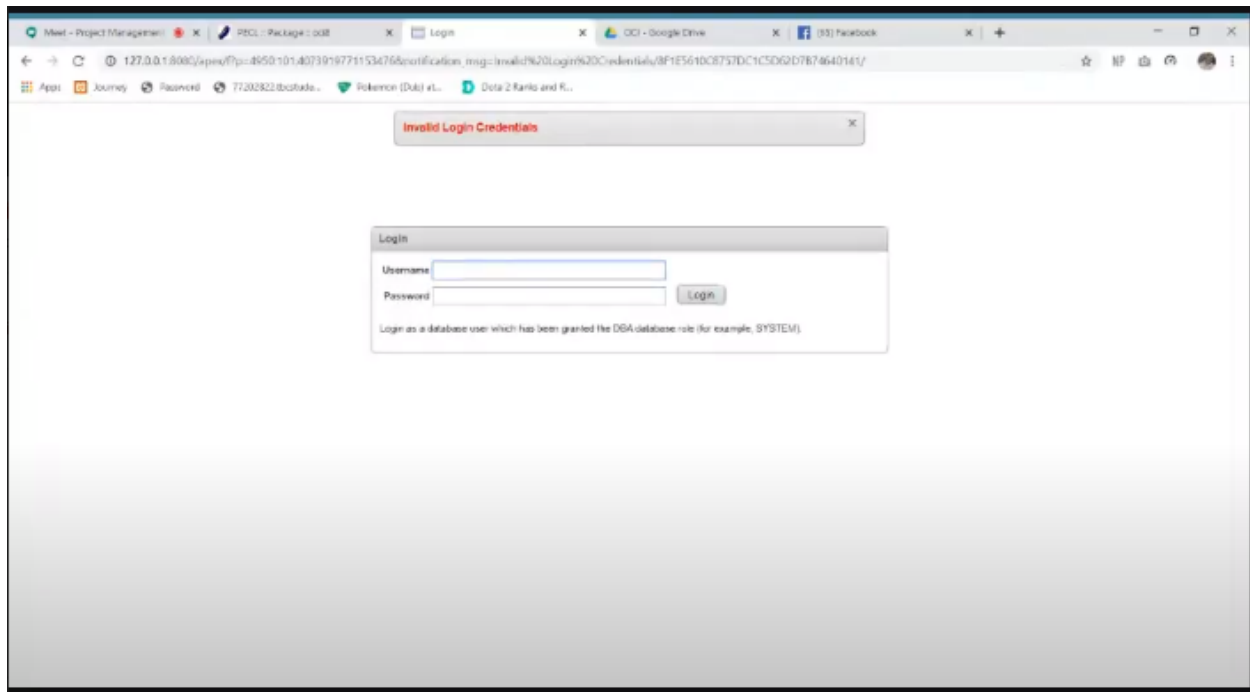
8. Go to the php folder in xampp and within the folder open the php.ini file (preferably open with notepad++).

 libsoaium.dll	2/28/2018 12:31 PM	Application exten...	271 KB
 libssh2.dll	2/28/2018 12:31 PM	Application exten...	180 KB
 libssl-1_1.dll	2/28/2018 12:31 PM	Application exten...	391 KB
 license	2/28/2018 12:31 PM	TXT File	4 KB
 msvcpr110.dll	8/19/2016 8:54 PM	Application exten...	523 KB
 msvcr110.dll	8/19/2016 8:54 PM	Application exten...	855 KB
 news	2/28/2018 12:31 PM	TXT File	84 KB
 nghttp2.dll	2/28/2018 12:31 PM	Application exten...	153 KB
 pci	6/12/2020 9:36 AM	File	1 KB
 pci	6/12/2020 9:36 AM	Windows Batch File	1 KB
 pci	1/27/2016 5:47 PM	Cascading Style S...	2 KB
 pciconf	6/12/2020 9:36 AM	File	18 KB
 pciconf	6/12/2020 9:36 AM	Windows Batch File	1 KB
 pear	6/12/2020 9:36 AM	Windows Batch File	5 KB
 peardev	6/12/2020 9:36 AM	Windows Batch File	5 KB
 pecl	6/12/2020 9:36 AM	Windows Batch File	5 KB
 phar.phar	2/28/2018 12:33 PM	Windows Batch File	1 KB
 pharcommand.phar	2/28/2018 12:33 PM	PHAR File	52 KB
 php	2/28/2018 12:31 PM	Application	103 KB
 php	2/28/2018 12:31 PM	GIF File	3 KB
 php	6/12/2020 9:36 AM	Configuration sett...	72 KB
 php.ini-development	2/28/2018 12:31 PM	INI-DEVELOPMEN...	71 KB
 php.ini-production	2/28/2018 12:31 PM	INI-PRODUCTION ...	71 KB
 php7apache2_4.dll	2/28/2018 12:31 PM	Application exten...	30 KB
 php7embed.lib	2/28/2018 12:31 PM	File	825 KB

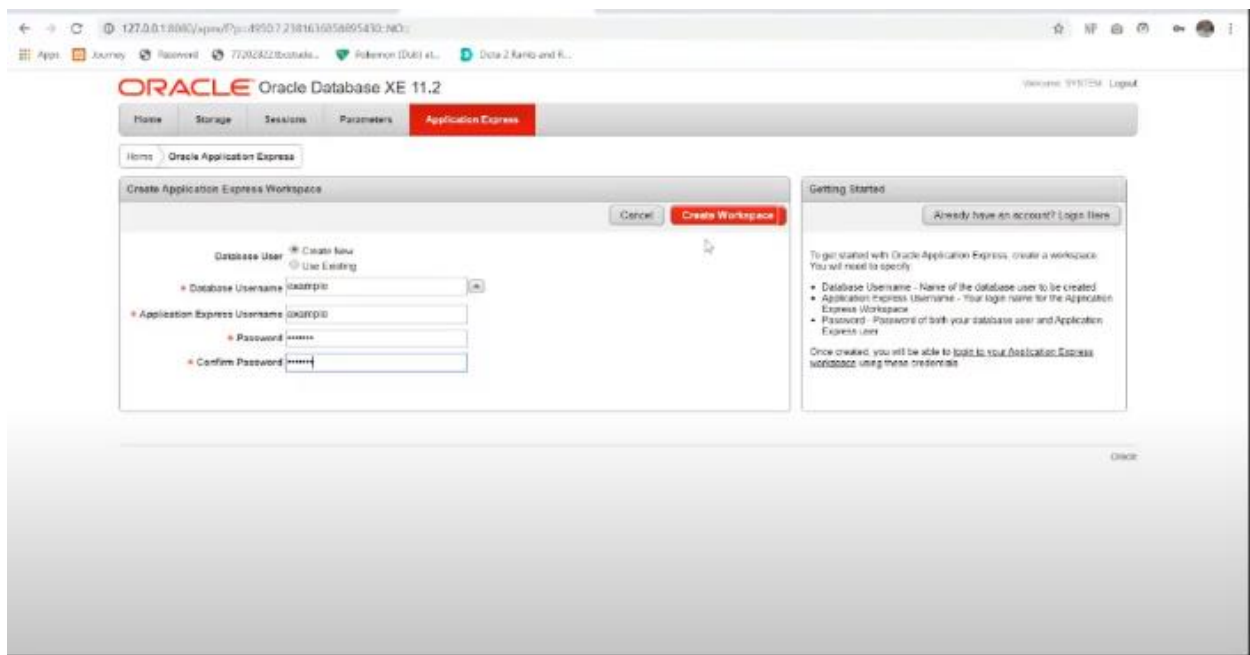
9. Within the file around the line 900 you will see a bunch of extensions, at the bottom of the list type in `extension=php_oci8_11g.dll`.

```
php.ini
883 ; extension folders as well as the separate PECL DLL download (PHP 5+).
884 ; Be sure to appropriately set the extension_dir directive.
885 ;
886 extension=bz2
887 extension=curl
888 extension=fileinfo
889 extension=gd2
890 extension=gettext
891 ;extension=gmp
892 ;extension=intl
893 ;extension=imap
894 ;extension=interbase
895 ;extension=ldap
896 extension=mbstring
897 extension=exif ; Must be after mbstring as it depends on it
898 extension=mysqli
899 ;extension=oci8_12c ; Use with Oracle Database 12c Instant Client
900 ;extension=openssl
901 ;extension=pdo_firebird
902 extension=pdo_mysql
903 ;extension=pdo_oci
904 ;extension=pdo_odbc
905 ;extension=pdo_pgsql
906 extension=pdo_sqlite
907 ;extension=pgsql
908 ;extension=shmop
909 extension=php_oci8_11g.dll
910
```

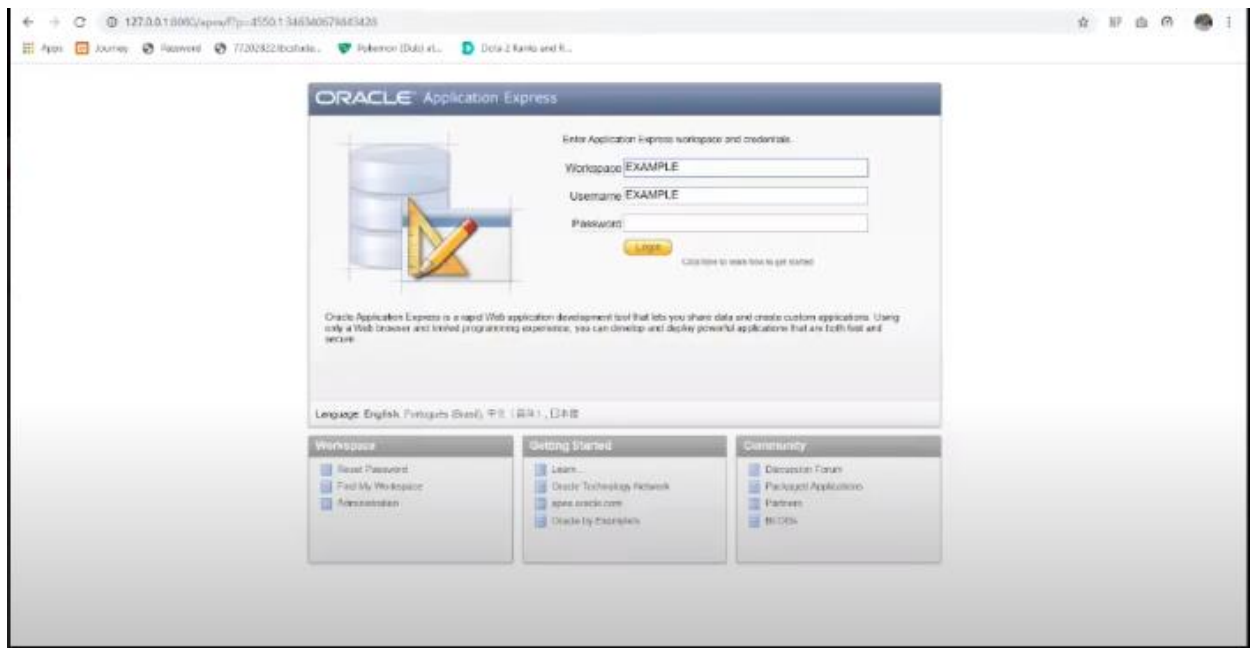
10. After the DLL extension was added, an Oracle application which we have installed was opened and it was login by providing username and password used during application installation.



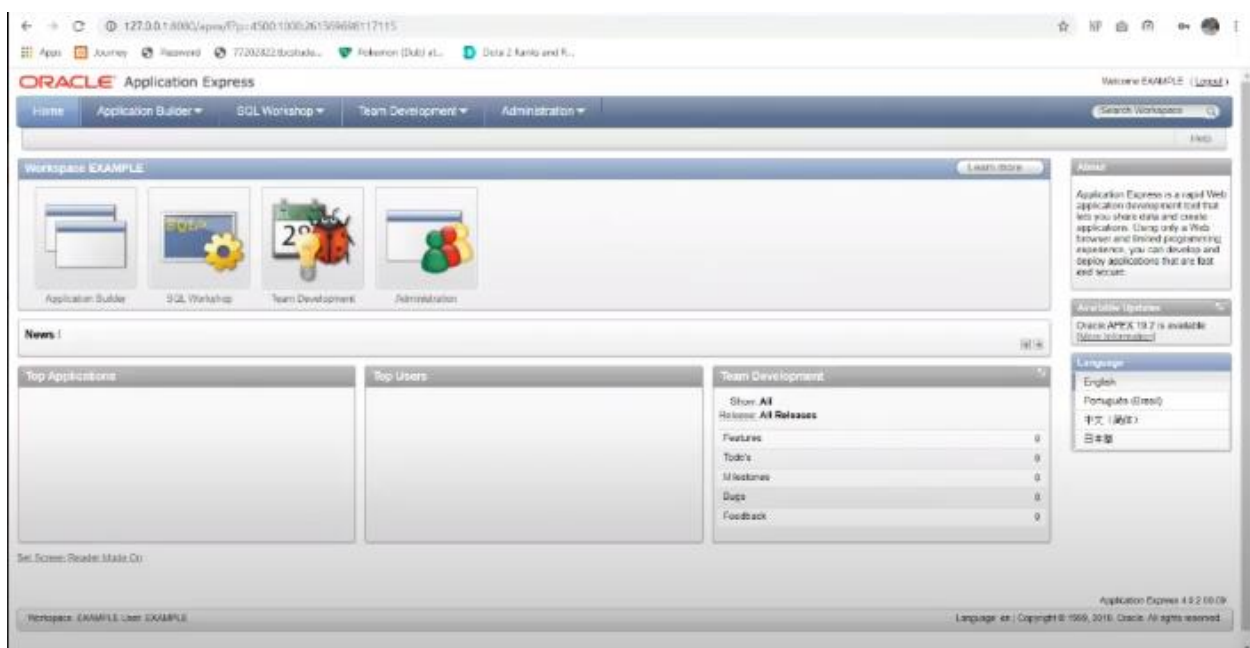
11. After it is login workspace was created which should be communicated by our php code with providing username and password.



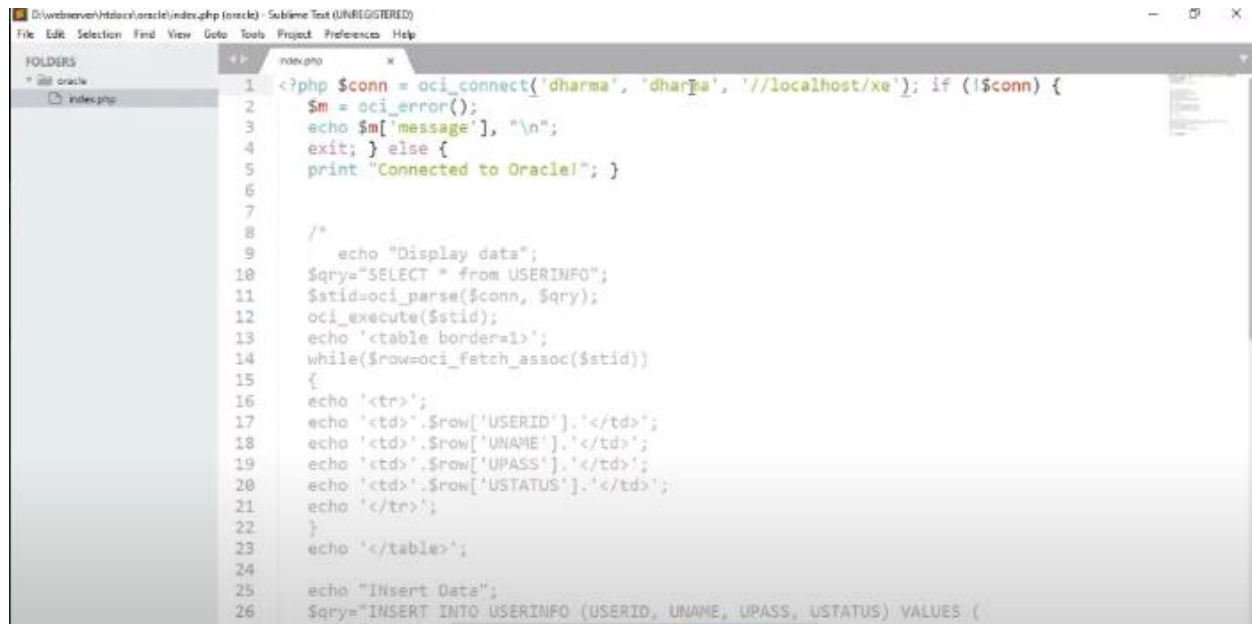
12. After workspace is created we can sign in and open the old version of oracle with username and password which we created to make workspace



13. our application express will look this way before updating

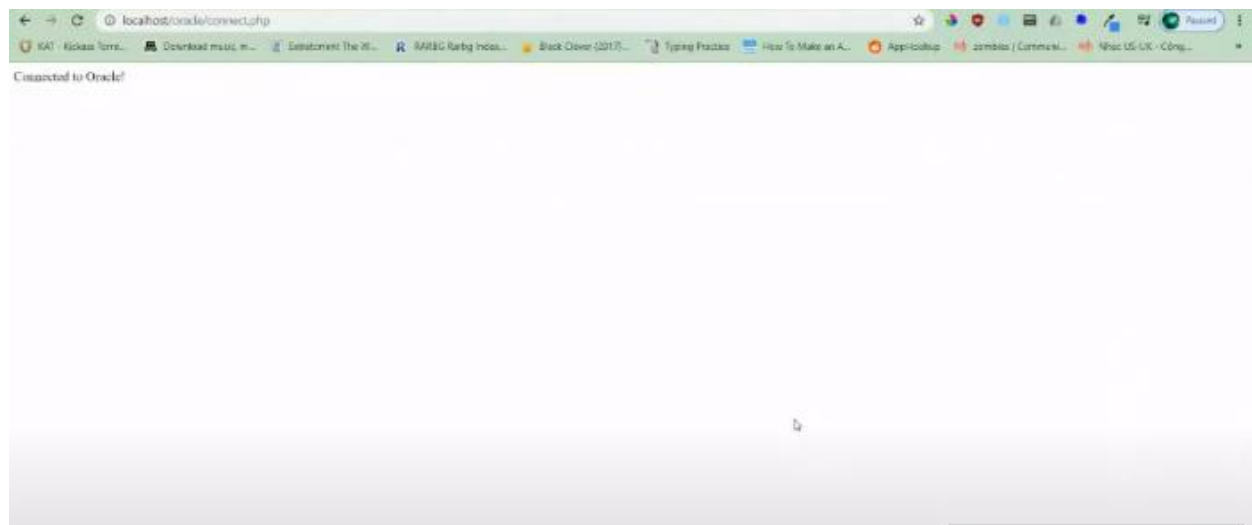


14. After this from files provided in our drive connect.php was downloaded and saved in a folder in htdocs and was edited with workspace name and password provided in oracle in oci_connect in line 1.



```
1 <?php $conn = oci_connect('dharma', 'dharma', '//localhost/xepdb1'); if (!$conn) {
2     $m = oci_error();
3     echo $m['message'], "\n";
4     exit; } else {
5     print "Connected to Oracle!"; }
6
7
8     /*
9     echo "Display data";
10    $qry="SELECT * from USERINFO";
11    $stid=oci_parse($conn, $qry);
12    oci_execute($stid);
13    echo '<table border=1>';
14    while($row=oci_fetch_assoc($stid))
15    {
16    echo '<tr>';
17    echo '<td>'. $row['USERID']. '</td>';
18    echo '<td>'. $row['UNAME']. '</td>';
19    echo '<td>'. $row['UPASS']. '</td>';
20    echo '<td>'. $row['USTATUS']. '</td>';
21    echo '</tr>';
22    }
23    echo '</table>';
24
25    echo "Insert Data";
26    $qry="INSERT INTO USERINFO (USERID, UNAME, UPASS, USTATUS) VALUES (
```

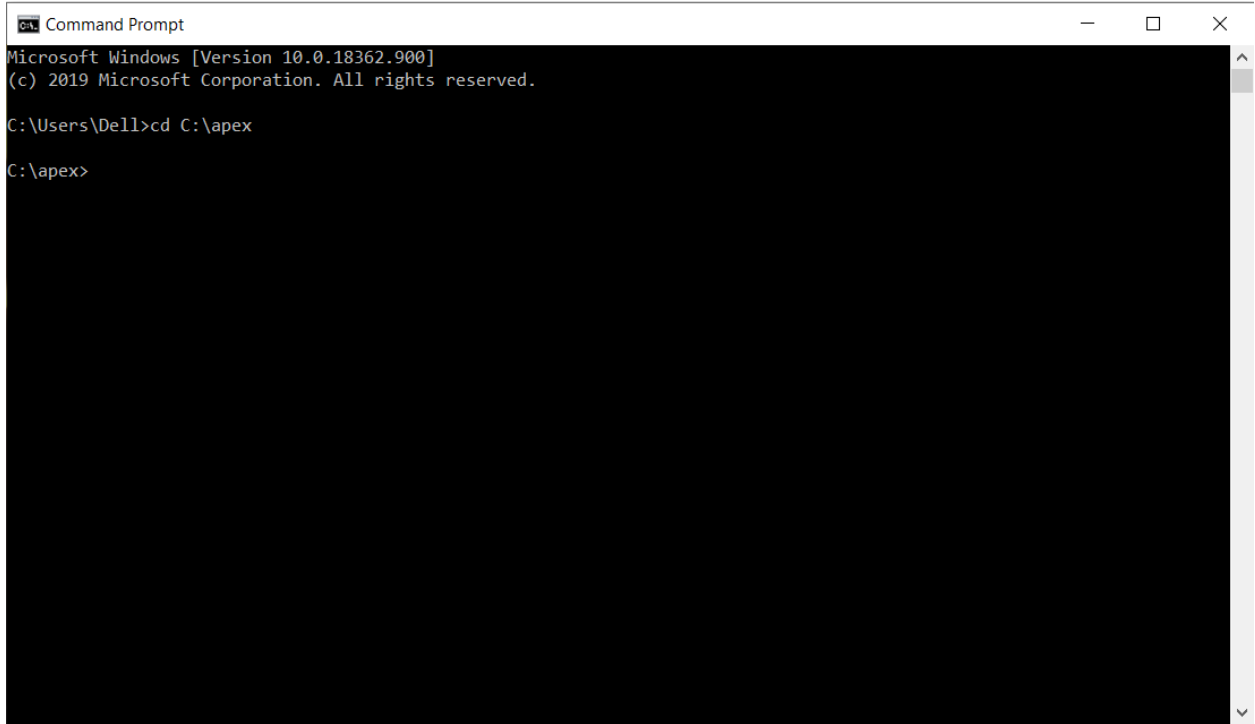
15. After editing connect.php it was run in localhost and connected to oracle msg was observed on screen.



16. Now, go to <https://www.oracle.com/tools/downloads/apex-192-downloads.html> and download oracle APEX 19.2.

17. After the download has been completed, extract the apex folder to the C drive.

18. Open command prompt and change the directory to the recently extracted apex folder.

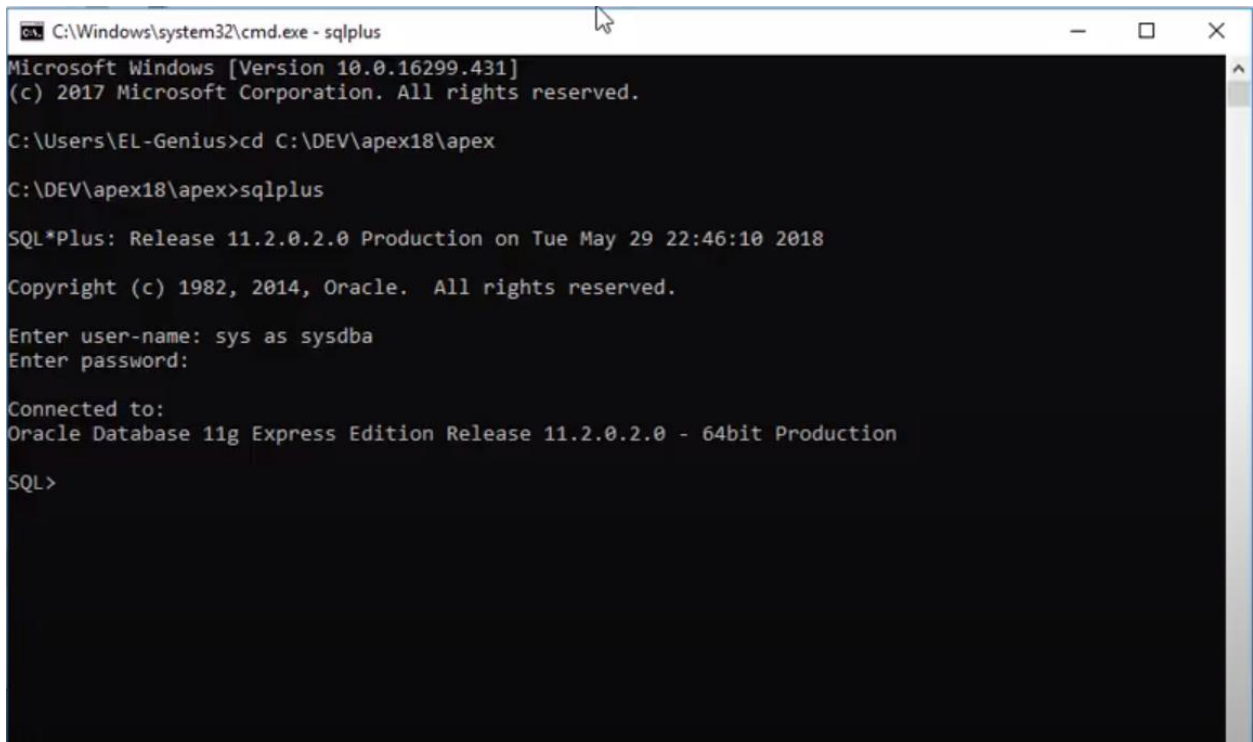


```
Command Prompt
Microsoft Windows [Version 10.0.18362.900]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Dell>cd C:\apex

C:\apex>
```


19.Type in and enter 'sqlplus /nolog', then type 'CONNECT SYS as SYSDBA' and enter your password to connect into the database.



```
C:\Windows\system32\cmd.exe - sqlplus
Microsoft Windows [Version 10.0.16299.431]
(c) 2017 Microsoft Corporation. All rights reserved.

C:\Users\EL-Genius>cd C:\DEV\apex18\apex

C:\DEV\apex18\apex>sqlplus

SQL*Plus: Release 11.2.0.2.0 Production on Tue May 29 22:46:10 2018

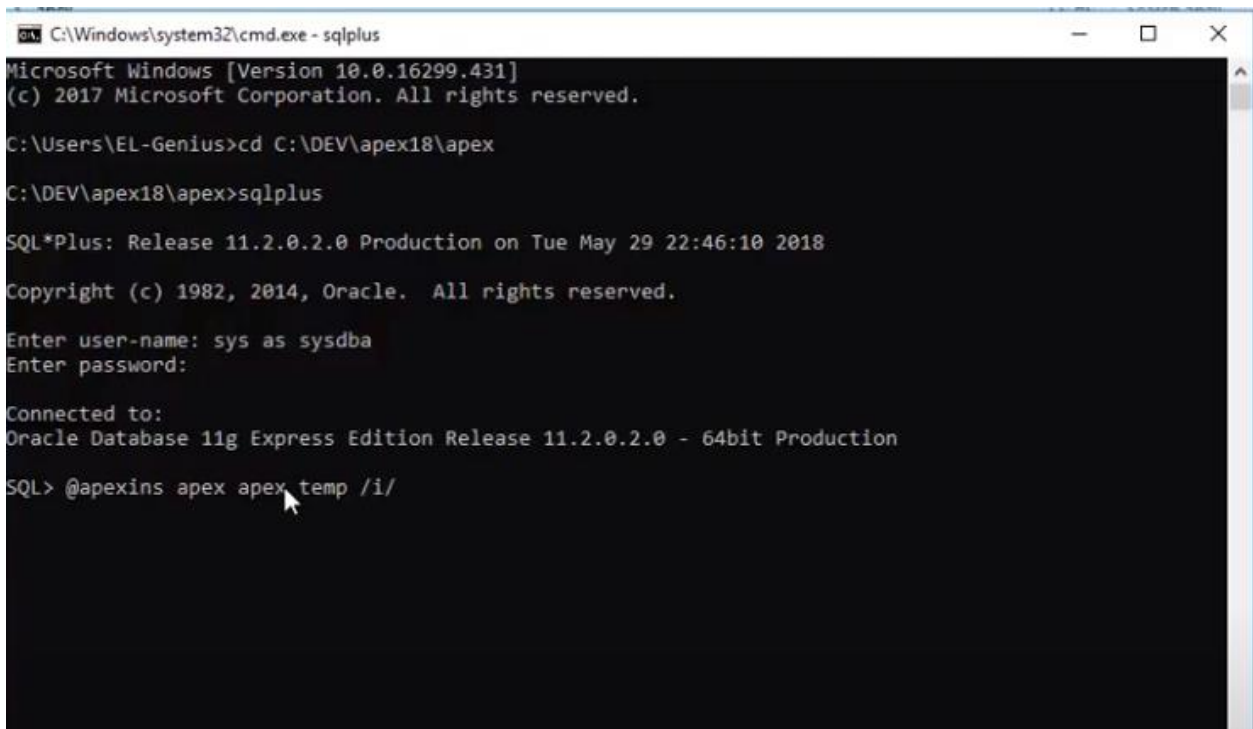
Copyright (c) 1982, 2014, Oracle. All rights reserved.

Enter user-name: sys as sysdba
Enter password:

Connected to:
Oracle Database 11g Express Edition Release 11.2.0.2.0 - 64bit Production

SQL>
```

20.Now, enter '@apexins SYSAUX SYSAUX TEMP /i/' to install application expressions. This process will take a few minutes.



```
C:\Windows\system32\cmd.exe - sqlplus
Microsoft Windows [Version 10.0.16299.431]
(c) 2017 Microsoft Corporation. All rights reserved.

C:\Users\EL-Genius>cd C:\DEV\apex18\apex

C:\DEV\apex18\apex>sqlplus

SQL*Plus: Release 11.2.0.2.0 Production on Tue May 29 22:46:10 2018

Copyright (c) 1982, 2014, Oracle. All rights reserved.

Enter user-name: sys as sysdba
Enter password:

Connected to:
Oracle Database 11g Express Edition Release 11.2.0.2.0 - 64bit Production

SQL> @apexins apex apex temp /i/
```

21.After the installation has been completed repeat step 13.

22.Type '@apex_epg_config.sql C:\' to configure the Embedded PL/SQL Gateway (EPG). This process will also take some time.

```
Command Prompt - sqlplus /nolog
Microsoft Windows [Version 10.0.18362.900]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Dell>cd C:\apex

C:\apex>sqlplus /nolog

SQL*Plus: Release 11.2.0.2.0 Production on Sat Jun 13 19:48:31 2020

Copyright (c) 1982, 2010, Oracle. All rights reserved.

SQL> @apex_epg_config.sql
```

23.If you did everything right the upgrade should have happened and you will receive the following page when you go to <http://127.0.0.1:8080/apex/> or double click on the previously installed oracle database.

