

Installation Guide for Oracle Database Express Edition

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TEC- 5970A

PHP Development with Oracle

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Note:

At the time of this writing, Oracle has released 12c for its database, including Enterprise Edition and Standard Edition. Oracle still supports other versions of its database including 11g Enterprise and Expression Edition. For the purpose of this class, any Oracle database edition will work, including its Enterprise, Standard or Express Edition.

This guide was developed based upon Oracle 11g Express Edition.

May 20, 2015.

About Oracle 11g XE:

Oracle Database XE is a great database for:

1. **Developers** using PHP, Java, .NET, XML, or other language to interact with a database.
2. **DBAs** who need a free database for training.
3. **Educational institutions and students** for their curriculum.

Oracle Database XE can be installed on a developer's computer (either on laptop or desktop). XE will store up to 11GB of user data, use up to 1GB of memory, and use one CPU on the host machine.

Oracle Database Installation:

In order to have an Oracle database in your local system, you need to follow the steps below

1. Register in the Oracle official web site.

<http://www.oracle.com/technetwork/database/database-technologies/express-edition/downloads/index.html>

2. Download the Oracle 11g XE (Express Edition) from the website, by accepting the terms and conditions.

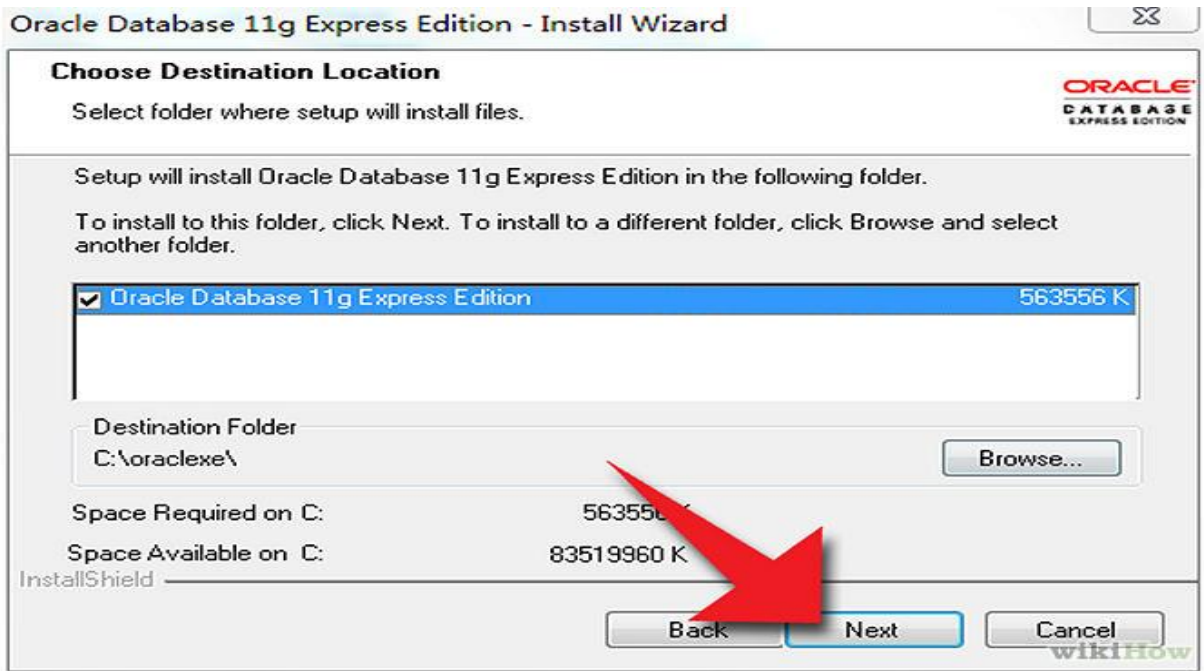
Version: 11.2.0.0

Downloaded file size: 324MB

3. After downloading the file we need to click on the next button for further installation. The net screen ask you to accept the license agreement and then choose next to process. The screen shows in the beta license agreement.

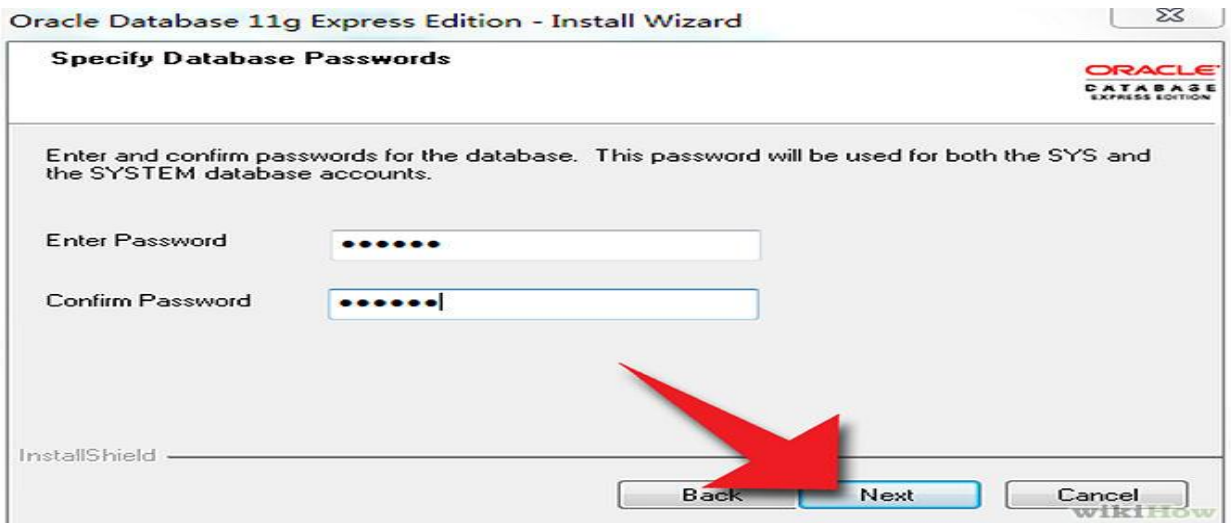


4. The next screen asks if you want to accept the c:\oracleexe default directory or chose another and also it gives you information that the amount of space it is utilizing on your disk and amount of space that is available on your drive.



1.1 Space used by the database on your disc to install.

5. While installing the database the next screen requires you to enter a database password for the SYS and the SYSTEM schemas. Make sure your entries match and click next to continue with the install.



1.2 Providing the database credentials

6. Finally, you will get the page telling you that you have successfully installed Oracle Express Edition and asking if you want to start it now.



Database Architecture:

The architecture can be classified as

- 1) Memory Structures
- 2) Background Processes
- 3) Disk Utilization Structure

Memory Structures: There are two memory structures on oracle instance

SGA (System Global Area): It stores the several components of memory usage that are designed to execute the process to obtain the data for user queries.

PGA (Program Global Area): It is an area in memory that helps user processes to execute.

Background Processes (BG Processes):

The oracle instances will be doing some tasks behind the scenes using BG Processes. No user processes never interfaces directly with I/O, because BG Processes will handle everything. DBWR, LGWR are few such process which will be running behind.

Disk Utilization Structure:

Disk Management processing is an important aspect a DBA should know. Two ways in which this should happen is as follows

- 1) Logical data structures
- 2) Physical view of Storage

Database Processes:

Oracle Database creates server Process to handle the requests. It can be Dedicated Server Process (DSP) or Shared Server Process (SSP). By default DSP will be enabled but for SSP a special Configuration need to be done.

Shared server can be enabled by setting the SHARED_SERVERS parameter to a value greater than zero using the alter statement. The number which you assign

to `SHARED_SERVER` parameter will decide how many shared server are to be maintained.