

STEPS ON HOW TO CONNECT TO ORACLE DATABASE

Connecting PHP 8.1 with Oracle Database requires configuring PHP to use the OCI8.

1. Prerequisites

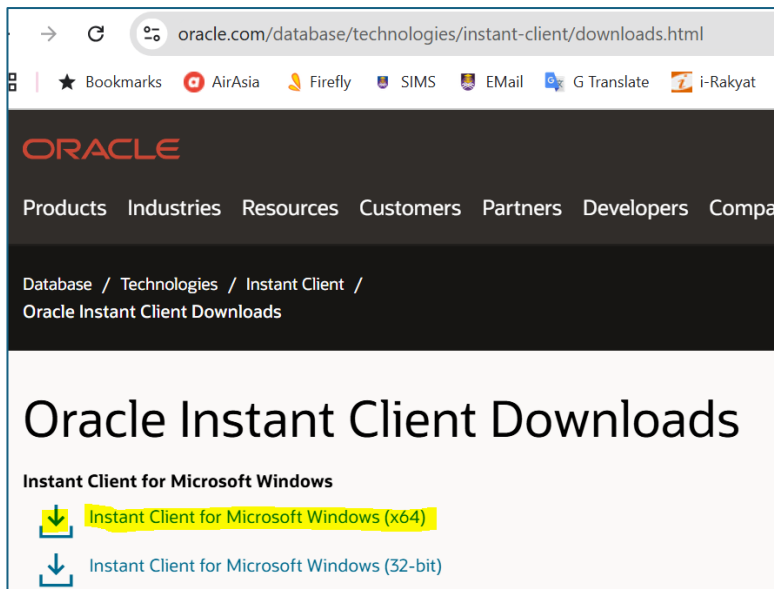
1. **Oracle Database:** Ensure Oracle Database is installed and running.
2. **PHP 8.1:** Installed and configured with a web server like Apache (use XAMP / Laragon)
3. **Oracle Instant Client:** Required to enable communication between PHP and Oracle.

2. Install Oracle Instant Client

Oracle Instant Client provides the libraries needed to connect PHP to Oracle.

a. Download Oracle Instant Client

1. Go to the Oracle Instant Client download page
(<https://www.oracle.com/database/technologies/instant-client/downloads.html>)



2. Download the following packages:

- **Basic Package:** Required for connecting to Oracle.

Permanent links to the latest packages are: Basic , Basic Light , SQL*Plus , Tools , SDK , JDBC Supplement , ODBC	
Version 23.6.0.24.10	
Version 21.15.0.0.0	
Version 19.25.0.0.0	
Base - one of these packages is required	
Name	Download
Basic Package	instantclient-basic-windows.x64-19.25.0.0.0dbbru.zip

b. Install Oracle Instant Client

1. Extract the .zip file to a directory, e.g., C:\instantclient_19_25
2. Add the directory to the PATH environment variable:
 - Open **Environment Variables** from the Start menu.
 - Edit the PATH variable and add C:\instantclient_19_25
3. In the folder “C:\instantclient_19_25”, copy the following dll file



oci.dll



oraons.dll

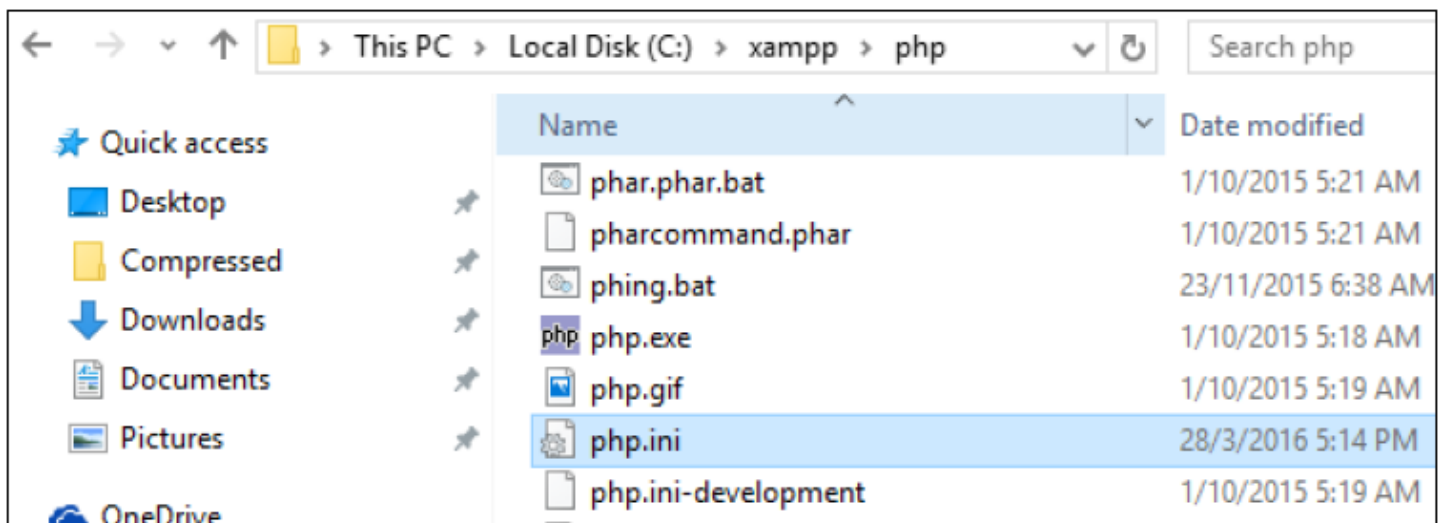


oraoci19.dll

and paste it at C:\laragon\bin\apache\httpd-2.4.54-win64-VS16\bin (for laragon) or C:\xampp\apache\bin (for xamp)

3. Enable OCI8 or PDO_OCI in PHP

1. Open PHP configuration file at c:\xampp\php\php.ini using Notepad.
For Laragon. Click Menu→PHP→php.ini

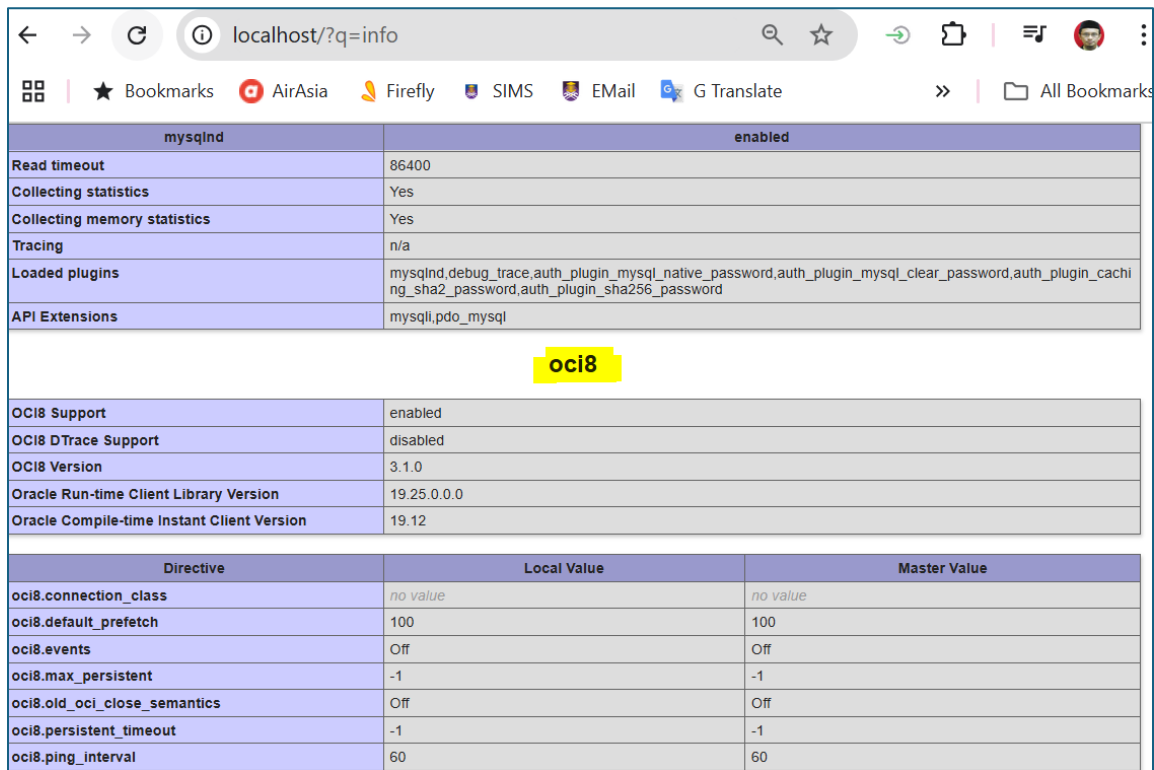


2. Find extension line. | ;extension=php_oci8_19, then uncomment the extension by remove the semicolon (;) the extension word .

```
php.ini
925 ;extension=gmp
926 extension=intl
927 ;extension=imap
928 ;extension=ldap
929 extension=mbstring
930 extension=exif ; Must be after mbstring as it depends on i
931 extension=mysqli
932 ;extension=oci8 ; Use with Oracle Database 12c Instant Client
933 extension=oci8_19 ; Use with Oracle Database 19 Instant Client
934 ;extension=odbc
```

3. Save and close the php.ini configuration file.
4. Restart laragon / xamp.

5. To check Oracle OCI8 is enabled, run `phpinfo()`, then you will see the following **oci8** driver appear.



mysqlnd	enabled
Read timeout	86400
Collecting statistics	Yes
Collecting memory statistics	Yes
Tracing	n/a
Loaded plugins	mysqlnd,debug_trace,auth_plugin_mysql_native_password,auth_plugin_mysql_clear_password,auth_plugin_caching_sha2_password,auth_plugin_sha256_password
API Extensions	mysql,pdo_mysql

OCI8 Support	enabled
OCI8 DTrace Support	disabled
OCI8 Version	3.1.0
Oracle Run-time Client Library Version	19.25.0.0.0
Oracle Compile-time Instant Client Version	19.12

Directive	Local Value	Master Value
oci8.connection_class	no value	no value
oci8.default_prefetch	100	100
oci8.events	Off	Off
oci8.max_persistent	-1	-1
oci8.old_oci_close_semantics	Off	Off
oci8.persistent_timeout	-1	-1
oci8.ping_interval	60	60

6. Now, you can create a PHP page to test your Oracle 11g database connection. Below is a sample of PHP code.

```
<?php
// php & Oracle DB connection file

$user = "hr"; //oracle username
$pass = "hr"; //Oracle password
$host = "localhost:1521/FREEPDB1"; //server name or ip address
$dbconn = oci_connect($user, $pass, $host);
if (!$dbconn) {
    $e = oci_error();
    trigger_error(htmlentities($e['message'], ENT_QUOTES), E_USER_ERROR);
} else {
    echo "ORACLE DATABASE CONNECTED SUCCESSFULLY!!!<br>"; //you can remove this
}
?>
```