

# Installation tutorial for Oracle and SQL Developer

Download Oracle DBMS. The databases that we want to query will be stored in Oracle DBMS and it will be possible to interact in a complete and easy fashion through the Oracle SQL Developer.

Oracle SQL developer is a free graphic environment made available by *Oracle* to develop or simply execute queries and SQL *scripts* in an Oracle DBMS.

In the following paragraphs, we explain the necessary procedures to install and configure both software on a PC.

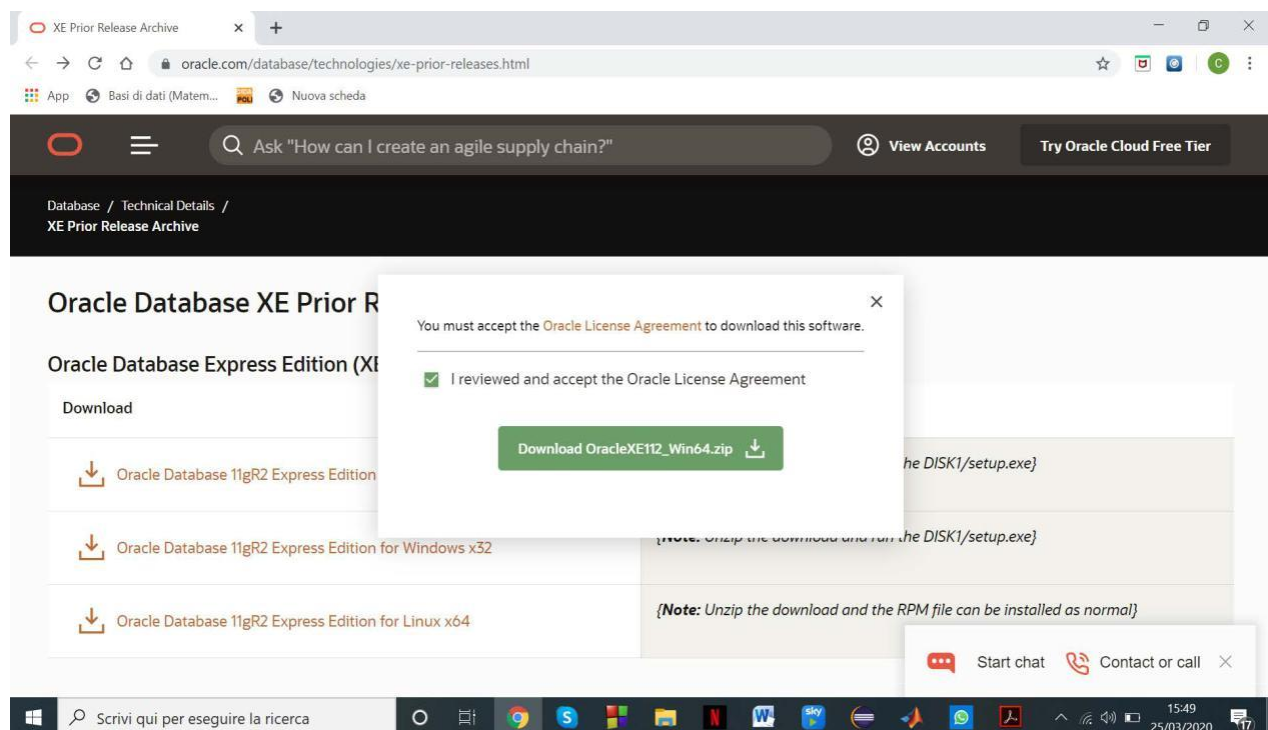
## ***INSTALLATION OF ORACLE DATABASE 11g EXPRESS EDITION***

Download the software from this link

<http://www.oracle.com/technetwork/indexes/downloads/index.html>

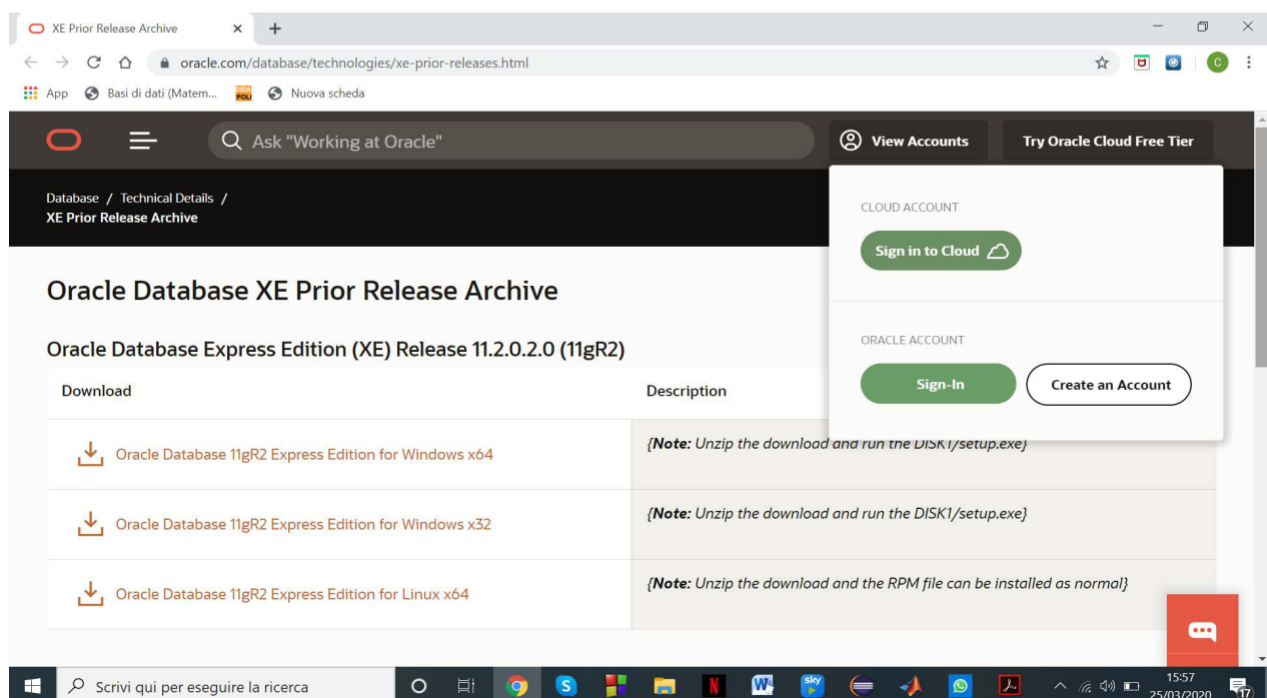
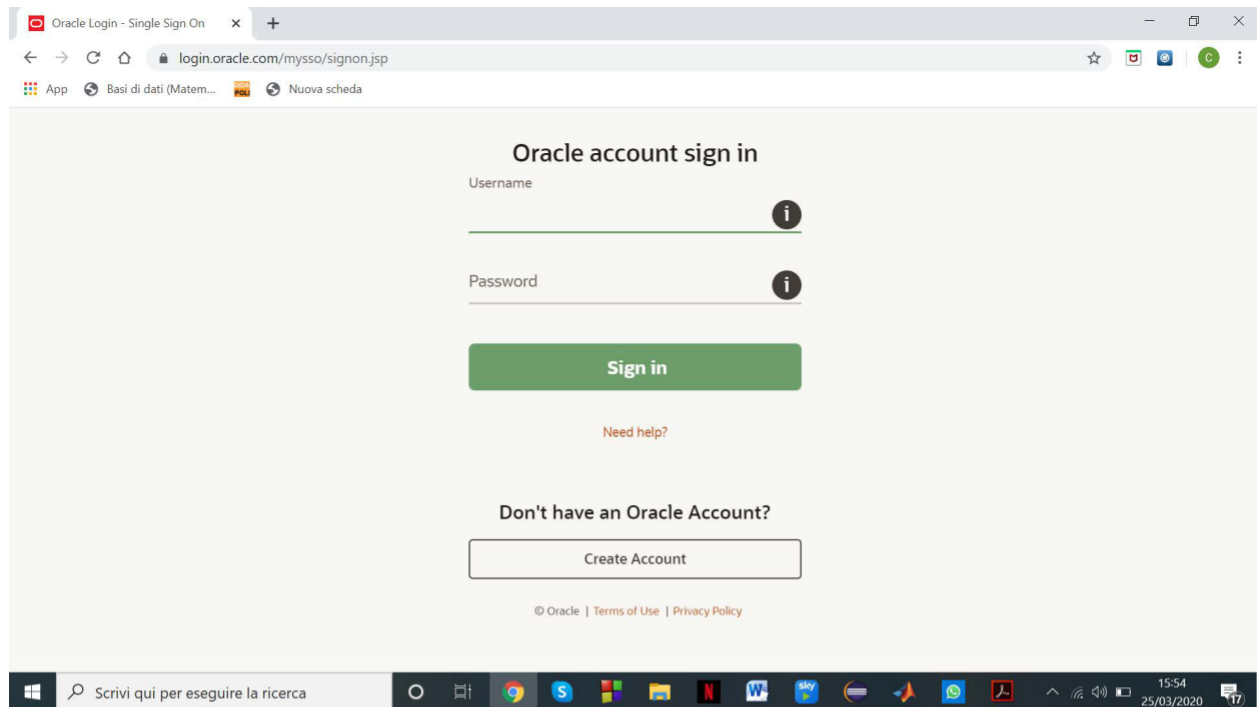
Once the page is loaded select the version 11g Express Edition. Even though this version is not the most recent, we advise you use it because it is easier to install, as well as lighter. Furthermore, the same version of the software is installed on the computers in the LABINF.

It is necessary to accept the License Agreements and select the download for the operating system of your computer (in this tutorial we will do everything for windows x64, the first on the list).



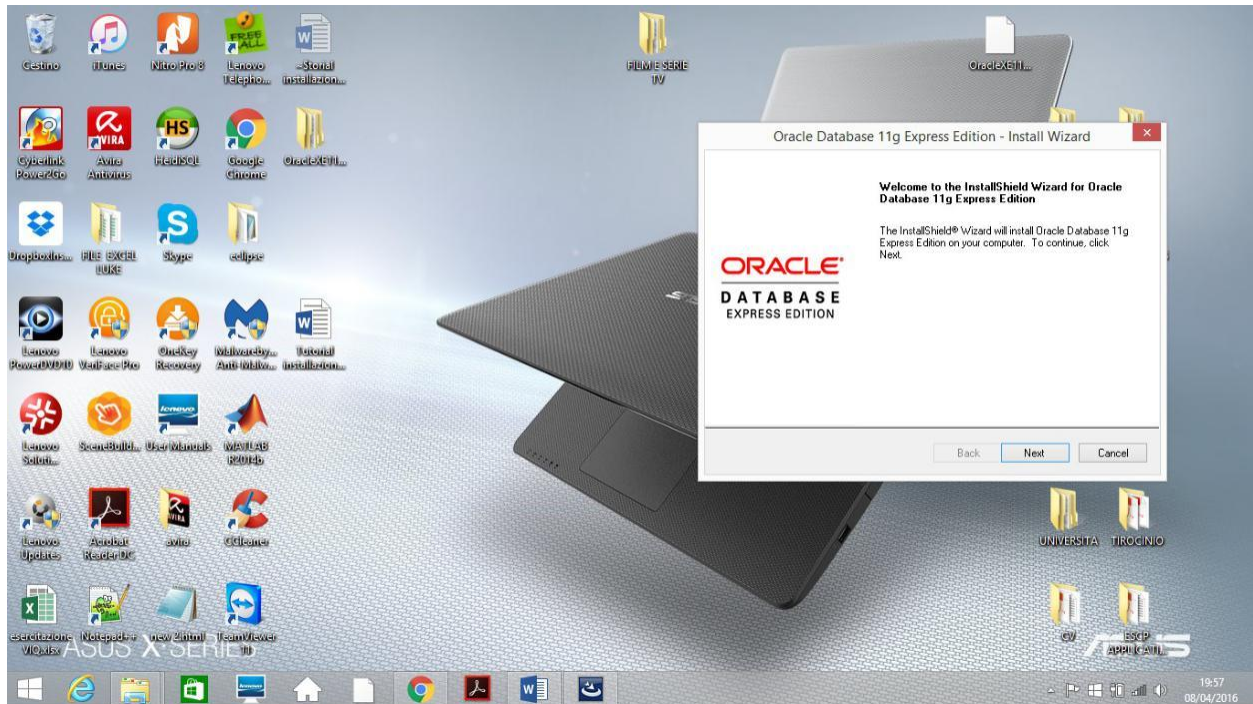
The start of the download requires the creation of a free Oracle account, as you can see in the figure below, an account can be created by clicking on the button “Create account”. It is advised to create an account using the university e-mail. After, go back to the page in the figure below and sign in.

It is possible to use the previous link and log in through the button “View account” in the top right corner and then Sign in.



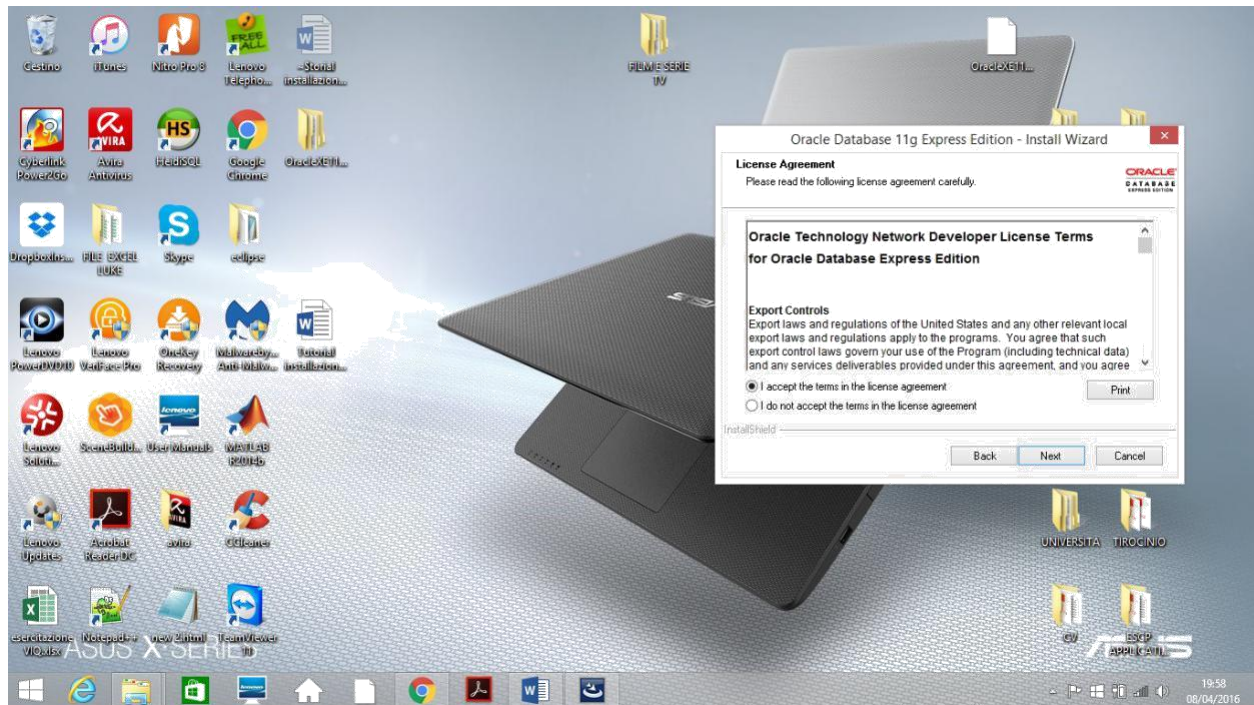
Now that you are signed up you can download the program. Simply click on the link associated with the version of Oracle database Express Edition 11g for Windows x64 and the download will start.

Once downloaded, unzip the zip file. On the inside there is a .exe file, which is setup.exe. After a first loading, the installation procedure page will open.

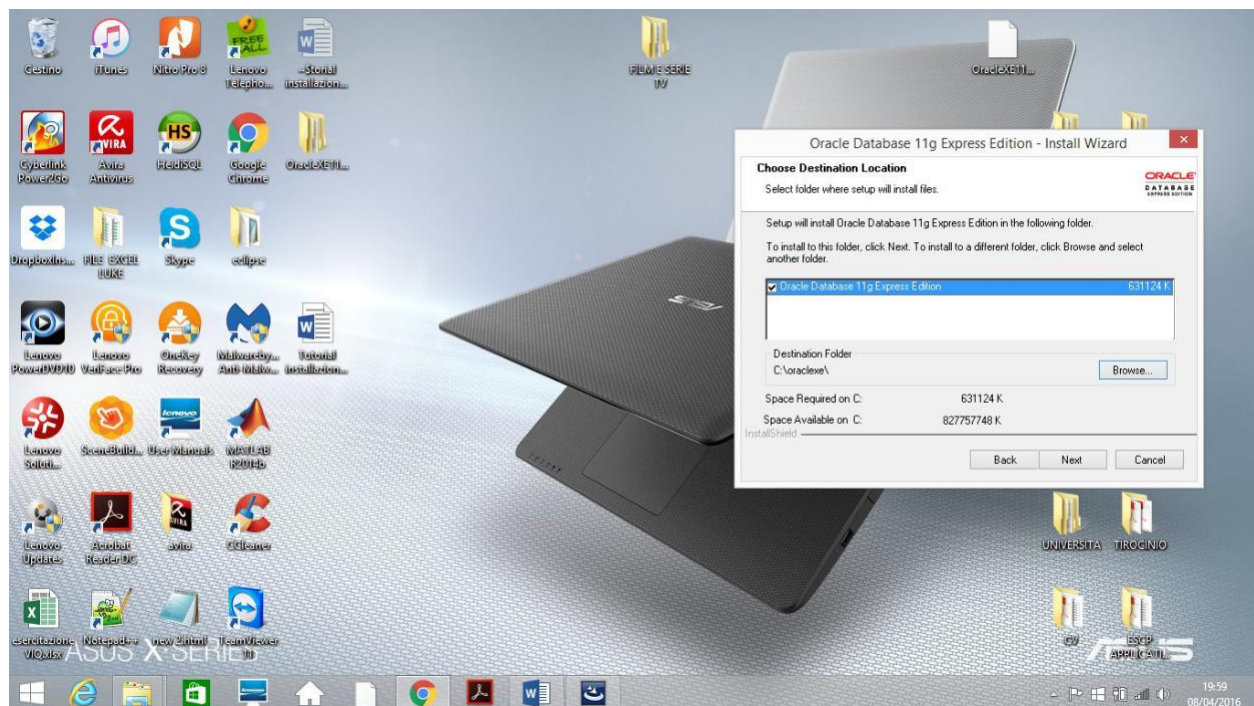


Click "next", and then accept the licensing term and click "next" again.

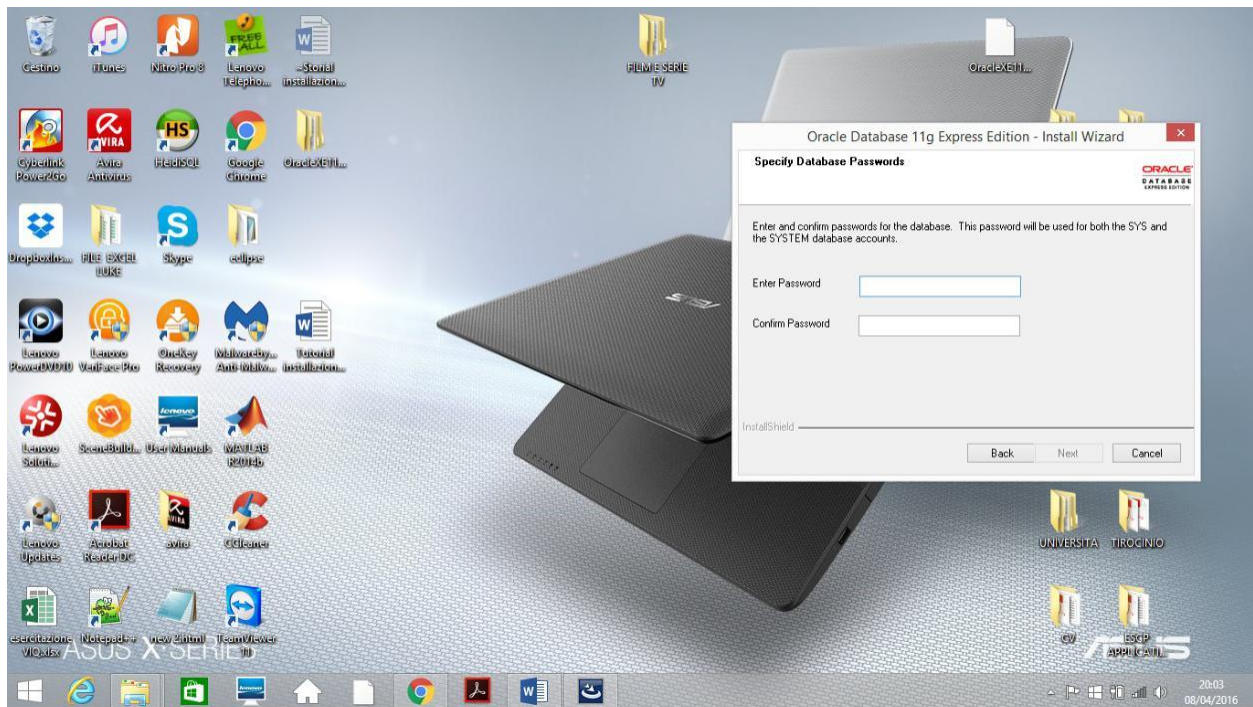




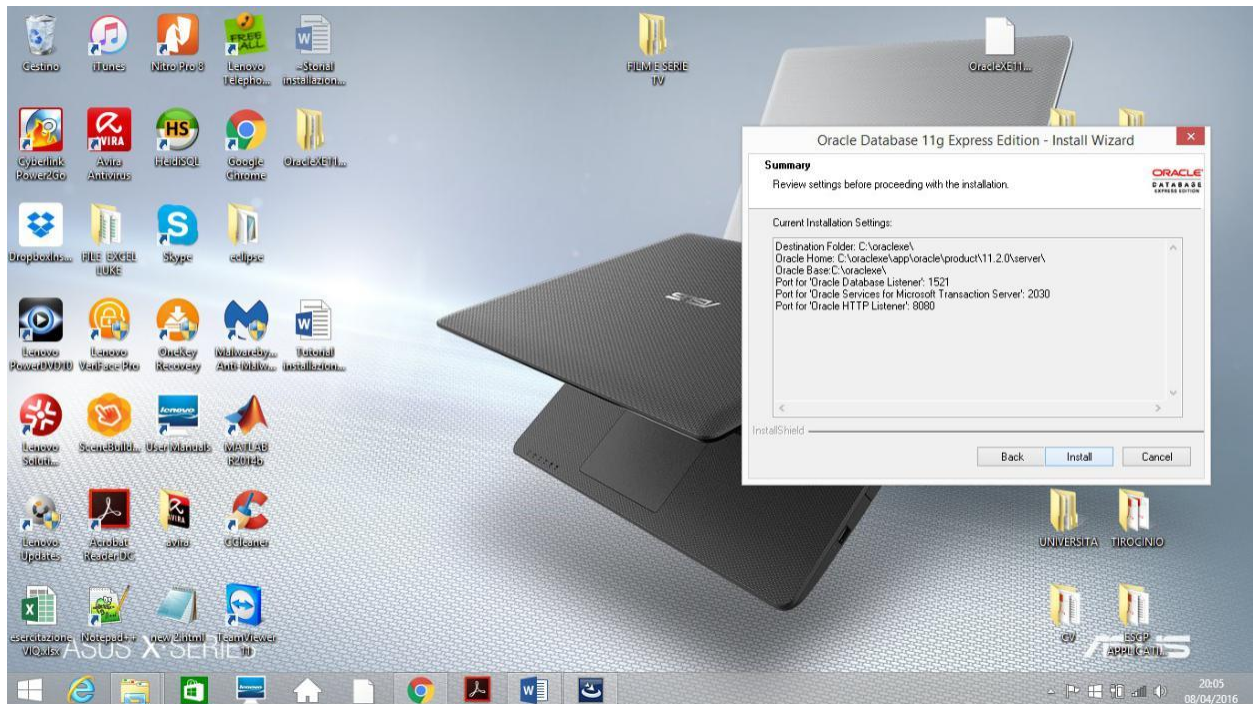
Select the folder of your pc in which you want to install the application and then click on next (we advise to leave the installation folder as suggested by default)



Now the installation procedure will ask for a password that will be used to login in the administration Account of Oracle, that is SYS and SYSTEM (we have set the following password: admin).

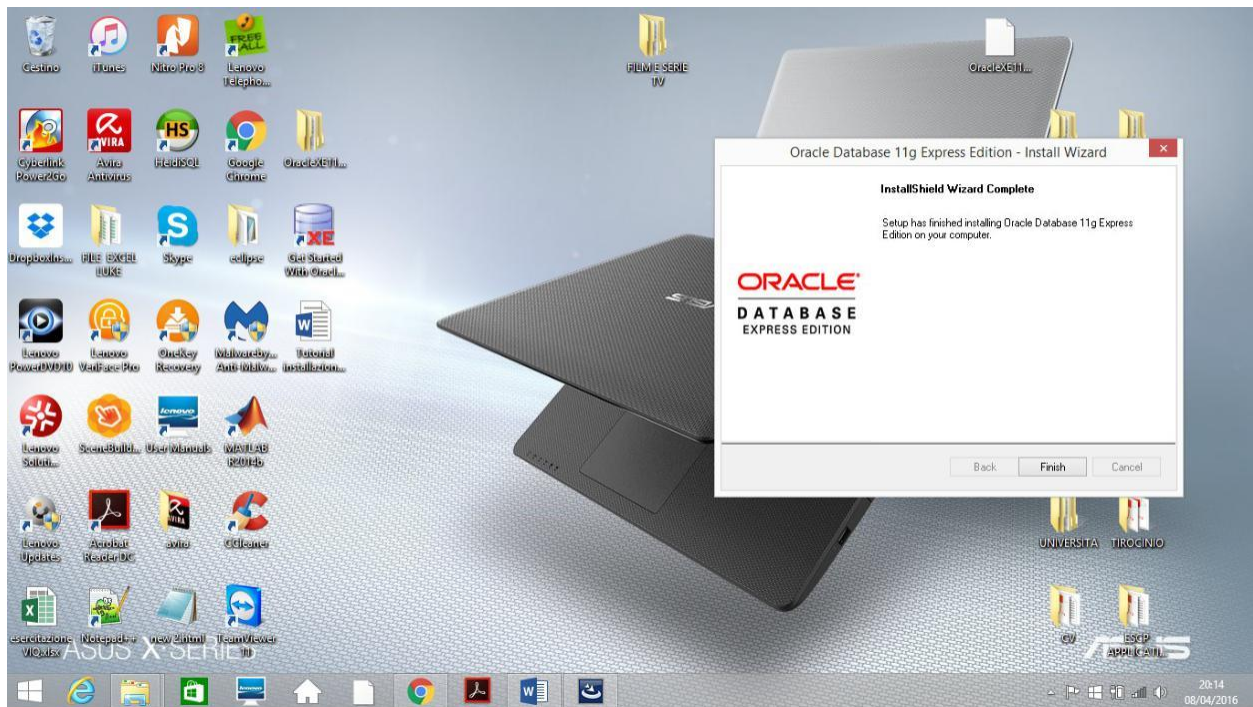


The application can now be installed by clicking on install.





The procedure is finally concluded by clicking on Finish once the installation procedure ends.



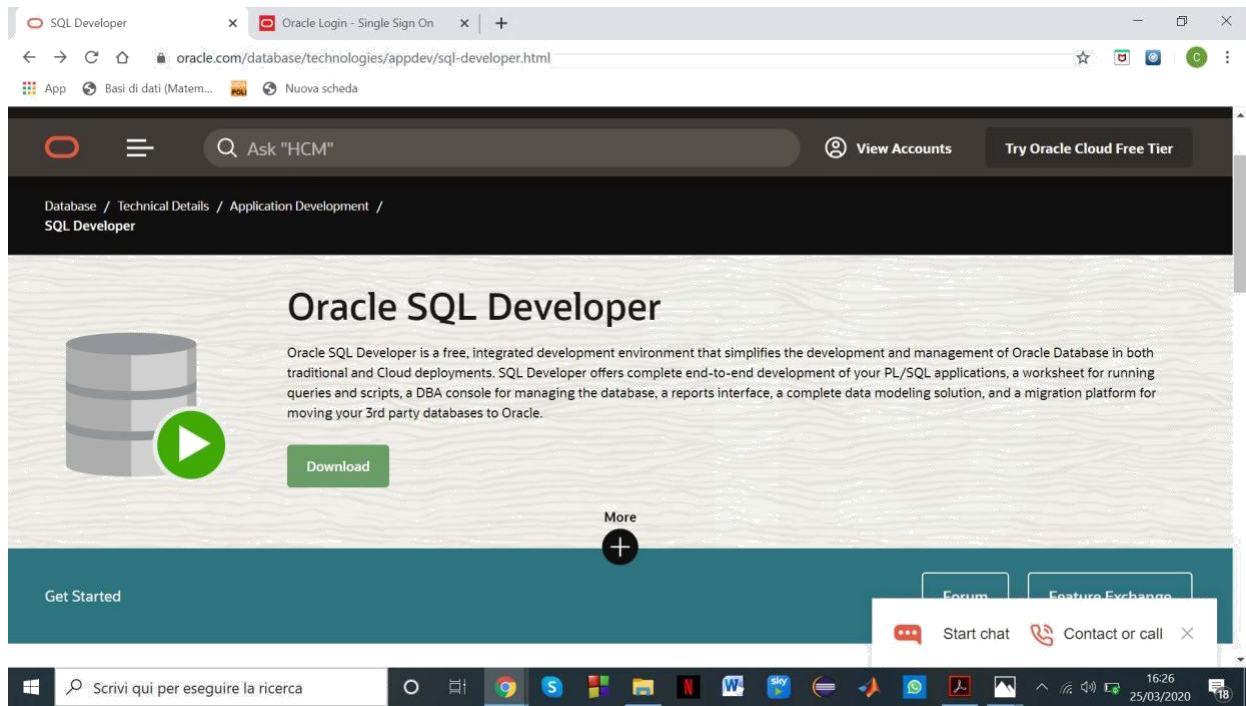
Please note: in order to open Oracle’s web interface, click on the icon “Get Started with Oracle Databases 11g Express Edition” that has been created on the desktop. The icon must be opened with the browser, but sometime some errors may occur. In this case, try to open in with IE or Firefox. Furthermore, the first time that Oracle is opened, you must login with the username “SYSTEM” and the password (“admin” in our case) that have been configured during the installation process.

## ***ISTALLATION ORACLE SQL DEVELOPER***

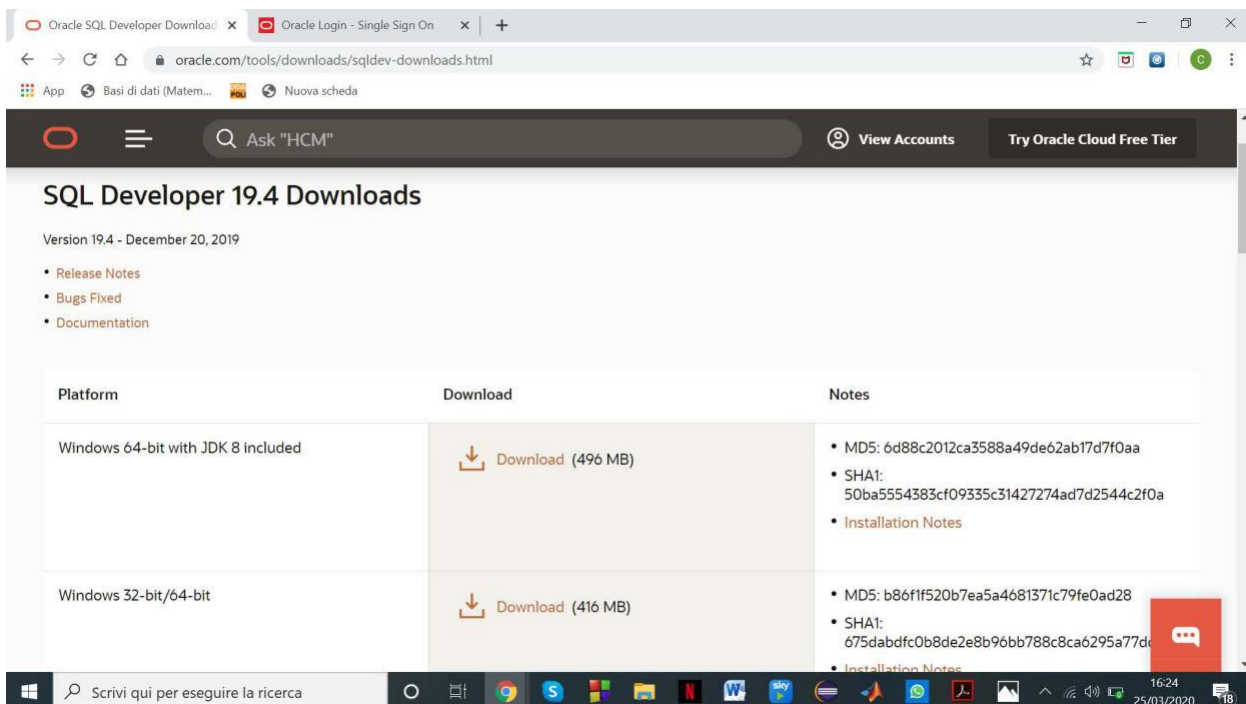
Now install Oracle SQL Developer in order to interact with the databases stored inside the DBMS Oracle.

As first step, download the installation packet of SQL Developer going back on the Oracle website. Use the following link:

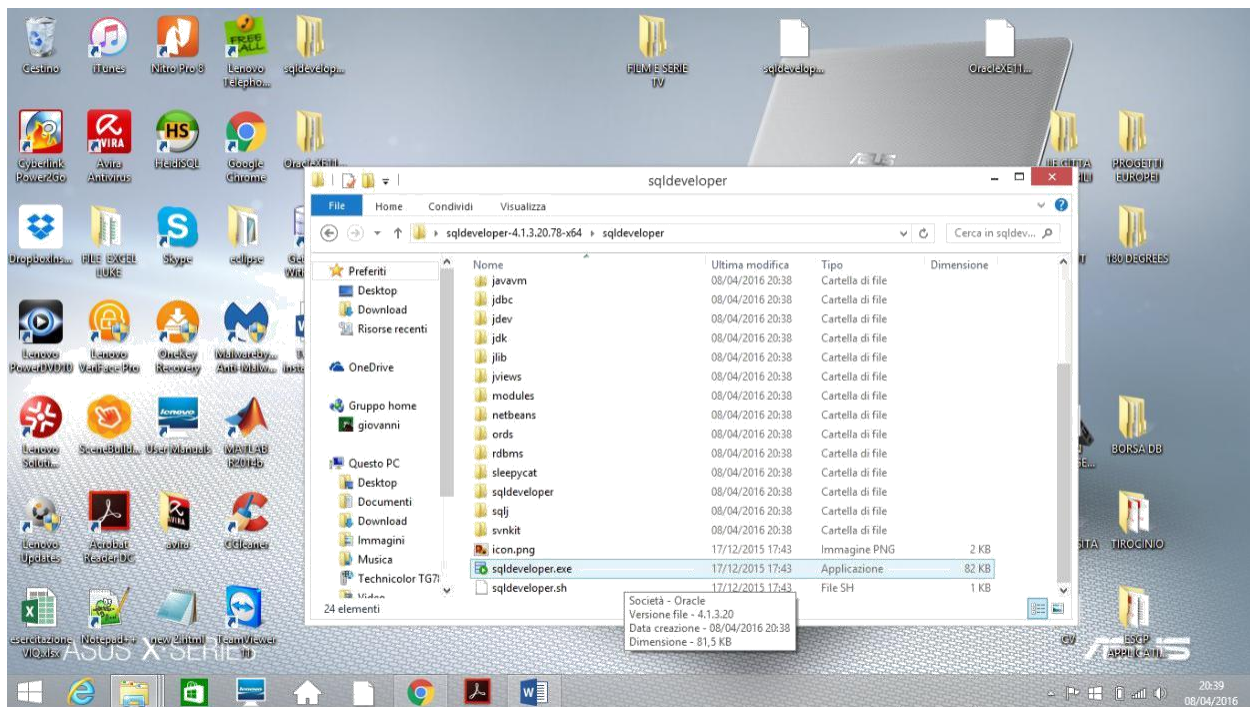
<https://www.oracle.com/database/technologies/appdev/sql-developer.html>  
and click on download.



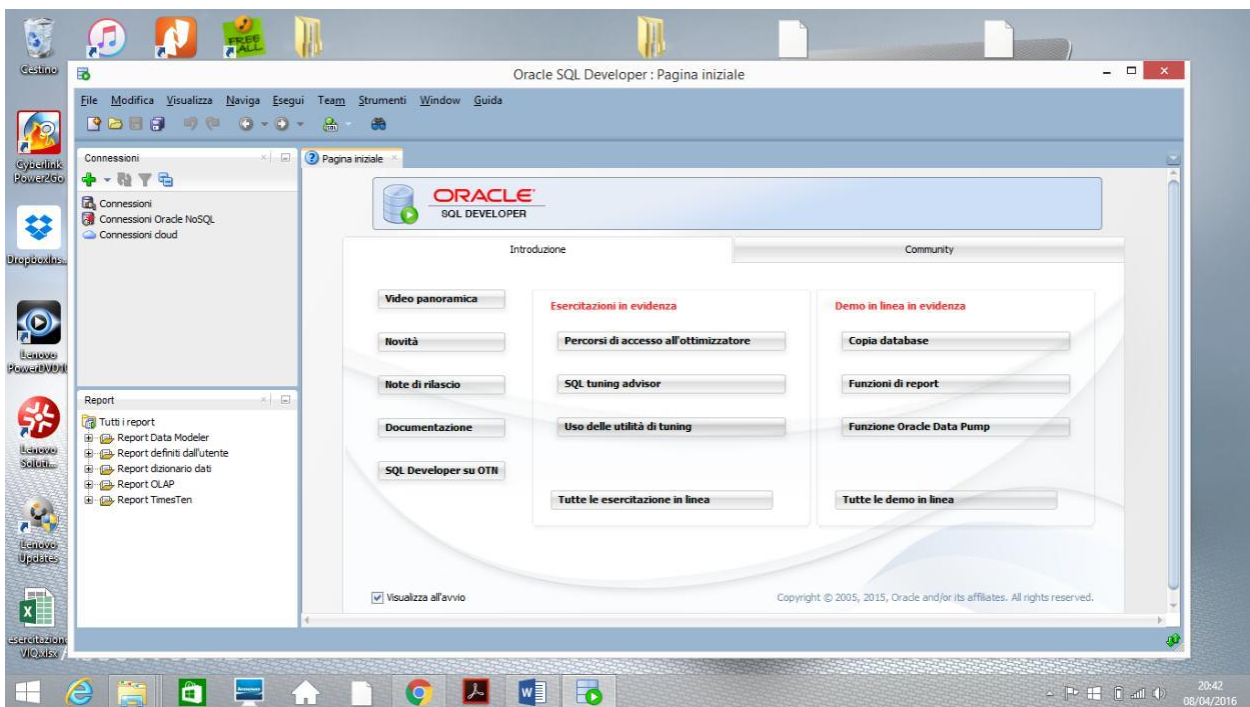
The page in which it is necessary to accept the Oracle licenses again will open. After that, select the SQL Developer version to download (we install the first one proposed for Windows x64)



Once the download of the zip file is completed, the file must be unzipped and it is possible to launch the .exe file, that is sqldeveloper.exe, as highlighted in the image.



The following page will automatically open at the start of SQL Developer.





## CREATION OF AN ORACLE WORKSPACE AND OF A NEW USER

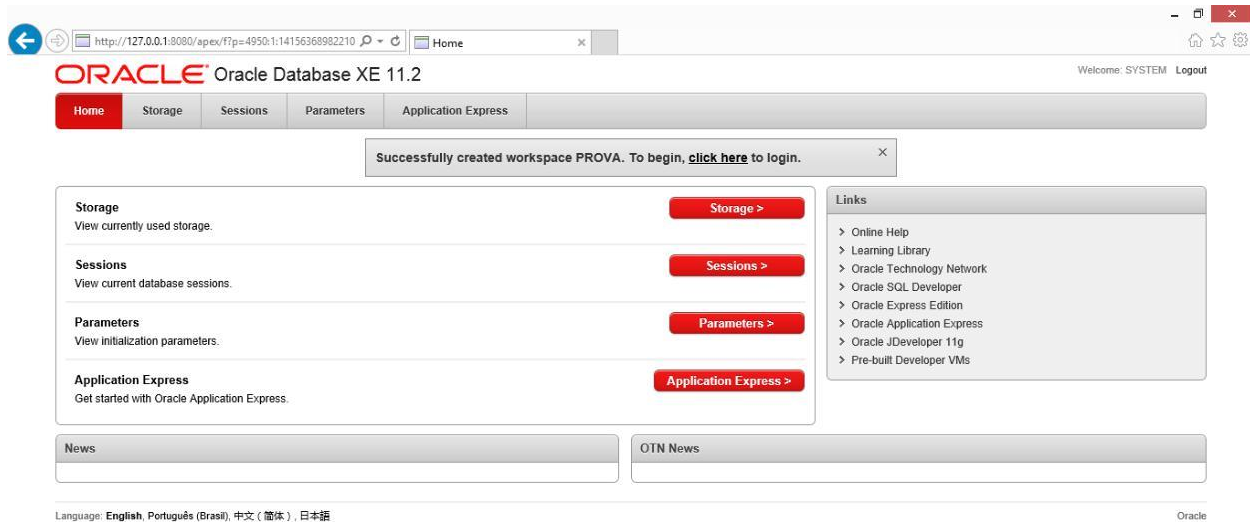
Usually, if you want to, it is possible to create new workspaces and users on Oracle, in case you want to distinguish between different projects and spaces of work.

Let's see the procedure to create a workspace.

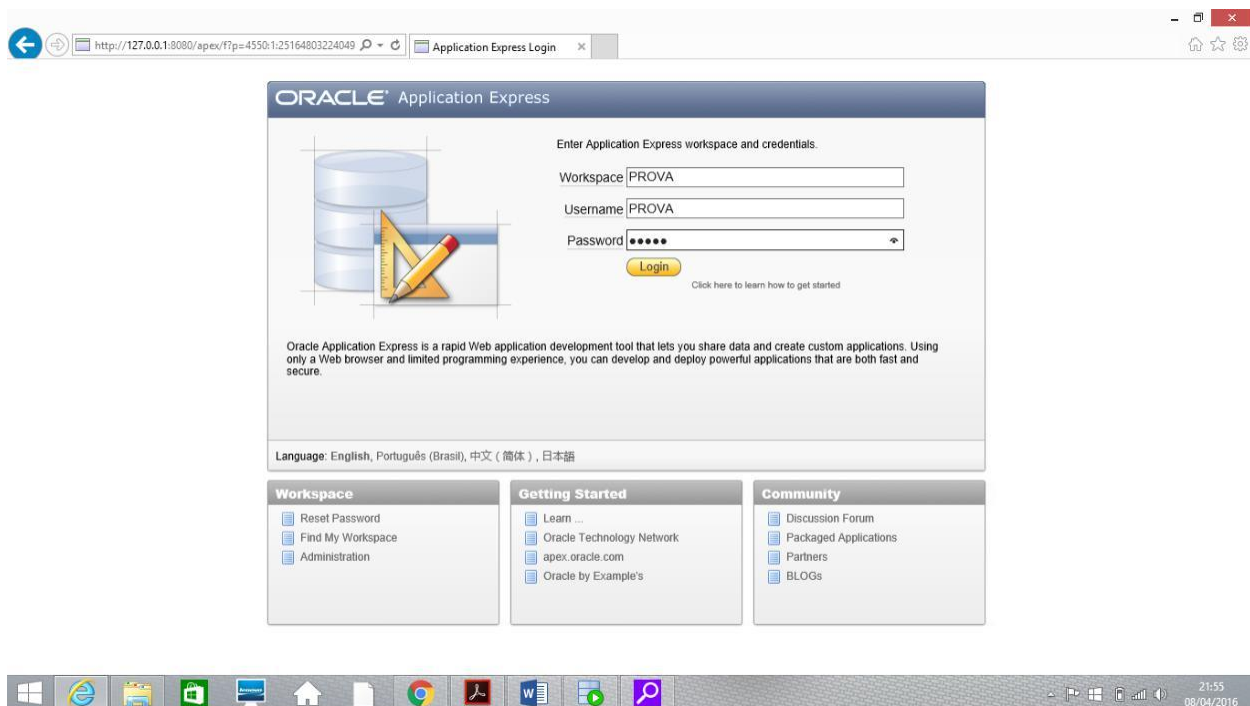
Open the Oracle web interface and click on the option Application Express. You will be asked to login. Use the account SYSTEM and the password configured during the installation phase of the DBMS Oracle (in our case account "SYSTEM" password "admin").

The screenshot shows the Oracle Database XE 11.2 Application Express web interface. The browser address bar shows the URL: <http://127.0.0.1:8080/apex/f?p=4950:7:14156368982210:::>. The page title is "ORACLE Oracle Database XE 11.2". The navigation bar includes links for Home, Storage, Sessions, Parameters, and Application Express (which is highlighted). Below the navigation bar, the "Create Application Express Workspace" form is displayed. The form has a "Database User" section with radio buttons for "Create New" (selected) and "Use Existing". Below this are four input fields: "Database Username", "Application Express Username", "Password", and "Confirm Password". A "Cancel" button and a red "Create Workspace" button are at the top right of the form. To the right of the form is a "Getting Started" section with a link "Already have an account? Login Here". The "Getting Started" section contains text: "To get started with Oracle Application Express, create a workspace. You will need to specify:" followed by a bulleted list: "Database Username - Name of the database user to be created", "Application Express Username - Your login name for the Application Express Workspace", and "Password - Password of both your database user and Application Express user". Below the list, it says: "Once created, you will be able to [login to your Application Express workspace](#) using these credentials". The Oracle logo is at the bottom right of the page. The Windows taskbar is visible at the bottom of the screenshot, showing various application icons and the system clock indicating 21:51 on 08/04/2016.

Create a new Workspace that is called "PROVA" (uppercase) with a new user, with name "PROVA" (uppercase) and password "prova" and then click on the right on create Workspace (red button). A new page will open, as in the following figure, one again it will be the Oracle Home page.



As you can see on the top part of the page, there is a button named **click here** which you click on in order to access to the Workspace just created. By clicking on it, you will open the access page to the Oracle Workspace (you can log in to this page by clicking again on Application Express and this time login on the right on the Workspace already created).



Log in and we are inside the Workspace, in which we can work.

**ORACLE Application Express**

Welcome PROVA (Logout)

Home Application Builder SQL Workshop Team Development Administration

Home > Administration

**Manage Workspace PROVA** [Change My Password](#)

Manage Service Manage Users and Groups Monitor Activity Dashboards

Service	
Workspace Name	PROVA
Applications	1
Application Pages	23
Web sheets	0
SQL Scripts	0
Schemas	1
Open Requests	0

Users	
Users	1
Workspace Administrators	1
Application Developers	1
Worksheet Developers	0
End Users	0
Created Last 24 Hours	1
Created Last Week	1

Activity	
Reporting Timeframe	3 hours
Page Events	49
Median Page Time	0.14
Distinct Applications	3
Distinct Users	1
Distinct Sessions	2
Errors	3

**Tasks**

- About Application Express
- Change Password
- Create User
- Create User Groups
- Create Multiple Users
- Delete Multiple Users
- Manage Interactive Report
- Settings
- Manage Export Repository
- Worksheet Database Objects

**Dashboards**

- Workspace
- Users
- Activity
- Developer Activity

http://127.0.0.1:8080/apex/f?p=4350:52:2400063312875240::NO-52\_EDIT\_USER\_PRIVS::

22:10 08/04/2016

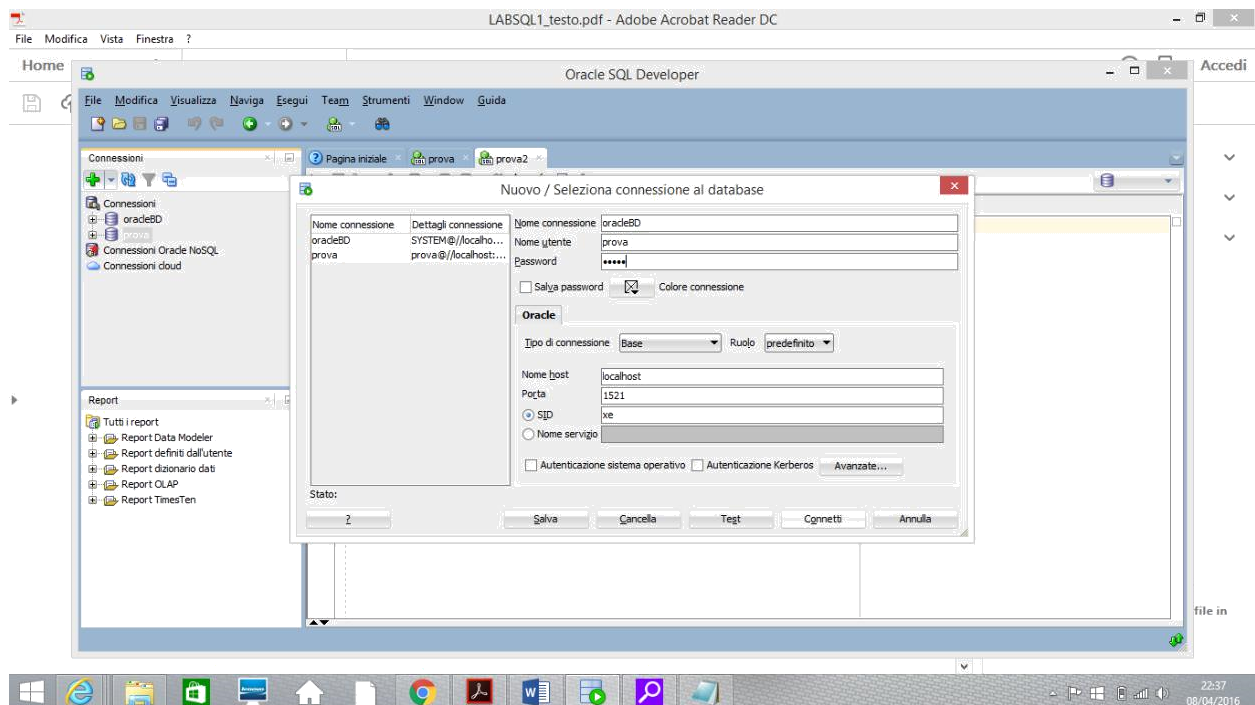
## CONNECTION OF SQL DEVELOPER TO ORACLE

Let's get back to SQL Developer to connect to Oracle using the new "PROVA" account just created on Oracle so that we can access to the Workspace "PROVA" where we want to work (for example, creating new database, doing queries etc.).

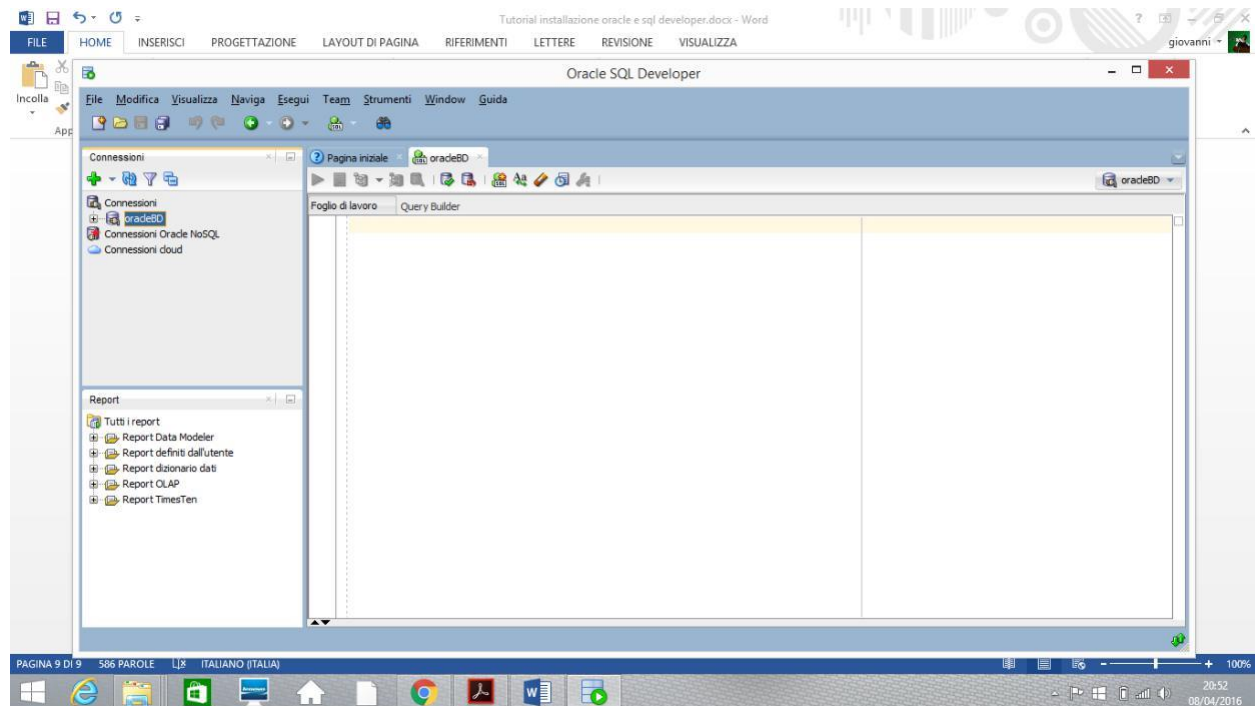
Execute SQL Developer and then click on the green cross in left right corner and select the option new Connection. We are connecting SQL Developer to the DBMS Oracle downloaded before. Fill in the field "connection name", "user" and "password", as reported in the figure. In this specific case we wrote as connection name "oracleBD" (you can choose whatever name). Instead, as user, we used the username "PROVA" (uppercase) with password "prova" (the credential of the user we created previously during the creation of the workspace "PROVA"). In order to avoid problems, write the new username only in uppercase letters.

**N.B. we could have connected using the user SYSTEM with password "admin".**





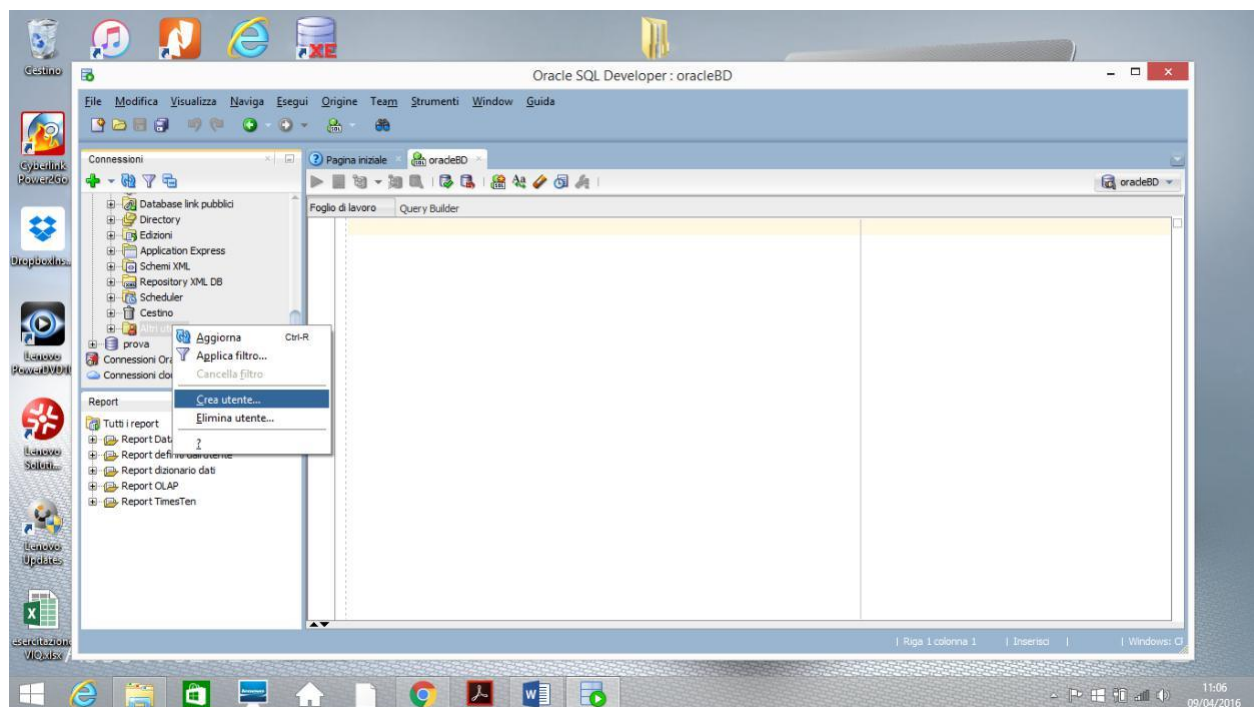
Click on connect and the connection with name “oracleBD” to the workspace “PROVA” of Oracle will be established, as it is possible to see highlighted in the list of connections on the left.



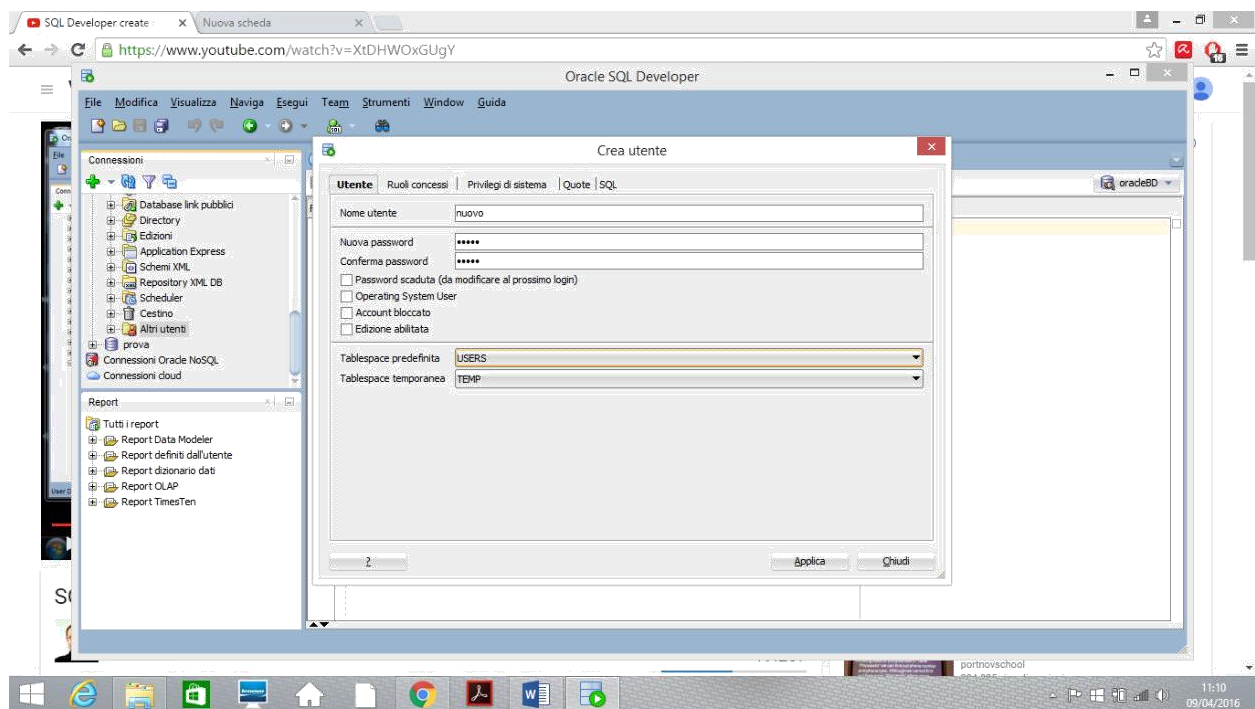
## CREATION NEW USER ON SQL DEVELOPER

Usually, the user SYSTEM is never used to establish a connection to SQL Developer. Instead, a new user that has been granted all administration privileges as SYSTEM is used.

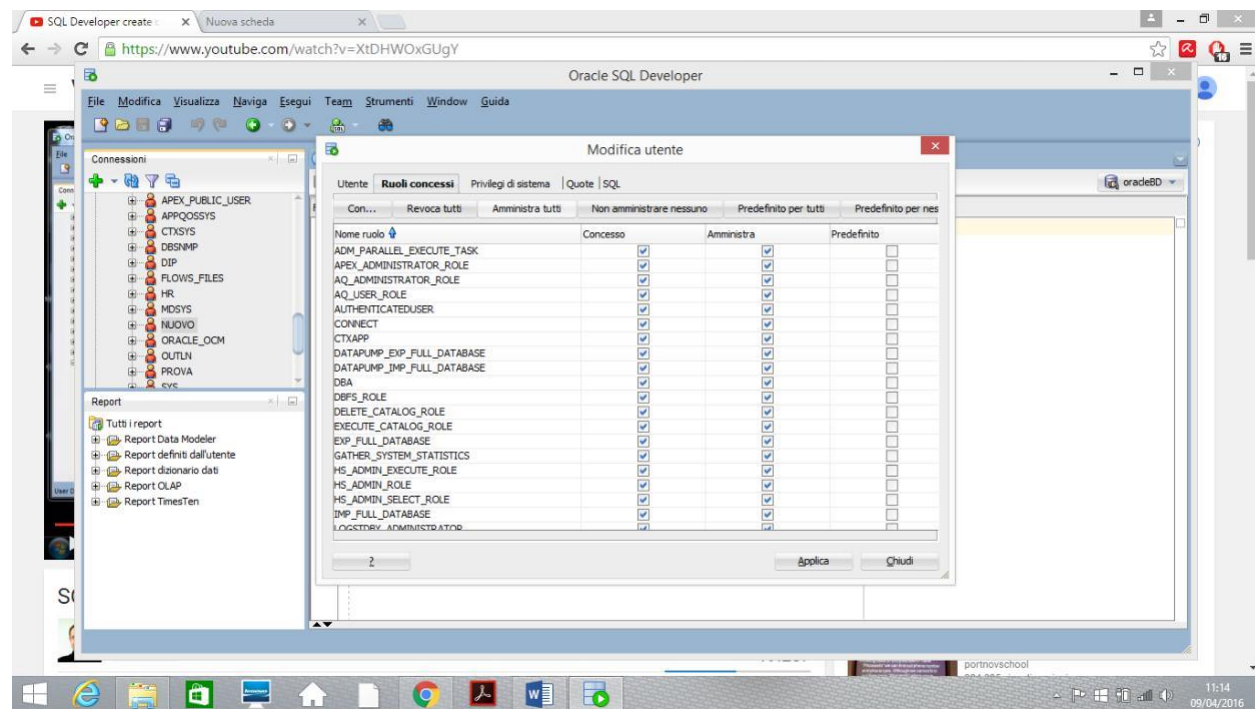
Let's see now how to create this new user. It is necessary to open SQL Developer and then a connection to the DBMS Oracle (we have just opened the connection oracleBD). After the opening of the connection (with user SYSTEM), click on the connection itself and a menu with table, views etc. will open. Scroll the menu till the voice "Other users". Once it has been reached, click on it with the right button of the mouse and click on "create new user", as shown in the figure below.



A page like the figure below will open, in which you can insert the username and the password (we wrote 'NEW'(uppercase)) and define the temporary default tablespace (select [USERS] and [TEMP] as shown in the following figure). ***In order to avoid problems, write the new username only in uppercase letters.***

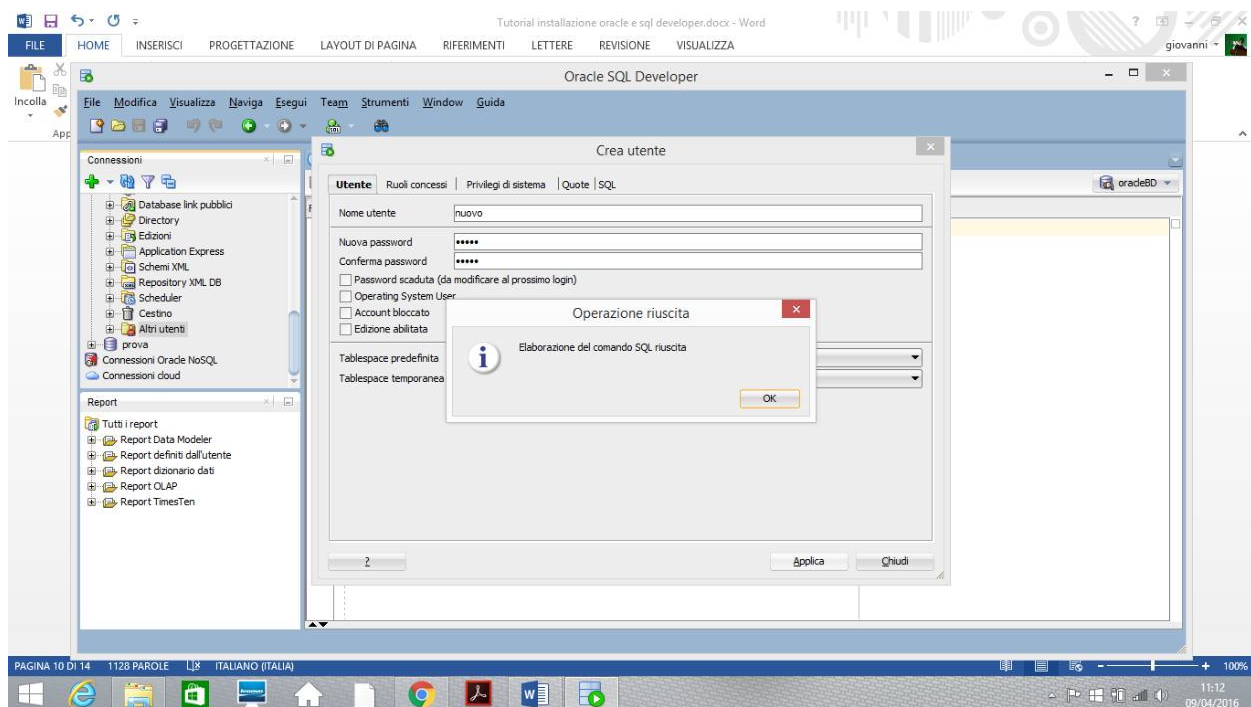


Select the tab on the top right “Granted roles”. A new page will open, as shown in the following figure. Click on “Administer all”, granting all privileges to the new user.

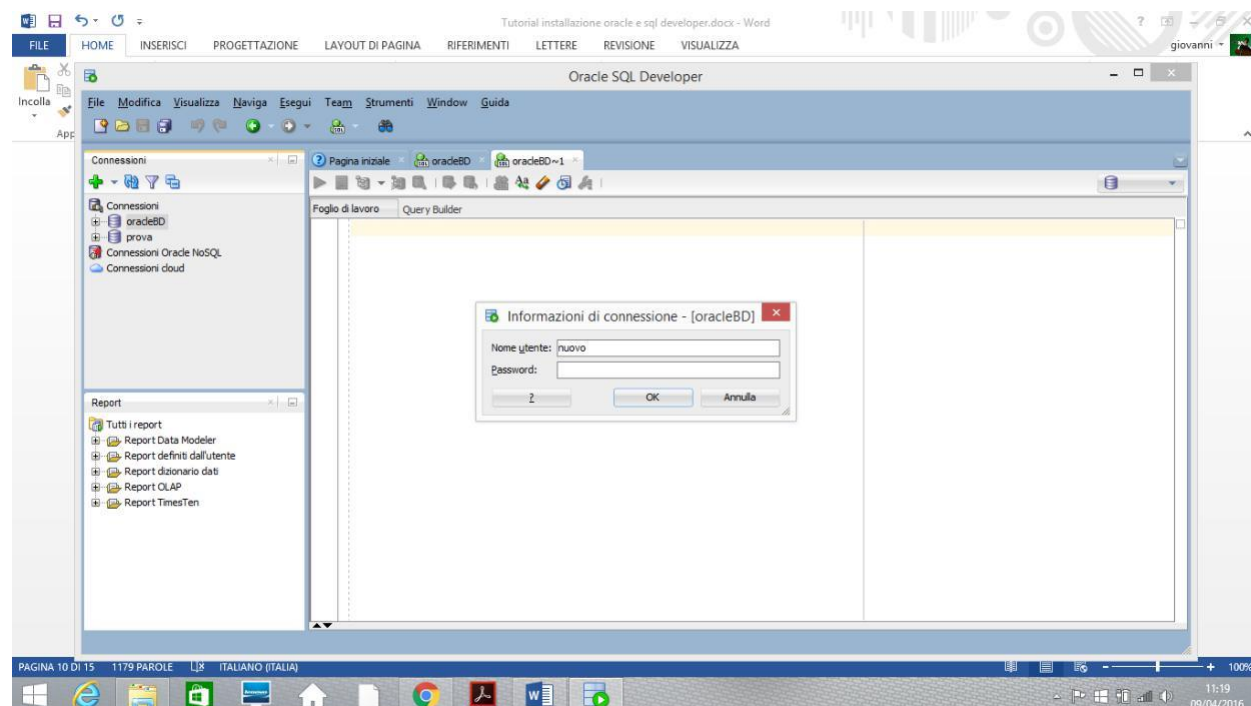




Click on apply, on the bottom part and a message will appear. Click on ok.



The new user “NEW” has been created and appears in the list of users. From now on, in order to establish a connection with oracleBD, it will not be necessary to use the SYSTEM user. Instead, it is possible to set the new user as default one. In order to do it, right-click with your mouse on “connection” and “connect”. After doing this, a new tab will open where user password is required (use this procedure as you should never work with user SYSTEM).



At this point, you can import the file db.sql (that is uploaded on course webpage). It contains the script for the creation and population of the database in Oracle. In this way, you will have a database equal to the one used during the exercices at the laboratory. In order to create the database, after opening the file db.sql, run the SQL script clicking the specific button associated to the command "run script".