

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>

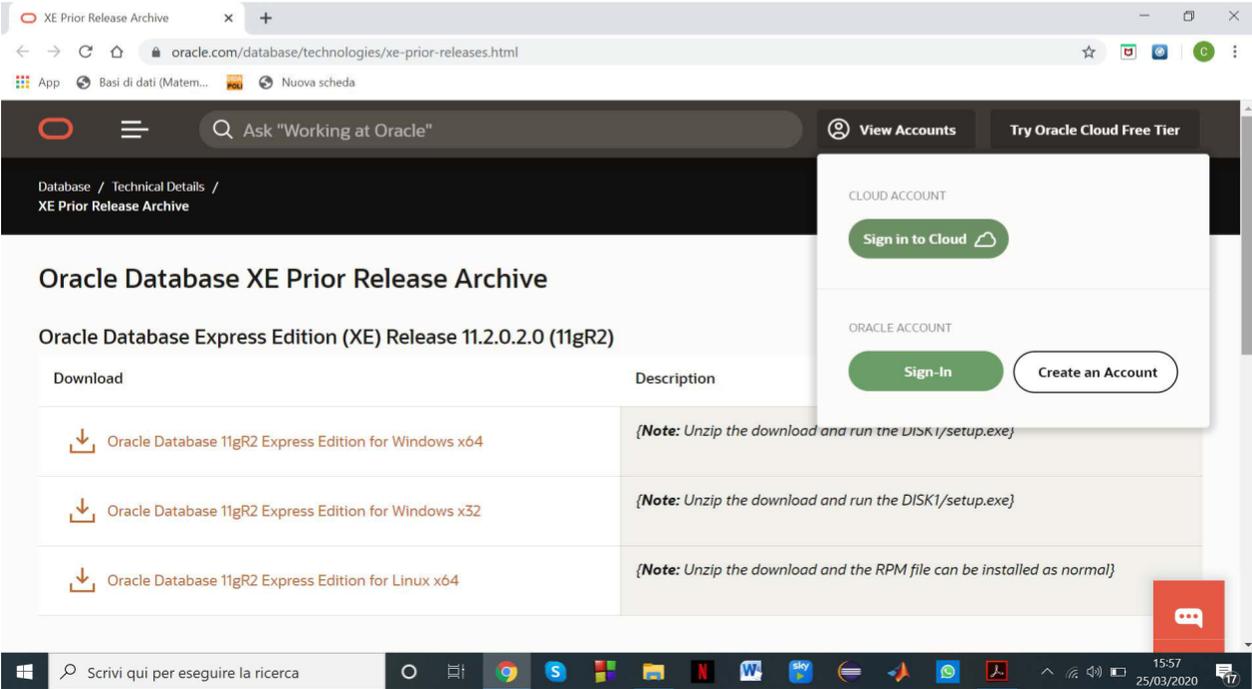
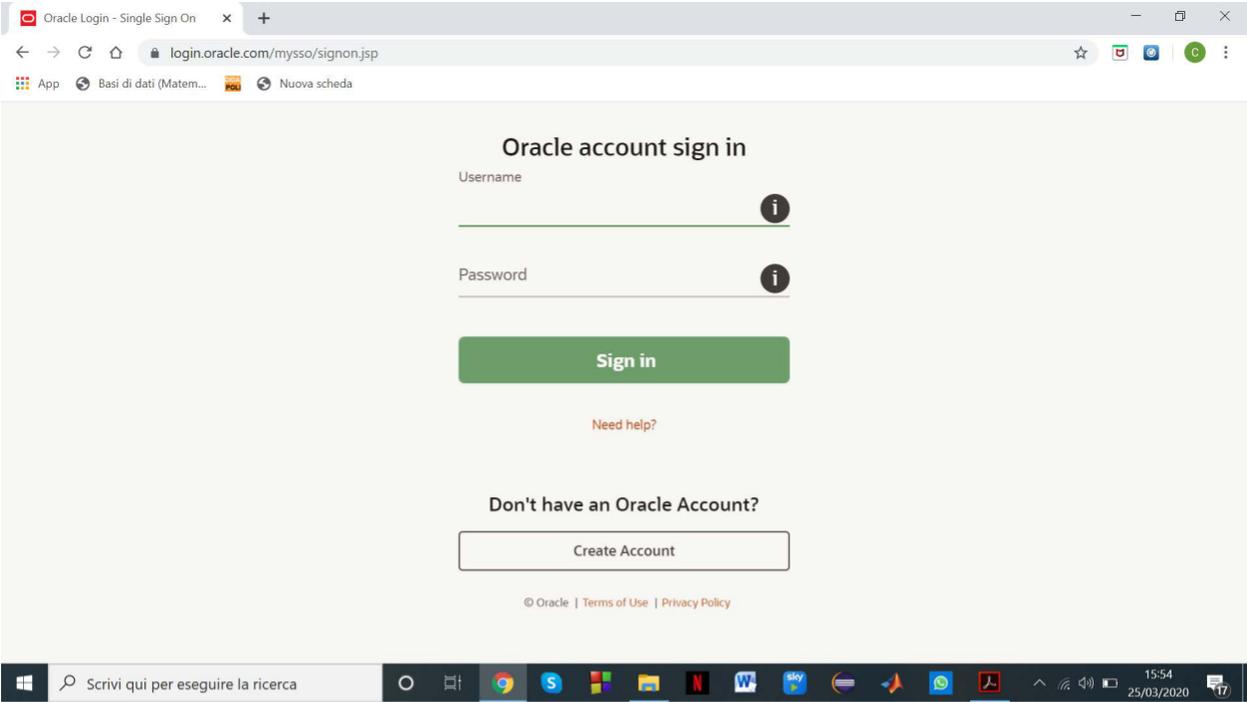
Once the page is loaded select the version 11g Express Edition. Even though this version is not the most recent, we advise you use it because it is easier to install, as well as lighter. Furthermore, the same version of the software is installed on the computers in the LABINF.

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 screenshot displays the Oracle Database XE Prior Release Archive website. The page title is "Oracle Database XE Prior Release Archive". The main content area shows the "Oracle Database Express Edition (XE)" section with a "Download" heading. Three download options are listed: "Oracle Database 11gR2 Express Edition", "Oracle Database 11gR2 Express Edition for Windows x32", and "Oracle Database 11gR2 Express Edition for Linux x64". A modal dialog box is overlaid on the page, titled "You must accept the Oracle License Agreement to download this software." It contains a green checkmark and the text "I reviewed and accept the Oracle License Agreement". A green button labeled "Download OracleXE12_Win64.zip" is visible. A note at the bottom of the dialog box states: "[Note: Unzip the download and the RPM file can be installed as normal]". The website header includes a search bar with the text "Ask \"How can I create an agile supply chain?\"", a "View Accounts" button, and a "Try Oracle Cloud Free Tier" button. The website footer includes a "Start chat" button and a "Contact or call" button. The Windows taskbar is visible at the bottom of the screenshot, showing the search bar with the text "Scrivi qui per eseguire la ricerca" and various application icons.

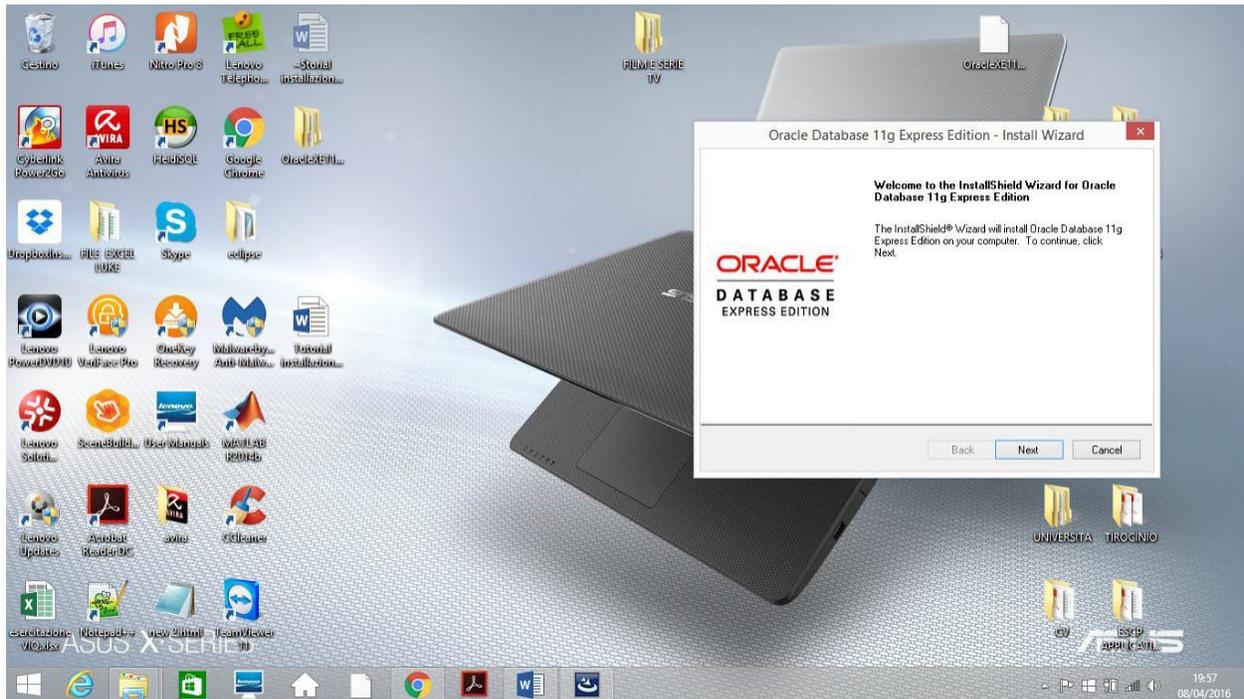
The start of the download requires the creation of a free Oracle account, as you can see in the figure below, an account can be created by clicking on the button "Create account". It is advised to create an account using the university e-mail. After, go back to the page in the figure below and sign in.

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.

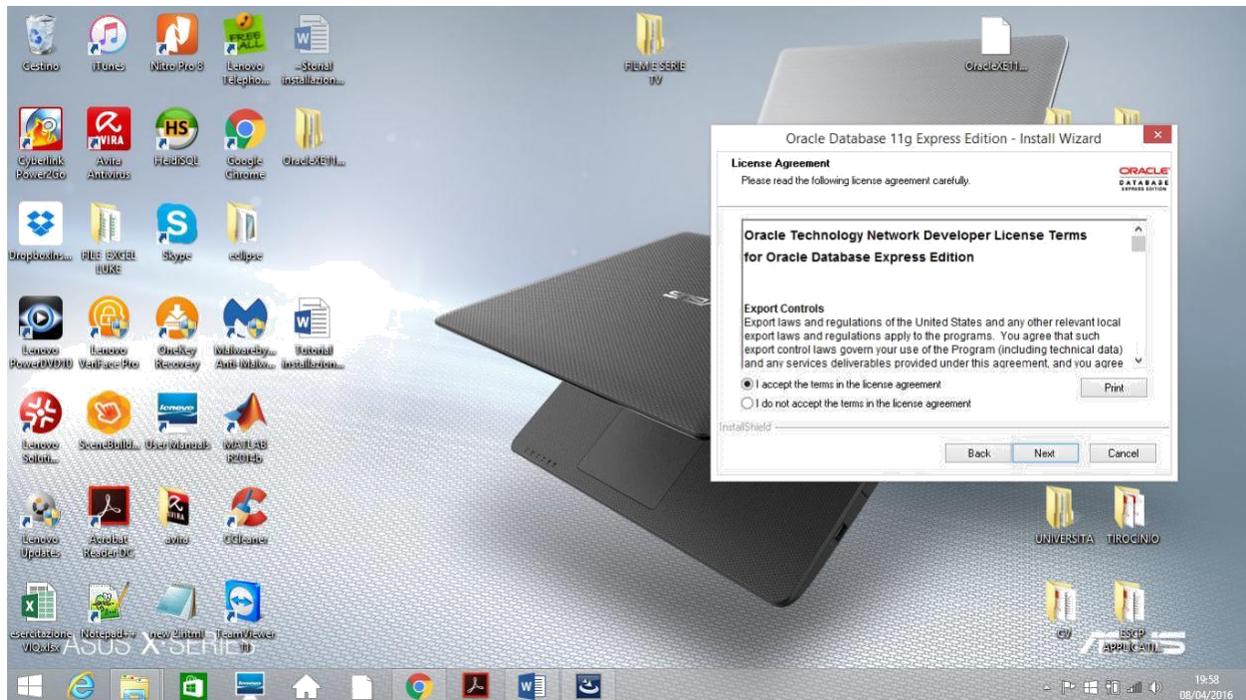


Now that you are signed up you can download the program. Simply click on the link associated with the version of Oracle database Express Edition 11g for Windows x64 and the download will start.

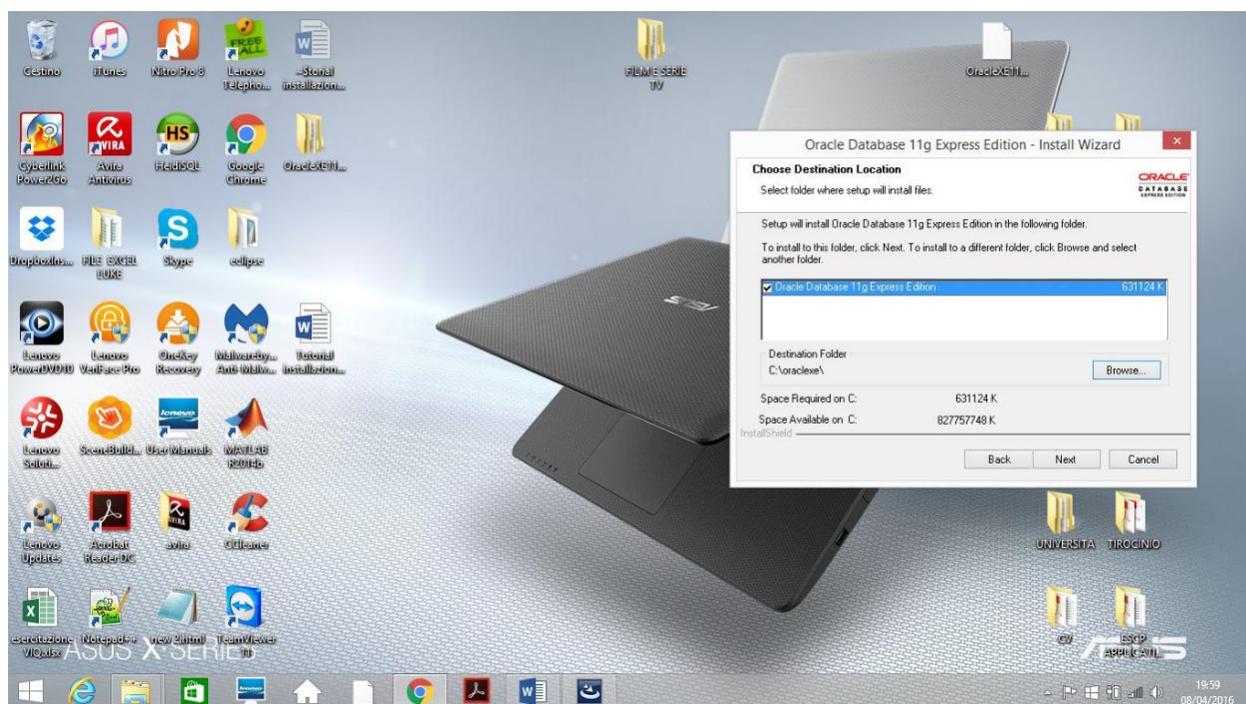
Once downloaded, unzip the zip file. On the inside there is a .exe file, which is setup.exe. After a first loading, the installation procedure page will open.



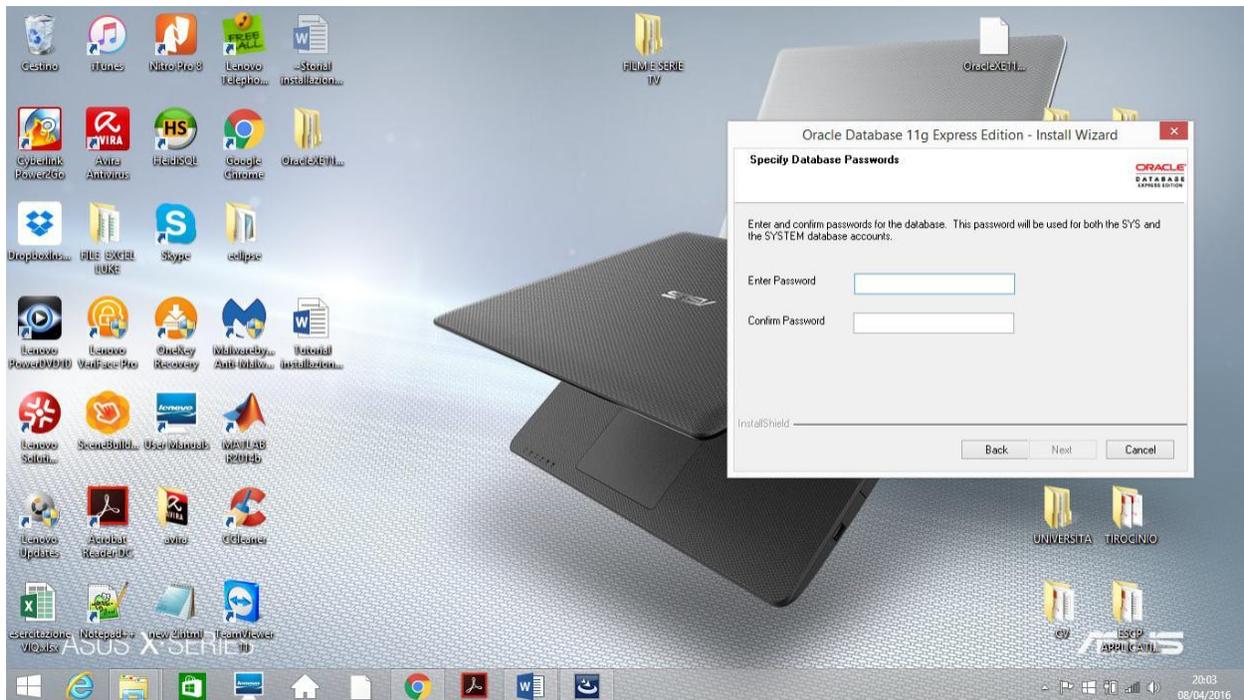
Click "next", and then accept the licensing term and click "next" again.



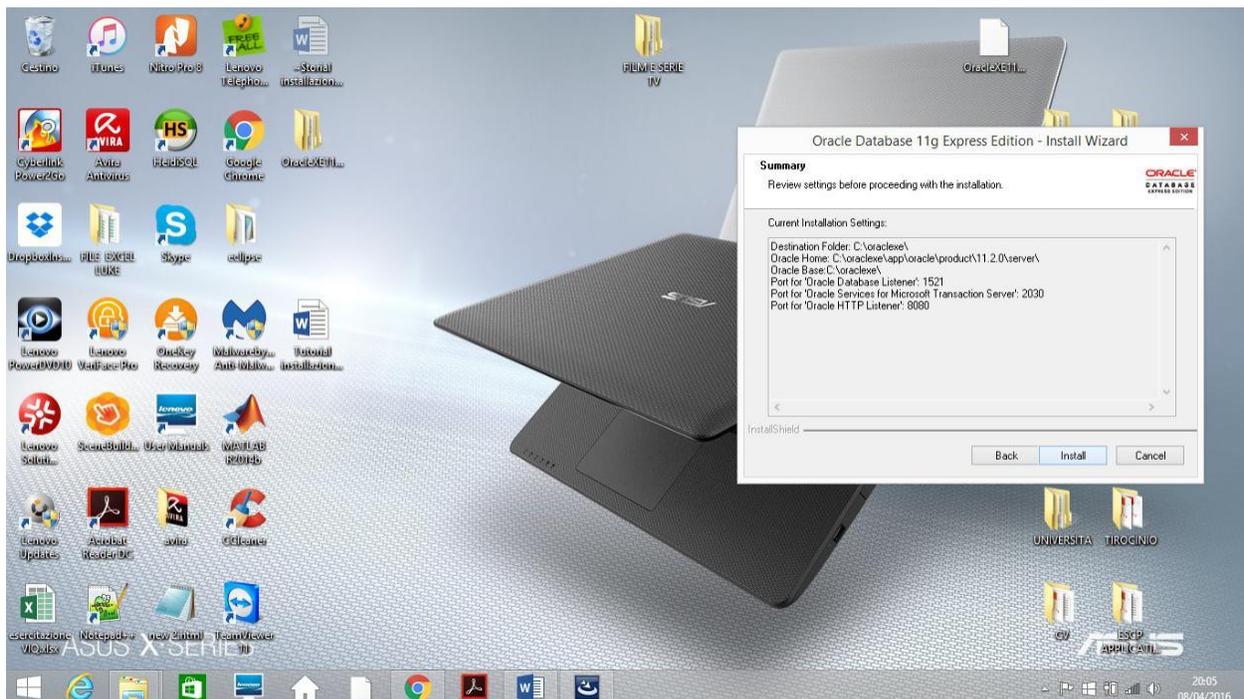
Select the folder of your pc in which you want to install the application and then click on next (we advise to leave the installation folder as suggested by default)



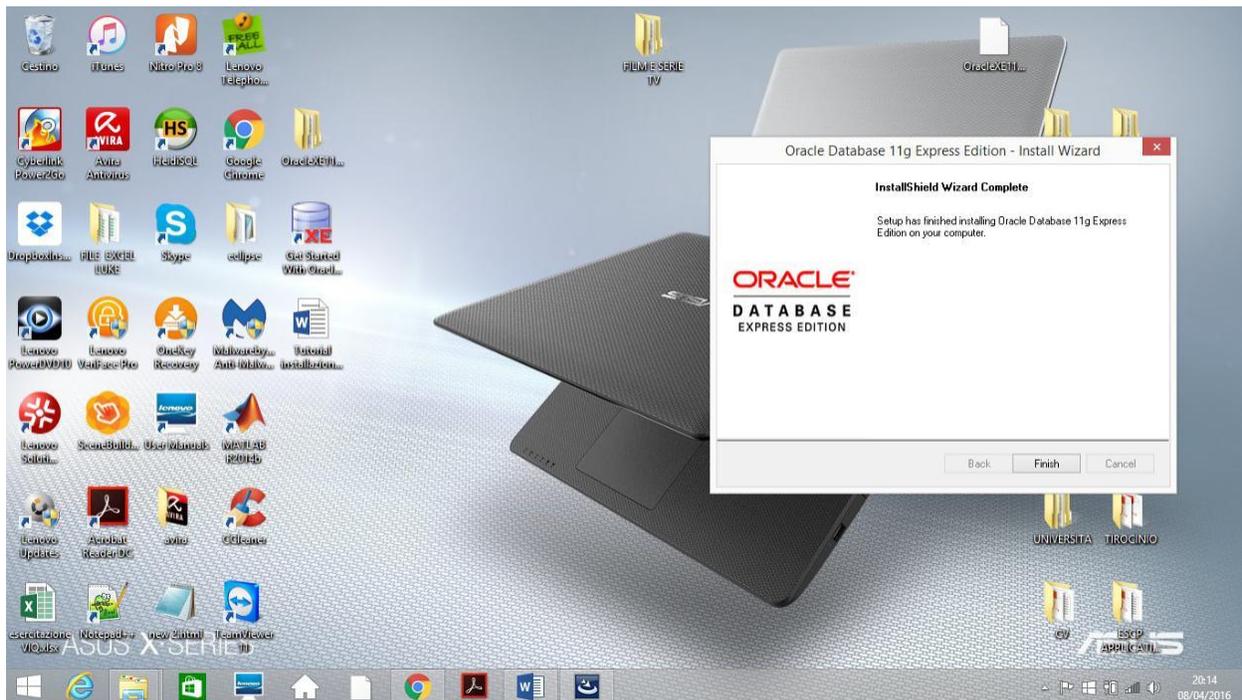
Now the installation procedure will ask for a password that will be used to login in the administration Account of Oracle, that is SYS and SYSTEM (we have set the following password: admin).



The application can now be installed by clicking on install.



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



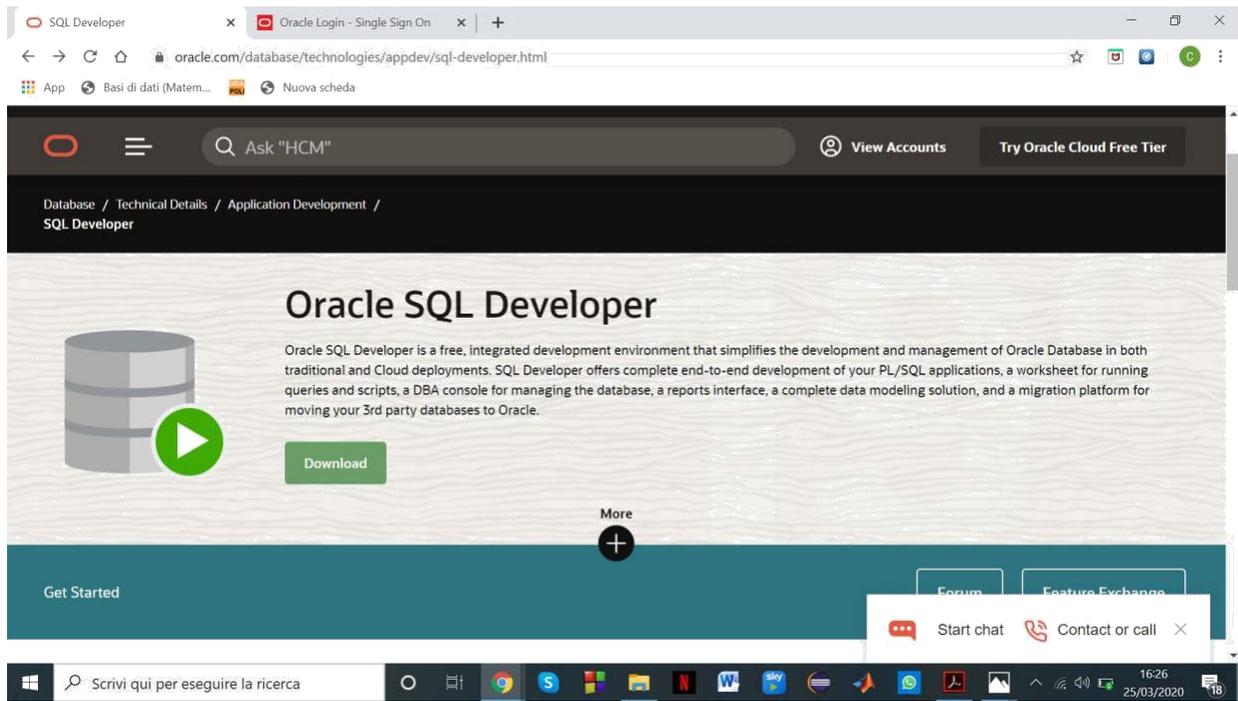
Please note: in order to open Oracle’s web interface, click on the icon “Get Started with Oracle Databases 11g Express Edition” that has been created on the desktop. The icon must be opened with the browser, but sometime some errors may occur. In this case, try to open in with IE or Firefox. Furthermore, 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.

INSTALLATION ORACLE SQL DEVELOPER

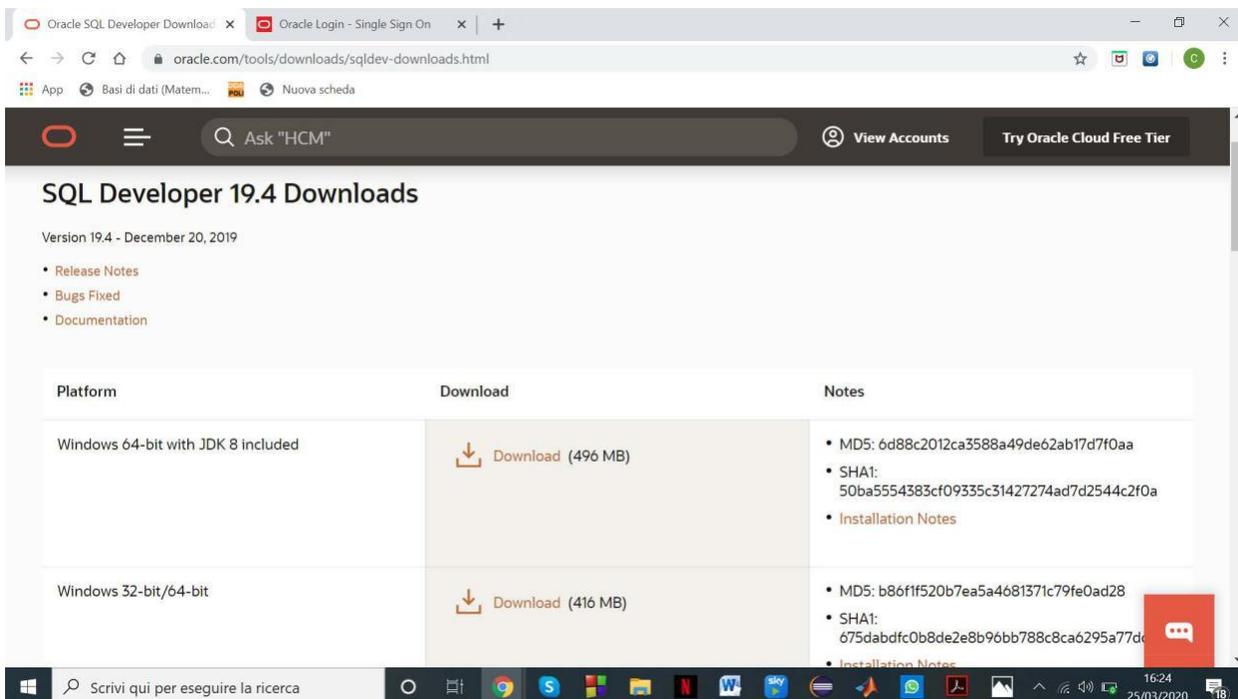
Now install Oracle SQL Developer in order to interact with the databases stored inside the DBMS Oracle.

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

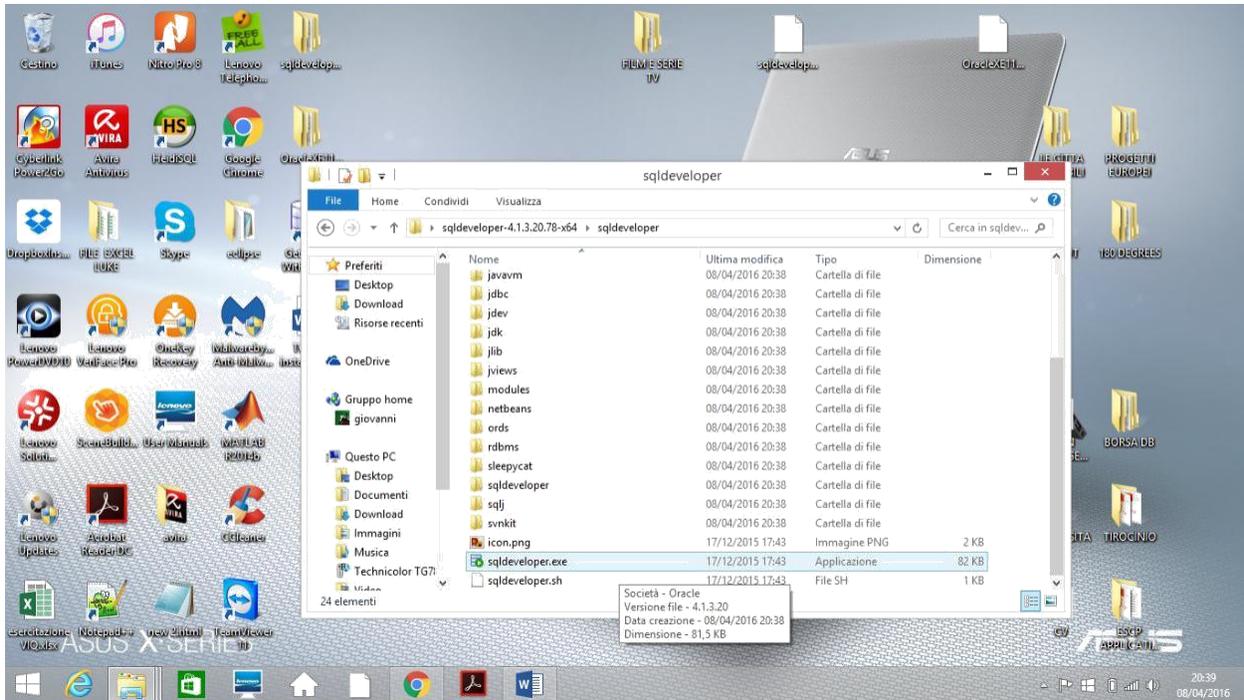
<https://www.oracle.com/database/technologies/appdev/sql-developer.html>
and click on download.



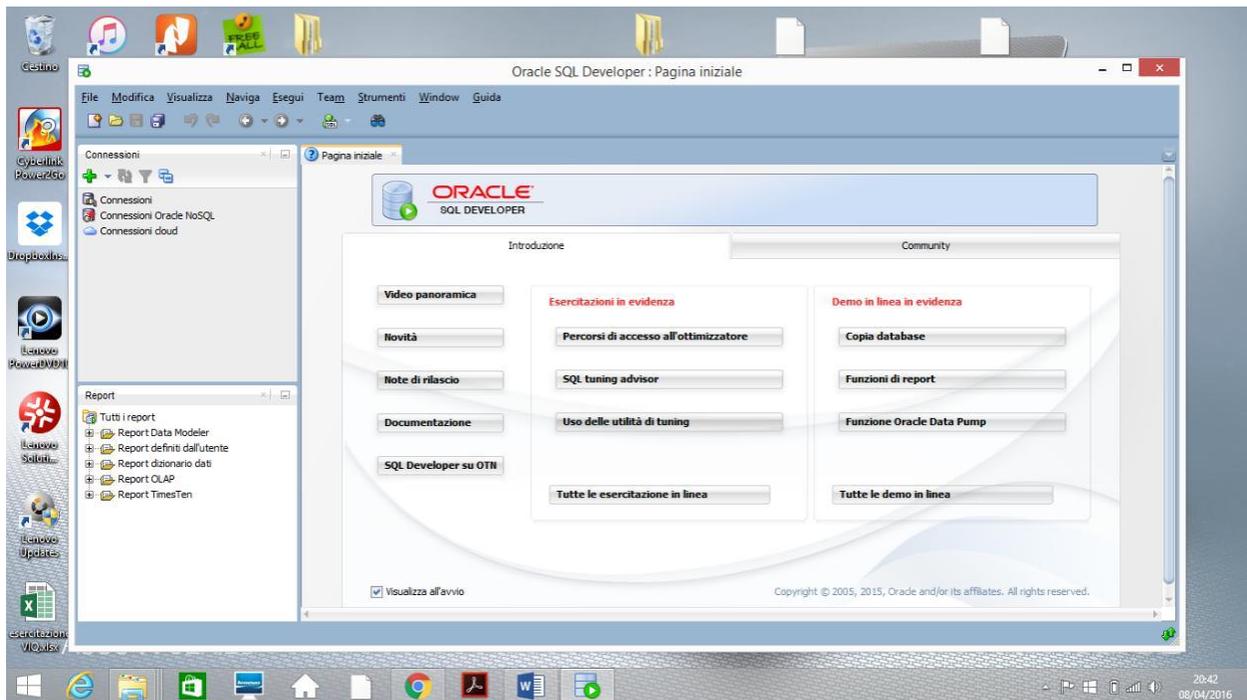
The page in which it is necessary to accept the Oracle licenses again will open. After that, select the SQL Developer version to download (we install the first one proposed for Windows x64)



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.

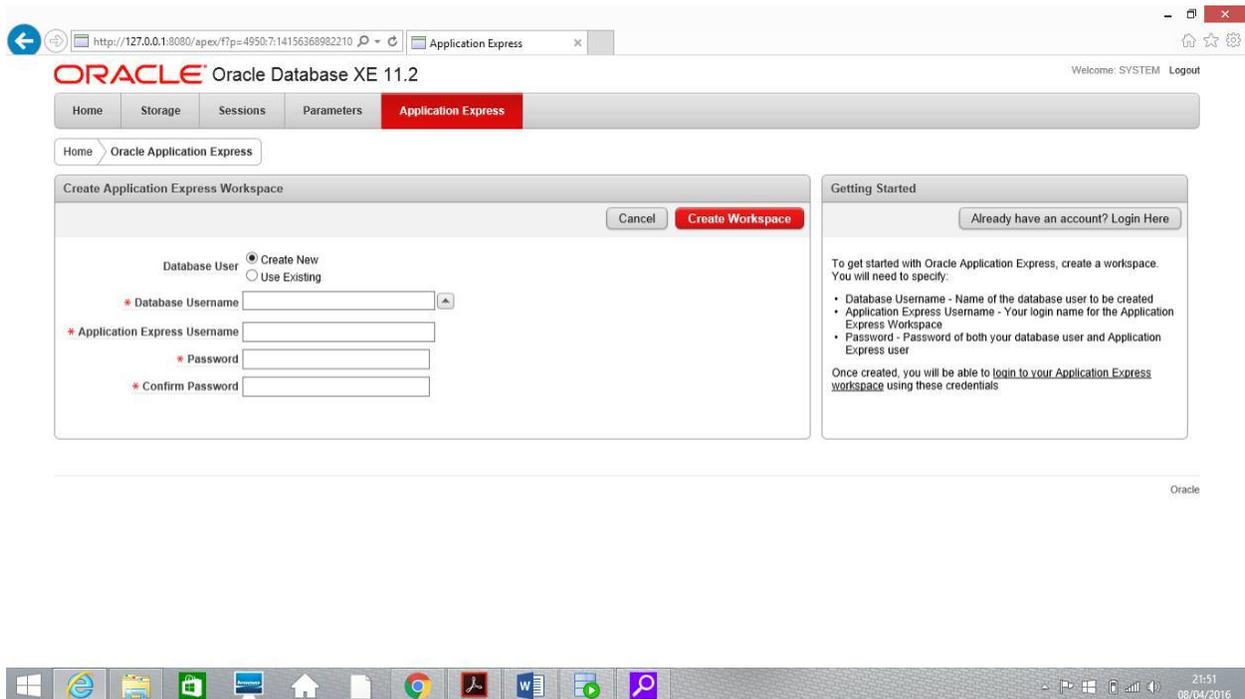


CREATION OF AN ORACLE WORKSPACE AND OF A NEW USER

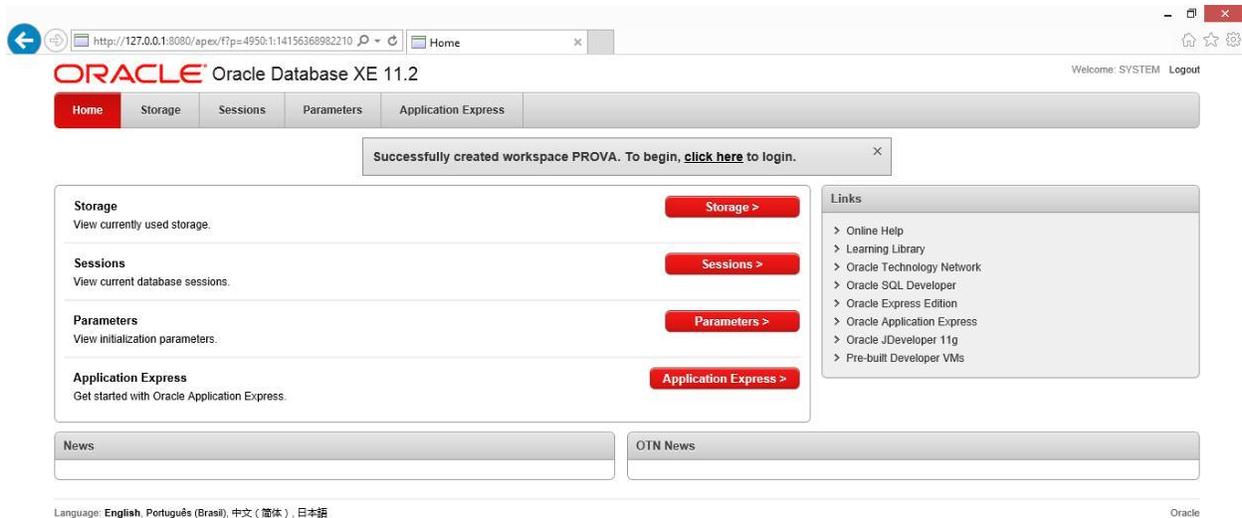
Usually, if you want to, it is possible to create new workspaces and users on Oracle, in case you want to distinguish between different projects and spaces of work.

Let's see the procedure to create a workspace.

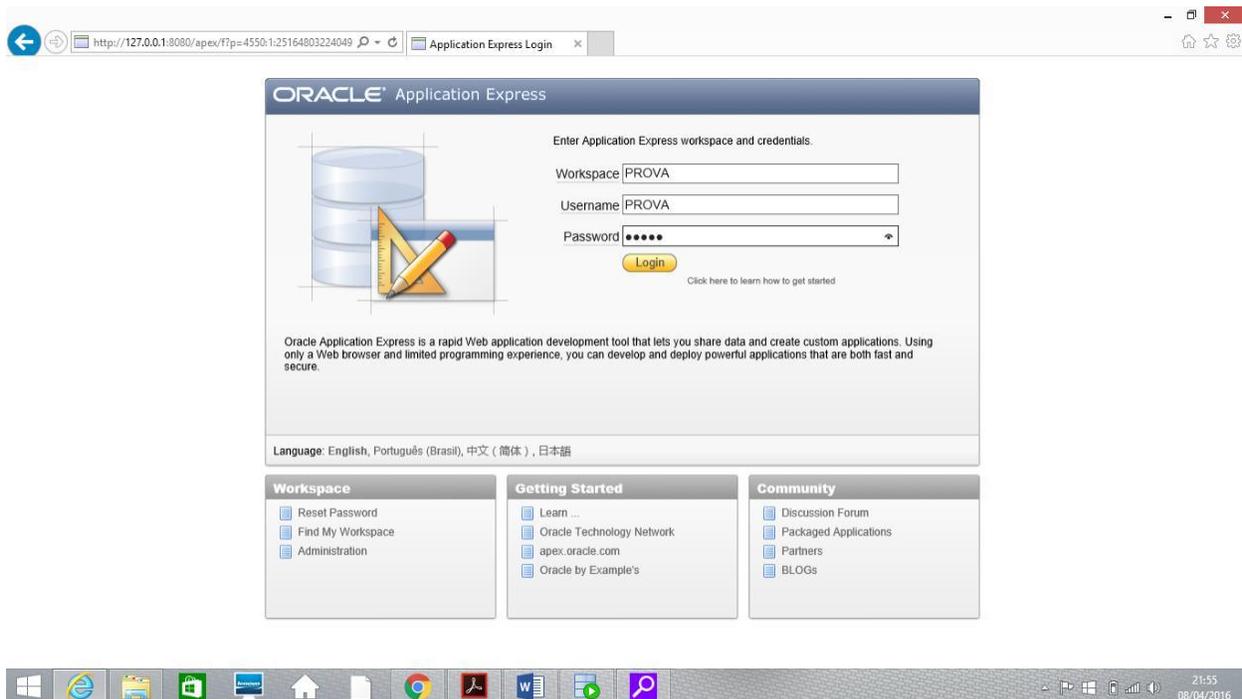
Open the Oracle web interface and click on the option Application Express. You will be asked to login. Use the account SYSTEM and the password configured during the installation phase of the DBMS Oracle (in our case account "SYSTEM" password "admin").



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.

Service

Service	Count
Workspace Name	PROVA
Applications	1
Application Pages	23
Worksheets	0
SQL Scripts	0
Schemas	1
Open Requests	0

Users

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

Activity

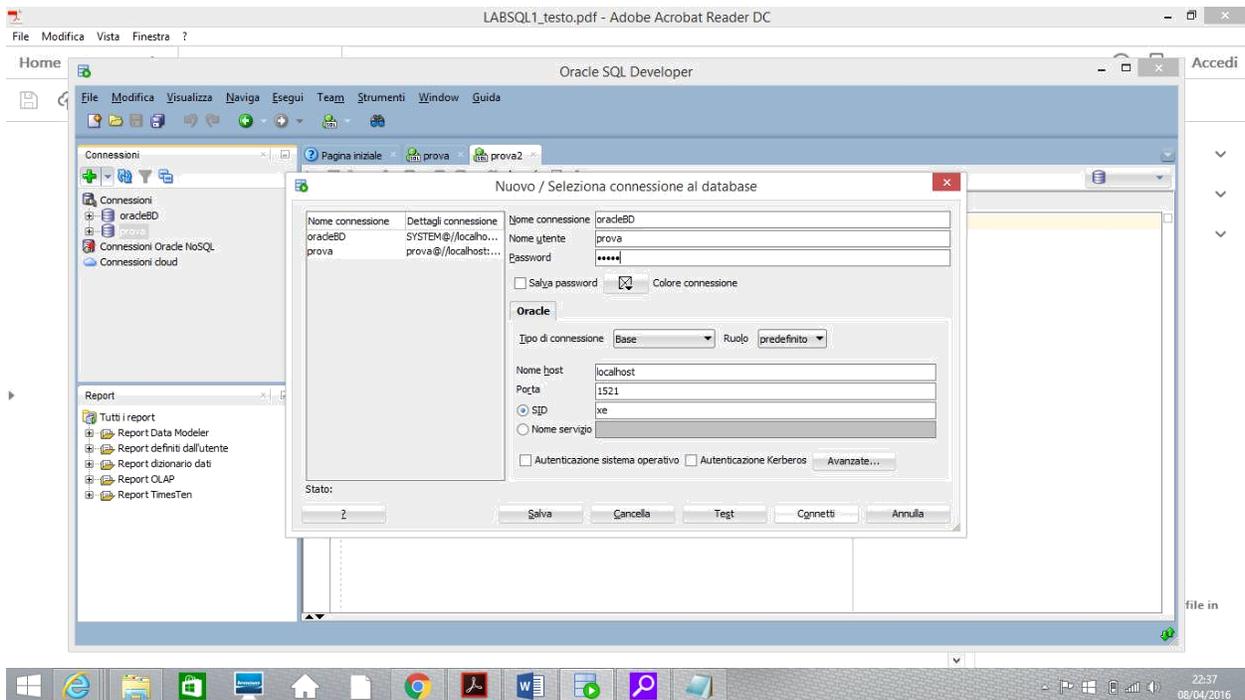
Activity	Count
Reporting Timeframe	3 hours
Page Events	49
Median Page Time	0.14
Distinct Applications	3
Distinct Users	1
Distinct Sessions	2
Errors	3

CONNECTION OF SQL DEVELOPER TO ORACLE

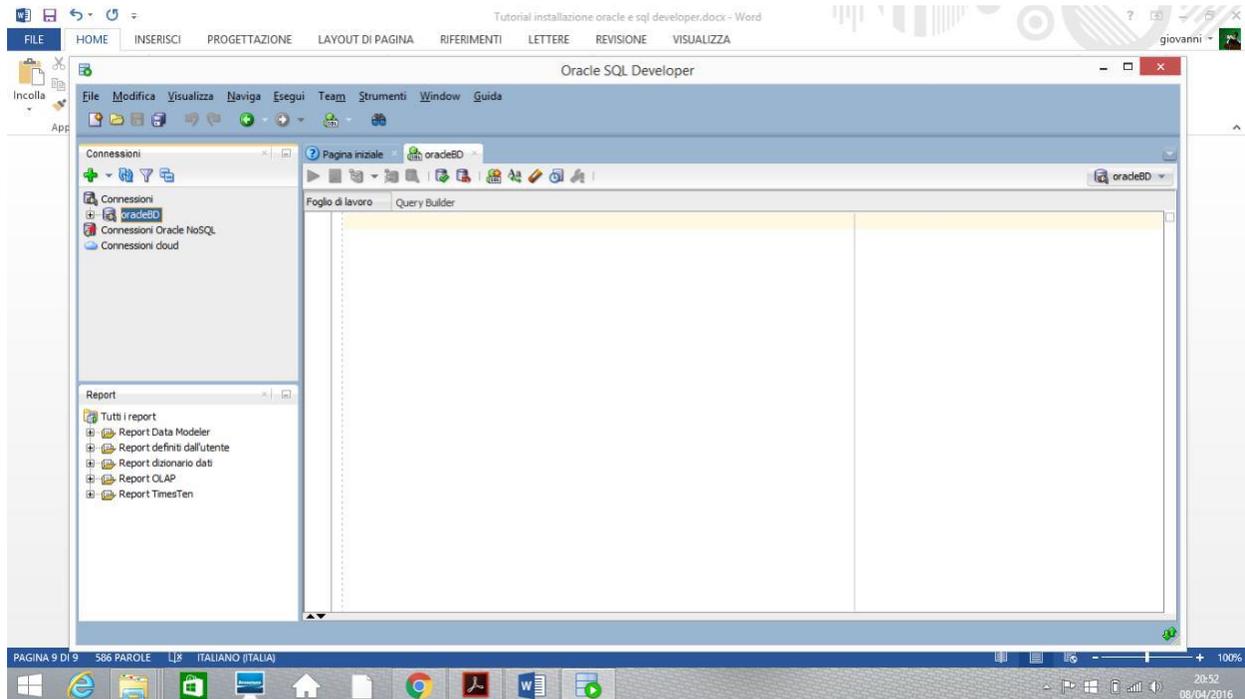
Let's get back to SQL Developer to connect to Oracle using the new "PROVA" account just created on Oracle so that we can access to the Workspace "PROVA" where we want to work (for example, creating new database, doing queries etc.).

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".



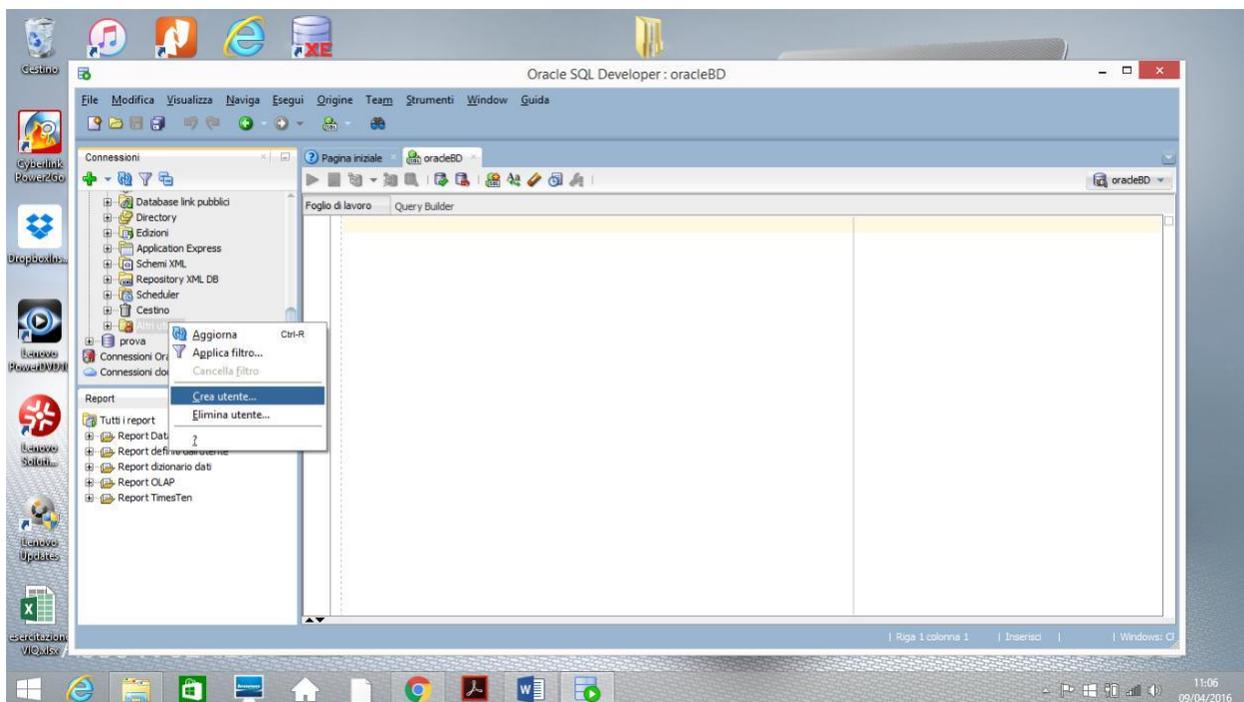
Click on connect and the connection with name “oracleBD” to the workspace “PROVA” of Oracle will be established, as it is possible to see highlighted in the list of connections on the left.



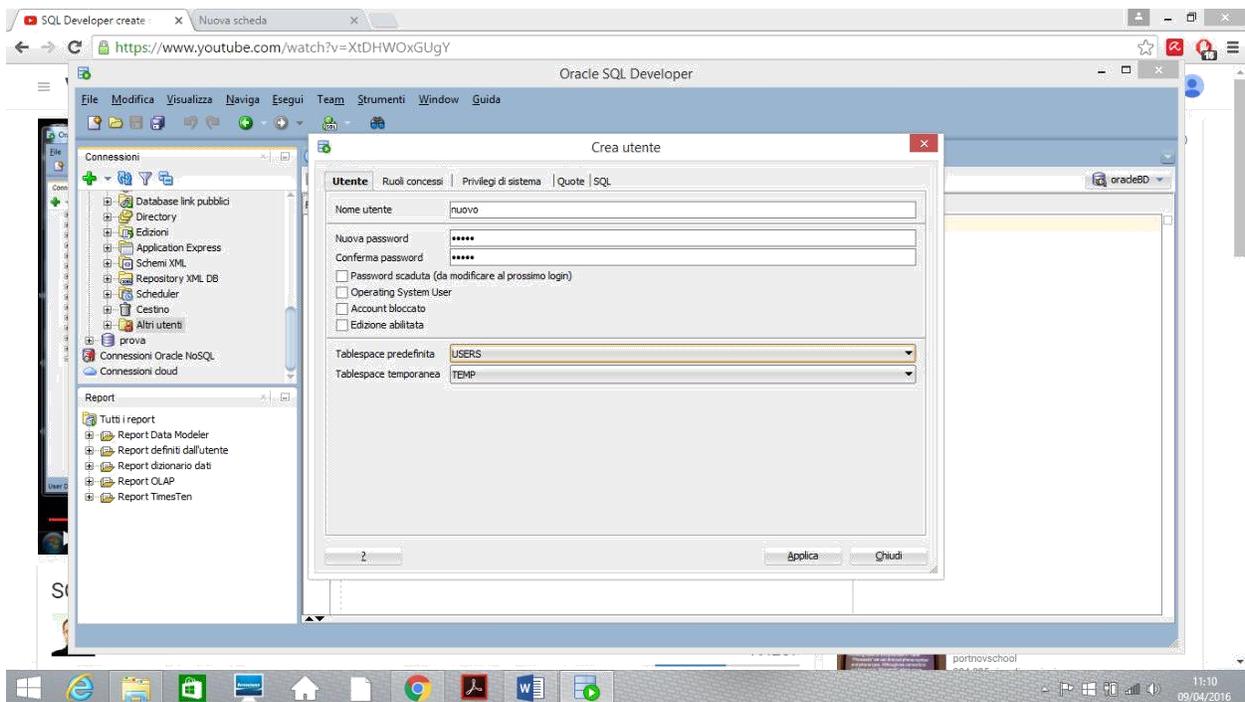
CREATION NEW USER ON SQL DEVELOPER

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.

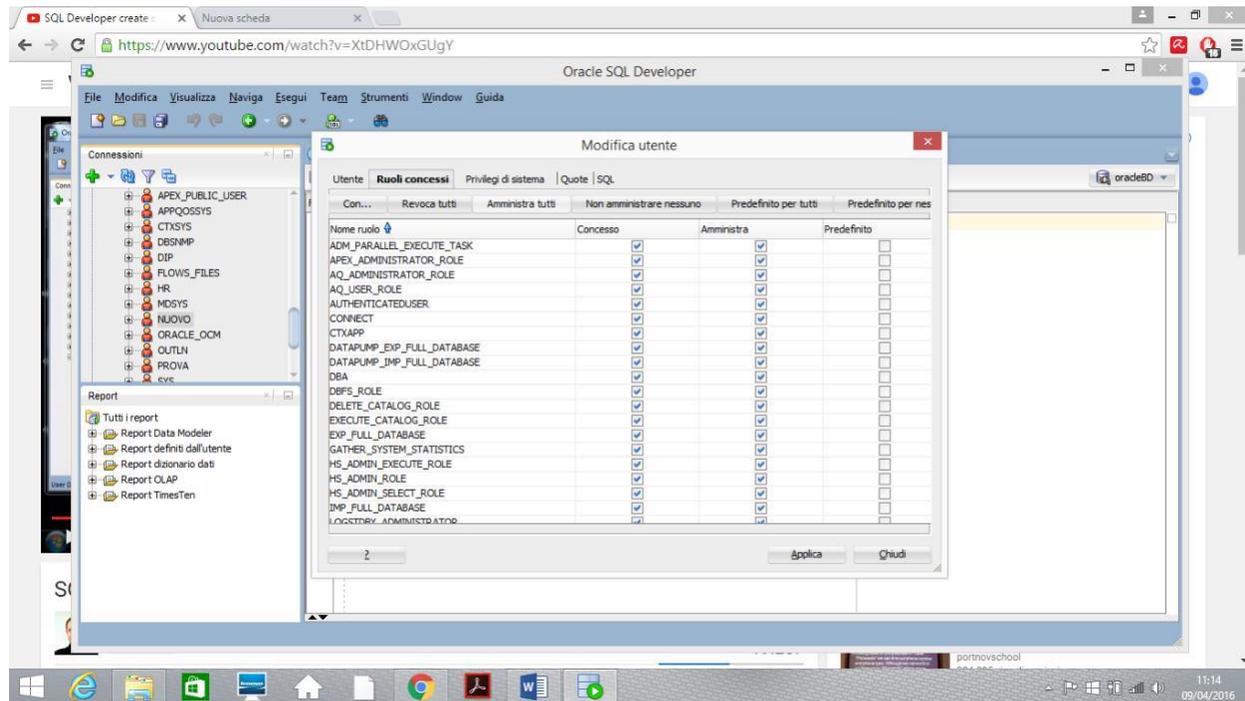
Let's see now how to create this new user. It is necessary to open SQL Developer and then a connection to the DBMS Oracle (we have just opened the connection oracleBD). After the opening of the connection (with user SYSTEM), click on the connection itself and a menu with table, views etc. will open. 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.



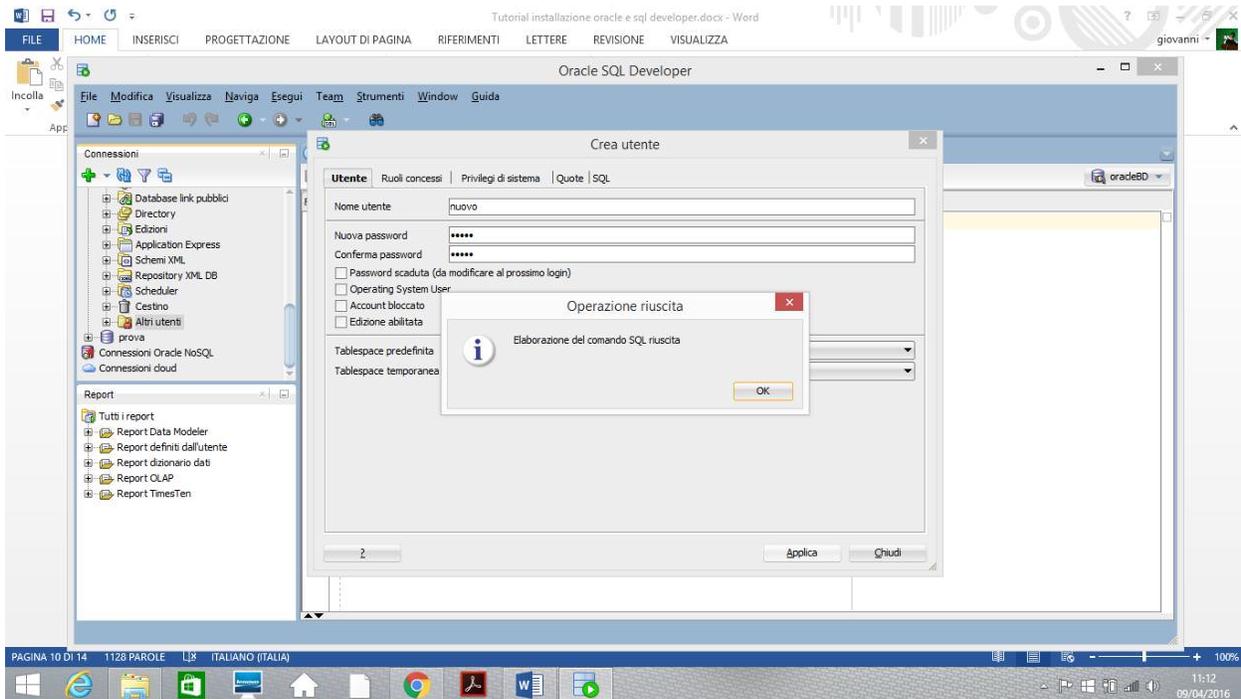
A page like the figure below will open, in which you can insert the username and the password (we wrote 'NEW'(uppercase)) and define the temporary default tablespace (select [USERS] and [TEMP] as shown in the following figure). ***In order to avoid problems, write the new username only in uppercase letters.***



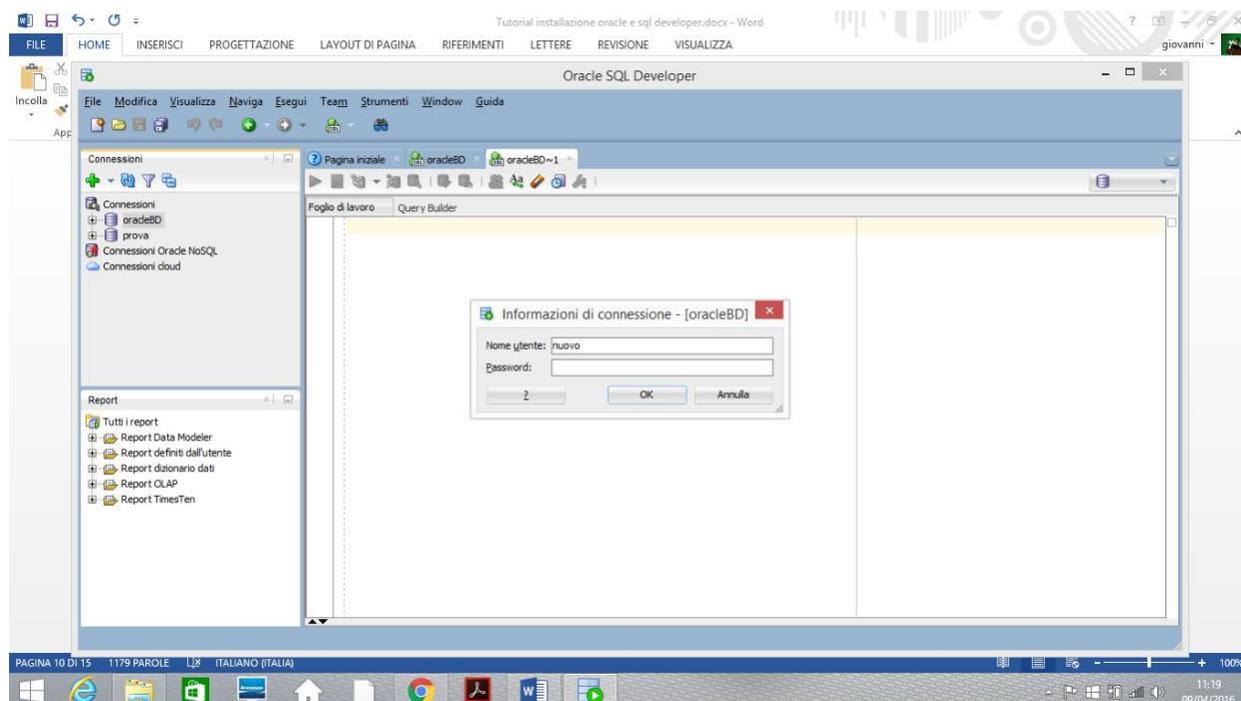
Select the tab on the top right “Granted roles”. A new page will open, as shown in the following figure. Click on “Administer all”, granting all privileges to the new user.



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 exercitations 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".