

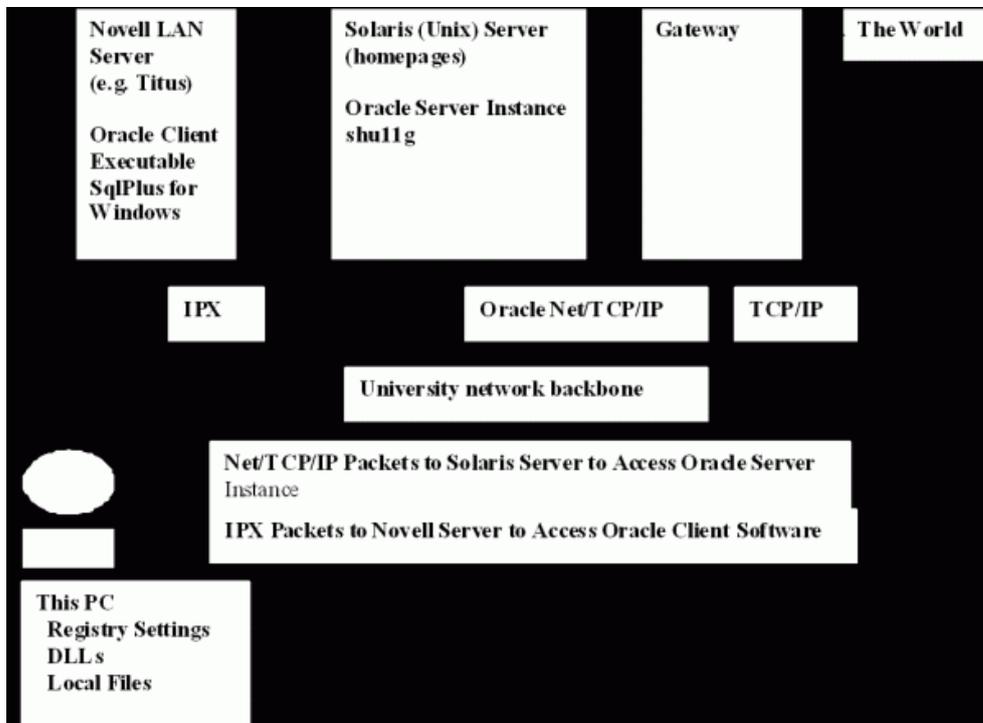
Getting started with Oracle

The purpose of these pages is to enable you to get started with using Oracle software. They explain how to create an Oracle account and how to start up and begin to use the development tool SqlPlus for Windows. The use of the equivalent product in a UNIX environment is also explained.

Oracle is deployed at SHU for you to use in client/server mode. There are opportunities for developing multi-tier, web based applications using Oracle. You can access Oracle services from both on and off campus. More information can be found about Oracle products at <http://oracledocs.shu.ac.uk>

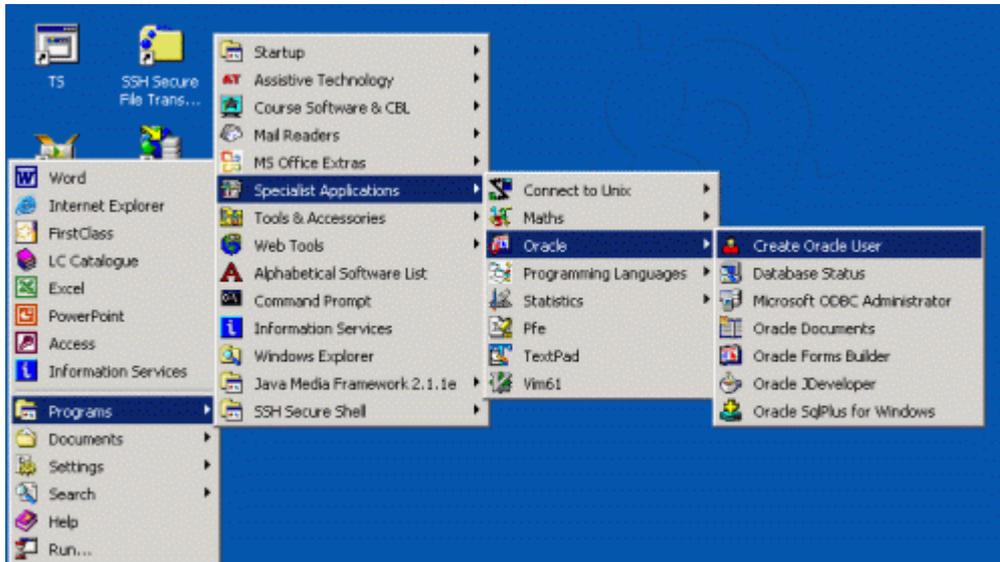
The network infrastructure

Oracle is deployed at SHU to enable you to work with it both as a client/server product and as a web product. Most people will start by using SqlPlus for Windows. This application can be deployed on all Managed Desktop PCs in the University. The application enables you to access and work with their data stored in the Oracle database mounted on a UNIX server.



Starting the *Create User* tool

Students at SHU can create their own accounts to work with the Oracle server. The account creation application can be accessed at <http://homepages.shu.ac.uk/~oracle/cgi-bin/ucreate.pl> or from the desktop menu at the location shown below.



Using the *Create User* tool

You must be student registered at SHU to be able to create your account. To complete the form you need to know:

- Your network login name
- Your forename, family name and birthday
- Your student number (shown on your student card)
- A password that you can remember. It must begin with a letter and can include numbers

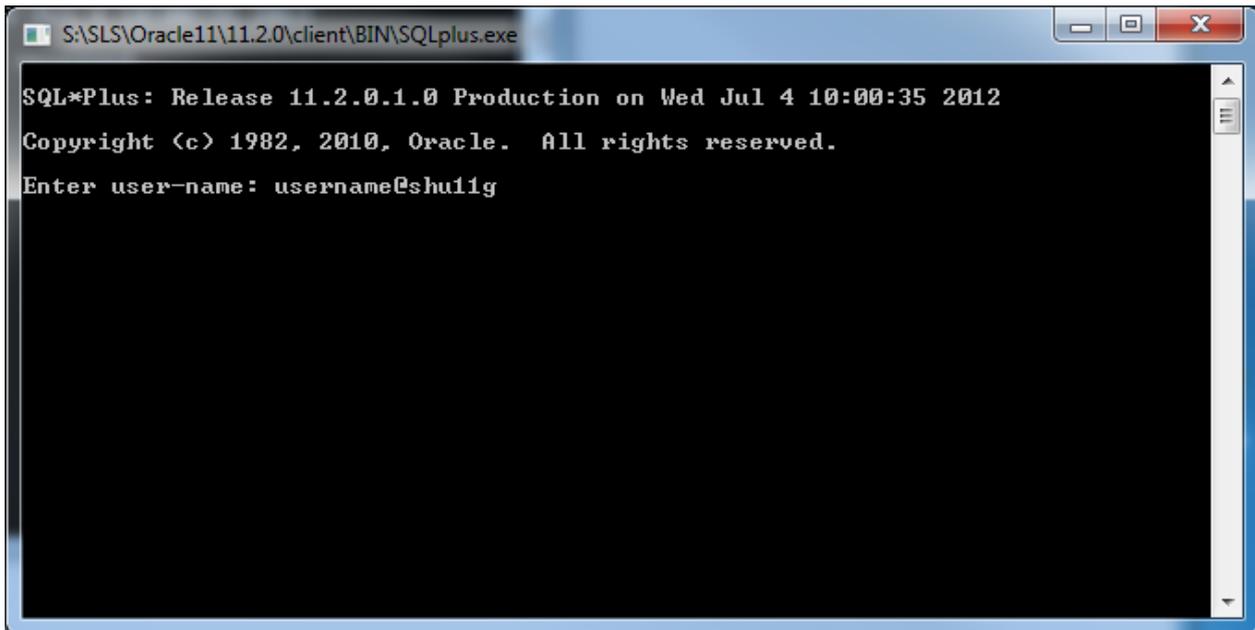
A screenshot of a web browser window displaying the 'Create Oracle and APEX Accounts' form for Sheffield Hallam University. The form is titled 'Create Oracle and APEX Accounts Sheffield Hallam University'. It contains several input fields: 'User Name' (with a note 'Your network username'), 'Forename', 'Family Name', 'Student Number' (with a note 'If there is a slash followed by another number at the end then omit both'), 'Date of Birth' (with a note 'In the format DD-MON-YYYY e.g. 23/DEC/1981'), 'Password' (with a note 'Must begin with a letter and be at least eight characters in length and contain alphanumeric characters'), and 'Confirm Password'. There are 'Clear Form' and 'Create User' buttons at the bottom. Below the form, there is a link to 'Getting Started with Oracle' and a link to 'Service Information Document'. The browser window title is 'Create Oracle and APEX Accounts - Windows Internet Explorer'.

When you have completed and submitted your request for an Oracle account successfully, your account information will be confirmed by e-mail.

If you want to create an account for yourself you can browse the [Create Oracle User](#) form.

Starting SQL Plus for Windows

SqlPlus for Windows is an application that allows you to access data stored in the Oracle database server. Data is manipulated using Structured Query Language (SQL). You can start to use SqlPlus for Windows as soon as you have created your Oracle account. It is started from the Managed Desktop menu, like this:

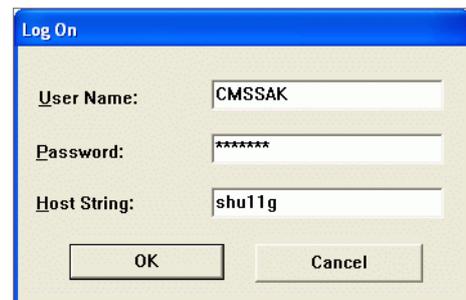


Running SqlPlus for Windows

Before you can run SqlPlus for Windows you must authenticate. When you do this you are establishing a client/server connection to the Oracle server which is running on a remote computer in the University. You need to provide:

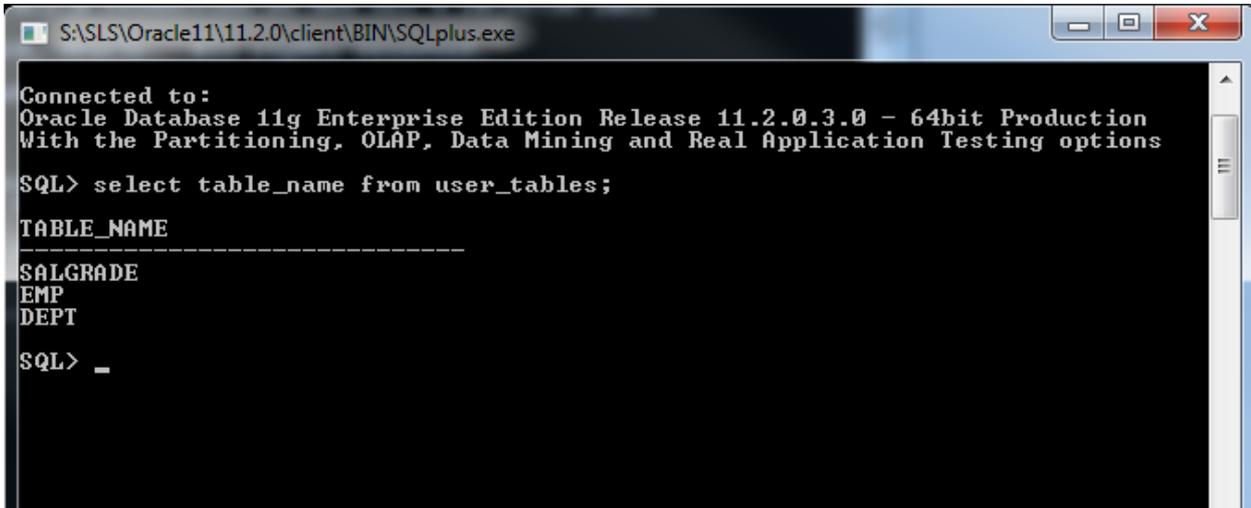
- Your Oracle Username (which is the same as your network Username).
- The password that you chose when you created your account.
- Append the host string with an ampersand i.e. @shu11g to your username when you enter your username to login, as shown in the image.

At the time of writing (Jan 03) the **Host String** is **shu11g**. The login dialog looks like this:



Executing an SQL query

SQL allows you to execute a query on data in the database using the **select** keyword. Metadata about the users' tables is stored in the data dictionary. All users at SHU have (by default) three tables in their schema. The screen shot below shows the select table_name from user_tables; being executed:



This shows the tables which are owned by the user asslb who is currently authenticated. Note that information is displayed immediately after login which shows the version information for both the client and the server software that is currently being used.

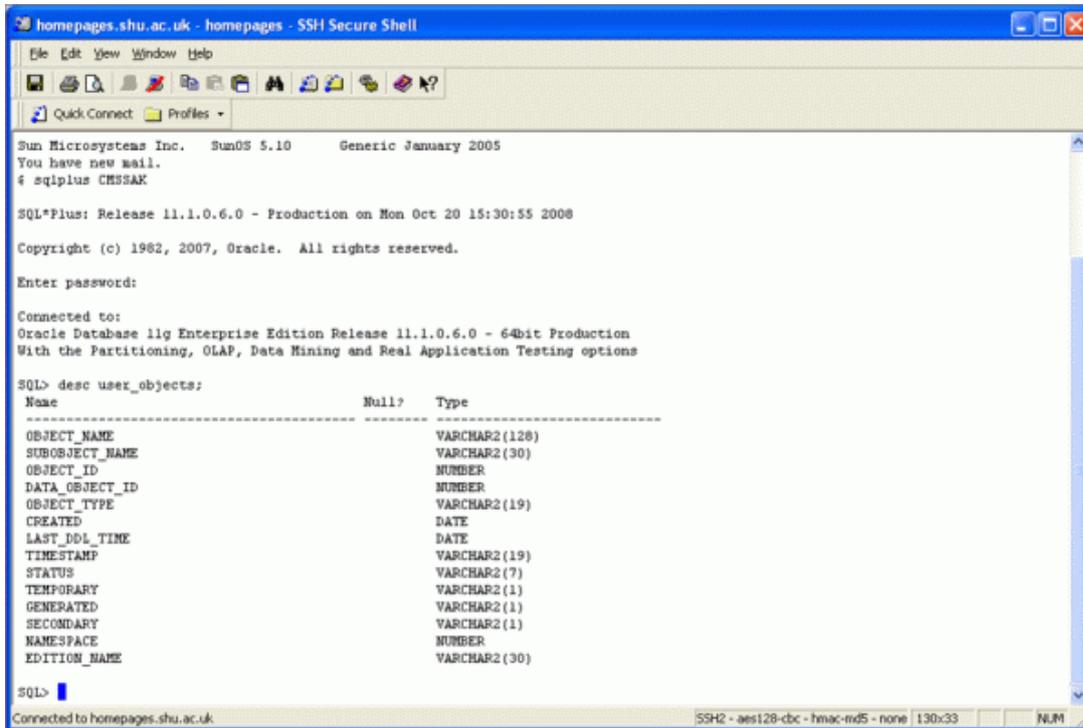
Do it from UNIX!

An SqlPlus client is also available on the UNIX server which is available for students' use. If you want to use this on-campus then use Vista Exceed to access the UNIX server. This is on the Managed Desktop menu as shown below:



Unix SqlPlus session

Here the user is getting metadata about his database objects using the **user_objects** dictionary view:



```
homepages.shu.ac.uk - homepages - SSH Secure Shell
File Edit View Window Help
Sun Microsystems Inc. SunOS 5.10 Generic January 2005
You have new mail.
$ sqlplus CMESSAK

SQL*Plus: Release 11.1.0.6.0 - Production on Mon Oct 20 15:30:55 2008
Copyright (c) 1982, 2007, Oracle. All rights reserved.

Enter password:

Connected to:
Oracle Database 11g Enterprise Edition Release 11.1.0.6.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

SQL> desc user_objects;
Name Null? Type
-----
OBJECT_NAME VARCHAR2(128)
SUBOBJECT_NAME VARCHAR2(30)
OBJECT_ID NUMBER
DATA_OBJECT_ID NUMBER
OBJECT_TYPE VARCHAR2(19)
CREATED DATE
LAST_DDL_TIME DATE
TIMESTAMP VARCHAR2(19)
STATUS VARCHAR2(7)
TEMPORARY VARCHAR2(1)
GENERATED VARCHAR2(1)
SECONDARY VARCHAR2(1)
NAMESPACE NUMBER
EDITION_NAME VARCHAR2(30)

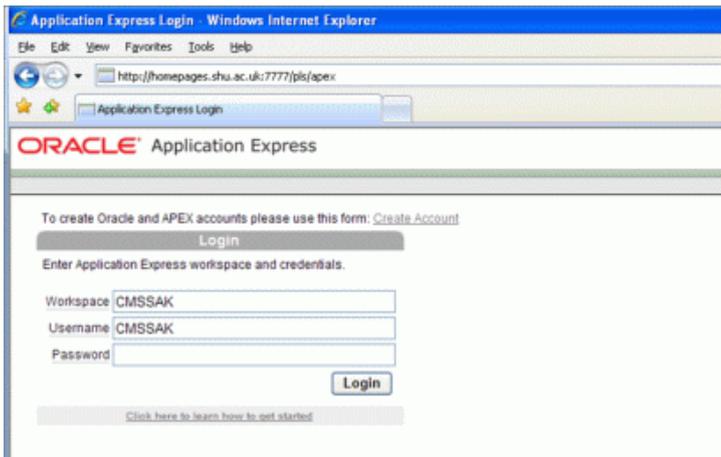
SQL>
```

If you want to find a dictionary view on some topic, say "objects", a good way is to use the command

```
select * from dict where table_name like '%OBJECTS%';
```

Note that the % is a wild card for anything, that the string must be enclosed with single quotes, and that dictionary table names are in upper case.

Using Oracle APEX



Running a stored procedure

One of the powerful features of Oracle's multi-tiered architecture is that code can be defined, then stored and run from within the Oracle server. Here the user is connected to Oracle with a Windows/Telnet session. The source code for a user-defined procedure has been checked in the *user_source* metadata table and then the procedure is executed.

A screenshot of an SSH Secure Shell terminal window titled "homepages.shu.ac.uk - homepages - SSH Secure Shell". The terminal shows a SQL prompt "SQL>" followed by the command "select text from user_source where name = 'MYDATE' order by line;". The output shows "TEXT" followed by a dashed line and the source code for a procedure named "mydate". The code is: "procedure mydate is today date; begin today := sysdate; DBMS_OUTPUT.PUT_LINE(sysdate); end;". Below the code, it says "7 rows selected." and "SQL> exec mydate;". The output of the execution is "PL/SQL procedure successfully completed." and the prompt "SQL>" is shown again with a cursor. The status bar at the bottom indicates "Connected to homepages.shu.ac.uk" and "SSH2 - aes128-cbc - hmac-md5 - none | 111x20 | NUM".

More information can be found about Oracle products at <http://oracledocs.shu.ac.uk>