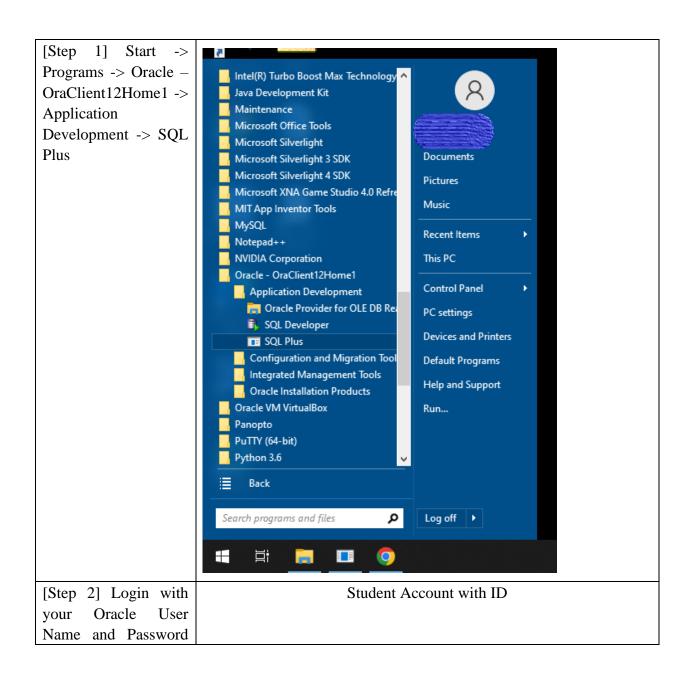
COMP5112 Lab 6

1. Objective

- a) Learn the usage of SQL*Plus
- b) Learn the basic operation in oracle DBMS, i.e., create load tables, run simple SQL queries

2. Login SQL*Plus



(Host String must be "dbms" without quotes)

If login fails, try to add a double quote on the username,

"22012345g" @dbms

SQL*Plus: Release 12.1.0

Copyright (c) 1982, 2013

Enter user-name: 2201234

Enter password:

SQL Plus

SQL*Plus: Release 12.1.0.1.0 Production on Fri Oct 7 12:48:51 2022

Copyright (c) 1982, 2013, Oracle. All rights reserved.

Enter user-name: 22012345g@dbms
Enter password:

Next, you can execute commands.

The references to all commands can be found in https://docs.oracle.com/en/database/oracle/oracle-database/21/sqpug/SQL-Plus-command-reference.html#GUID-177F24B7-D154-4F8B-A05B-7568079800C6

3. Introduction to the tables

We shall use the following five tables in this lab.

				<u> 1</u> a	ble cor	ntent					
FNAME	MINIT	NIT LNAME		CPR	BDATE		ADDRESS	SEX	SALARY	DNO	
Lars	Т	Andersen		123	1955-12-10		Klarup	M	15,000	12	
Kristian	С	Bohr		456	1965-1	10-05	Tylstrup	M	18,000	11	
Charlotte	F	Kierkegaard		789	1975-08-06		Vejgaard	F	14,000	11	
Uffe	J			111				M	30,000	12	
Hans	_	Brahe							20,000	10	
Helle	_	Dreyer			1950-01-08				,	10	
Peter		Nielsen			1973-05-30				,	12	
									,	11	
Tina	С	Jacobs	sen	321	1963-1	11-16	Nytorv	F	26,000	12	
	DNAME DNU			MBER	MGRCPR		MGRSTAI	RTDAT	rE		
	Cons	onsProd 10			333		1994-10-01	1994-10-01			
	Indu	Prod 11			654		1995-05-01				
	Rese	arch	12		111		1990-06-15				
	PNAME			PNUM	PNUMBER PLO		OCATION	DNU	JM		
	Mob	MmedMonitor		2 Nør 3 Aar		Nør	Nørresundby				
	Inter					Nør	Nørresundby				
	$Mm\epsilon$					hus	11				
	Paln					Aall	oorg	10			
MobileOffice			ee	5 Aar		hus 11					
DNBR DLOCATION 10 Aalborg 10 Nørresundby 11 Aarhus 12 Nørresundby											
	Kristian Charlotte Uffe Hans Helle	Kristian C Charlotte F Uffe J Hans U Helle O Peter P Niels A Tina C DNA Cons Indu Rese PNA Mob Inter Mme Palm	Kristian C Bohr Charlotte F Kierke Uffe J Bajers Hans U Brahe Helle O Dreyer Peter P Nielse Niels A Thory Tina C Jacobs DNAME ConsProd InduProd Research PNAME MobilePhon Interactive MmedMoni PalmTop	Charlotte F Kierkegaard	Kristian C Bohr 456 Charlotte F Kierkegaard 789 Uffe J Bajers 111 Hans U Brahe 222 Helle O Dreyer 333 Peter P Nielsen 987 Niels A Thorvaldsen 654 Tina C Jacobsen 321 DNAME DNUMBER ConsProd 10 InduProd 11 Research 12 PNAME PNUM MobilePhone 1 InteractiveTV 2 MmedMonitor 3 PalmTop 4 MobileOffice 5 DNBR 10 10 11	Kristian C Bohr 456 1965-1	Kristian C Bohr 456 1965-10-05 Charlotte F Kierkegaard 789 1975-08-06 Uffe J Bajers 111 1960-09-07 Hans U Brahe 222 1970-04-02 Helle O Dreyer 333 1950-01-08 Peter P Nielsen 987 1973-05-30 Niels A Thorvaldsen 654 1953-02-27 Tina C Jacobsen 321 1963-11-16 DNAME DNUMBER MGRCPR ConsProd 10 333 InduProd 11 654 Research 12 111 PNAME PNUMBER PLO MobilePhone 1 Nør InteractiveTV 2 Nør MmedMonitor 3 Aar PalmTop 4 Aali MobileOffice 5 Aar DNBR DLOCATION 10 Aalborg 10 Nørresundt 11 Aarhus 12 Nørresundt 12 Nørresundt 12 Nørresundt 13 Nørresundt 14 Nørresundt 15 Nørresundt 16 Nørresundt 17 Nørresundt 18 Nørresundt 19 Nørresundt 10 Nørresundt 11 Aarhus 12 Nørresundt 12 Nørresundt 13 Nørresundt 14 Nørresundt 15 Nørresundt 16 Nørresundt 17 Nørresundt 18 Nørresundt 19 Nørresundt 10 Nørresundt 10 Nørresundt 11 Nørresundt 12 Nørresundt 12 Nørresundt 13 Nørresundt 14 Nørresundt 15 Nørresundt 16 Nørresundt 17 Nørresundt 18 Nørresundt 19 Nørresundt 10 Nørresundt 10 Nørresundt 11 Nørresundt 12 Nørresundt 11 Nørresundt 12 Nørresundt 13 Nørresundt 14 Nørresundt 15 Nørresundt 16 Nørresundt 17 Nørresundt 18 Nørresundt 19 Nørresundt 19 Nørresundt 10 Nørresundt 10 Nørresundt 11 Nørresundt 12 Nørresundt 11 Nørresundt 12 Nørresundt 13 Nørresundt 14 Nørresundt 15 Nørresundt 16 Nørresundt 17 Nørresundt 17 Nørresundt 18 Nørresundt 18 Nørresundt 18 Nørresundt 18 Nørresundt 19 Nørresundt 19 Nørresundt 19 Nørresundt 19 Nørresundt 19 Nørresundt 19 Nø	Kristian C Bohr 456 1965-10-05 Tylstrup	Kristian C Bohr 456 1965-10-05 Tylstrup M	Kristian C Bohr 456 1965-10-05 Tylstrup M 18,000	

Allocations	ECPR	PNO	HOURS
	123	3	27
	456	3	12
	789	4	35
	111	1	15
	111	2	5
	222	5	30
	333	3	20
	333	5	20
	987	4	25
	654	2	30
	321	1	15
	321	2	10

4. Basic Operation

Execute SQL file. This command will execute the SQL command in the file one by one:

Command: @<absolute_path_of_sql_file>

Show tables information in DBMS:

Command: SELECT table_name FROM user_tables;

Drop table;

Command: DROP TABLE <your_table_name>

Insert data:

Command: INSERT INTO <table_name> VALUES <data_information>

Query

Command: SELECT <column_name> FROM <table_name> WHERE <condition>

5. Task

[Step 0] Extract the content of "Lab6code.zip" to a folder.

[Step 1] Create the tables by executing the CREATE TABLE statements in the "create_table.sql" file.

Note:

Copy, pasting, and executing the command from the SQL file is acceptable.

A convenient way is to use "@<absolute_path_of_sql_file>" command without a double quote for executing the whole SQL file.

Expected output

```
SQL> @\\COMPDrive\staff2\cszbian\COMProfile\Desktop\allfiles\create_table.sql

Table created.

Table created.

Table created.

Table created.

Table created.
```

[Step 2] Insert data into tables (shown in part 3) by executing the INSERT statements in the "insert_<table_name>.sql" file.

Note:

It may meet an error when executing the "insert_employees.sql". Table Employees have a date variable whose local format is inconsistent with the insertion statement. Please run

ALTER SESSION SET NLS_DATE_FORMAT = 'YYYY-MM-DD';

before the execution.

You can check whether the insertion is a success by the command

SELECT * FROM <table_name>

Expected output

```
SQL> @\\COMPDrive\staff2\cszbian\COMProfile\Desktop\allfiles\insert_departments.sql

1 row created.

1 row created.

COUNT(*)

3

Commit complete.
```

[Step 4] Try to run the SQL queries in the file "queries.sql" one by one. Suppose the above steps are correctly executed. Then, the output would be like the following screenshot.

Query 1:

```
■ Select SQL Plus
Charlotte
                               F Kierkegaard
                                                              789
F 14000
1975-08-06 Vejgaard
11
Uffe
1960-09-07 Gistrup
                                                              111
M 30000
 DNO
-----12
Hans
1970-04-02 Svenstrup
10
                                                              222
M 20000
                               U Brahe
                               O Dreyer
M LNAME
                                                              S SALARY
                                                              F 35000
Peter
1973-05-30 Lundby
12
                                                              987
M 23000
FNAME
                               M LNAME
                                                              S SALARY
DNO
Niels
1953-02-27 Vodskov
                                                              654
M 32000
Tina
1963-11-16 Nytorv
12
                                                              321
F 26000
                                                              CPR
S SALARY
FNAME
                               M LNAME
BDATE ADDRESS

DNO
9 rows selected.
```

Query 2:

Query 3:

```
SQL> SELECT AVG(SALARY) "Average Salary"FROM Employees;

Average Salary
------
23666.6667
```

Query4:

```
SQL> INSERT INTO Employees VALUES ('Viggo', 'M', 'Madsen', 999, '1945/12/10', 'København', 'M', 45000, 13);
1 row created.
```

Query5:

```
ftSQL> UPDATE Employees SET SALARY = 35000, DNO = 12WHERE FName = 'Viggo';
1 row updated.
```

Query 6:

```
SQL> DELETE FROM Employees WHERE FName = 'Viggo';
1 row deleted.
```

[Step 5] Try to guess the meaning of SQL queries in the "*.sql" files.