

-[Solid underline means 'primary key' of that table and dotted underline means 'foreign key' referencing the 'primary key' of the second table.]

1. Write the commands for selecting all the users of my database in sorted manner in descending order. 2

2. Mr. Perez created a user called 'Ronaldo' with the password 'real07'. But when he tried to login, he couldn't! Can u tell why he faced the problem? Write the commands to solve this problem.

Write the commands to enable the user to login in the database and create new tables.

3. Suppose I have created a table where I have accidentally given type varchar2 (25) for the column 'AGE' which is wrong. Now write the appropriate command for changing this column to the proper type. 2+2

4. Write the necessary DDL for creating the following tables: 2
a. Scientist(id, name, totalPublications, age, nationality)
b. Journal(paperID, title, scientistID, year)

5. Suppose you have created a table called 'EMP_New' (id, name) where 'id' is the primary key. But later on you found out that you want to add a new column to the table called 'DeptID' which will work as a foreign key for this table referencing to the 'ID' column of the 'department' table. 5
Just write the statement for adding this new foreign key after creating the main table.

6. Create the following table, insert data and write the proper sql statements. 2
5+5+20*2.5

EMPLOYEES

<u>SSN</u>	NAME	LASTNAME	AGE	<u>DEPARTMENT</u>
1	Michael	Rogers	37	14
2	Anand	Manikutty	51	14
3	Carol	Smith	35	37
4	Joe	Stevens	34	37
5	Mary-Anne	Foster	28	14
6	George	ODonnell	51	77
7	John	Doe	59	59
8	David	Smith	45	77
9	Zacary	Efron	20	59
10	Eric	Goldsmith	30	59
11	Elizabeth	Doe	22	14
12	Kumar	Swamy	27	14

DEPARTMENT		
CODE	NAME	BUDGET
14	IT	65000
37	ACCOUNTING	15000
59	HUMAN RESOURCES	240000
77	RESEARCH	55000

- i. Show the department names where the budget is greater than the overall minimum budget.
- ii. Select the code of departments with less than three employees.
- iii. Make a list containing the department names along with the number of employees working in that particular department.
- iv. Show all the department names and codes except the department having the minimum budget.
- v. What is the number of employees whose last name is "Smith".
- vi. Select the name and last name of each employee, along with the name and budget of the employee's department.
- vii. Select the departments with a budget larger than the average budget of all the departments.
- viii. Select the sum of all the departments' budgets.
- ix. Count the total number of unique departments using the "Employees" table.
- x. Which department has the maximum budget?
- xi. Show the name of the oldest employee in IT department.
- xii. Show the department names where the minimum age of the employees belonging to that department is less than 36.
- xiii. Select all the data of employees that work in department 14 or department 77.
- xiv. Select the name and last name of employees working for departments with a budget greater than \$60,000
- xv. Show the department names along with the average age of its employees.
- xvi. Select the last name of all employees, without duplicates.
- xvii. Increase the budget of all departments by 20%.
- xviii. Add a new department called "Quality Assurance", with a budget of \$40,000 and departmental code 95.
- xix. Reassign all employees from the Research department (code 77) to Quality Assurance (code 95).
- xx. Delete from the table all employees in the IT department (code 14).