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**College of Engineering and Information Technology**

Database Administration – INT321

2023/2024

Lab # 1 Solution

Consider the Employees, and Department table shown below

**Company Database**

**Employee**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Empno** | **Ename** | **Job** | **MGR** | **Hiredate** | **Sal** | **Comm** | **DeptNo** |
| 7839 | King | President |  | 17-Nov-81 | 5000 |  | 10 |
| 7698 | Blake | Manager | 7839 | 01-May-81 | 2850 |  | 30 |
| 7782 | Clark | Manager | 7839 | 09-Jun-81 | 2450 |  | 10 |
| 7566 | Johns | Manager | 7839 | 02-Apr-81 | 2950 |  | 20 |
| 7654 | Martin | Salesman | 7698 | 28-Sep-81 | 1250 | 1400 | 30 |
| 7499 | Allen | Salesman | 7698 | 20-Feb-81 | 1600 | 300 | 30 |
| 7844 | Turner | Salesman | 7698 | 08-Sep-81 | 1500 | 0 | 30 |
| 7900 | James | Clerk | 7698 | 03-Dec-81 | 950 |  | 30 |
| 7521 | Ward | Salesman | 7698 | 22-Feb-81 | 1250 | 500 | 30 |
| 7902 | Ford | Analyst | 7566 | 03-Dec-81 | 3000 |  | 20 |
| 7369 | Smith | Clerk | 7902 | 17-Dec-80 | 800 |  | 20 |
| 7788 | Scott | Analyst | 7566 | 09-Dec-82 | 3000 |  | 20 |
| 7876 | Adams | Clerk | 7788 | 12-Jan-83 | 1100 |  | 20 |
| 7934 | Miller | Clerk | 7782 | 23-Jan-82 | 1300 |  | 10 |

**Department**

|  |  |  |
| --- | --- | --- |
| **DeptNo** | **Dname** | **Location** |
| 10 | Accounting | Ajman |
| 20 | Research | Sharajah |
| 30 | Sales | Abu Dhabi |
| 40 | Operations | Dubai |

1. Create an anonymous block to output the phrase “My PL/SQL Block Works” to the screen.

**set serveroutput on;**

**begin**

**dbms\_output.put\_line('My PL/SQL Block Works');**

**end;**

**/**

1. Create a block that declares two variables. The first is of type number and the second of type varchar2. The first variables should be assigned a value of your age and the second assigned your name. The program should display: My name is … and My age is…. For example if your age is 20 and your name is Sami, then the program should display: My name is Hadi and my age is 20.

DECLARE

age number;

myName VARCHAR2(30);

begin

age:= 52;

myName:= 'Elfadil';

dbms\_output.put\_line('My Name is '||myName||' My age is '||age);

end;

/

1. Create a PL/SQL block that selects the maximum department number in the DEPARTMENT table and stores it in variable. Print the results to the screen.

ANS:

Create the table and place data on it:

create table departments (DeptNo number(2) primary key, Dname varchar2(30), dLocation varchar2(30));

insert into departments values (10, 'Accounting', 'Ajman');

insert into departments values (20, 'Researh', 'Sharjah');

DECLARE

dnumber number;

begin

select MAX(deptno) into dnumber from departments;

dbms\_output.put\_line('The maximum department number is '||dnumber);

end;

/

1. Create a PL/SQL block that declare and read three variable that correspond to DeptNo, Dname, and Location. The program then insert a new department into the DEPARTMENTS table using the above variable values.

DECLARE

dnumber number;

DepartmentName varchar2(30);

deptLocation varchar(30);

begin

dnumber:=&dnumber;

DepartmentName:=&DepartmentName;

DeptLocation:= &DeptLocation;

insert into departments values (dnumber, DepartmentName, DeptLocation);

dbms\_output.put\_line('Record inserted ');

end;

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