



# **Ahsanullah University of Science and Technology (AUST)**

**Department of Computer Science and Engineering**

**Course No: CSE4126**

**Course Title: Distributed Database Systems**

**Assignment Number: 03**

**Question 1:** Create a procedure that will find the maximum and minimum salary from Emp relation.

**Question 2:** Use Cursor to find the ename, salary of each employee whose salary exceeds the budget of all of the departments that he or she works in.

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**Section:** A

**Lab Group:** A2

### **Solution to Question 1:**

#### **Procedure: procMaxMinSalary**

```
set serveroutput on;
```

```
create or replace procedure procMaxMinSalary
```

```
IS
```

```
    MaxSal Emp.salary%type;
```

```
    MinSal Emp.salary%type;
```

```
begin
```

```
    select MIN(salary) into MinSal
```

```
    from Emp;
```

```
    DBMS_OUTPUT.PUT_LINE('Minimum Salary' || ' ' || MinSal);
```

```
    select MAX(salary) into MaxSal
```

```
    from Emp;
```

```
    DBMS_OUTPUT.PUT_LINE('Maximum Salary' || ' ' || MaxSal);
```

```
end procMaxMinSalary;
```

```
/
```

#### **Main Function:**

```
set serveroutput on;
```

```
declare
```

begin

    procMaxMinSalary;

end;

/

### Output:

```
SQL> @"E:\4.1 semester\Distributed Database Systems Lab\New assignment 3\160204033\MaxMinSalaryProcedure(question_2).sql"
"
Procedure created.

SQL> @"E:\4.1 semester\Distributed Database Systems Lab\New assignment 3\160204033\MaxMinSalaryMain(question_2).sql"
Minimum Salary 2597
Maximum Salary 10310

PL/SQL procedure successfully completed.
```

## Solution to Question 2:

set serveroutput on;

declare

EmployeeName Emp.ename%type;

EmployeeSalary Emp.salary%type;

EmployeeID Emp.eid%type;

DepartmentBudget Dept.budget%type;

begin

DBMS\_OUTPUT.PUT\_LINE('ename' || ' ' || 'salary');

for r in (select a.eid as "EMPID",

a.ename as "EMPNAME",

a.Salary as "EMPSAL",

max(c.budget) as "DEPTBUDGET"

from Emp a,Works b,Dept c

where b.did=c.did

and a.eid=b.eid

group by a.eid,a.ename,a.salary) loop

EmployeeName:=r.EMPNAME;

EmployeeSalary:=r.EMPSAL;

```
EmployeeID:=r.EMPID;

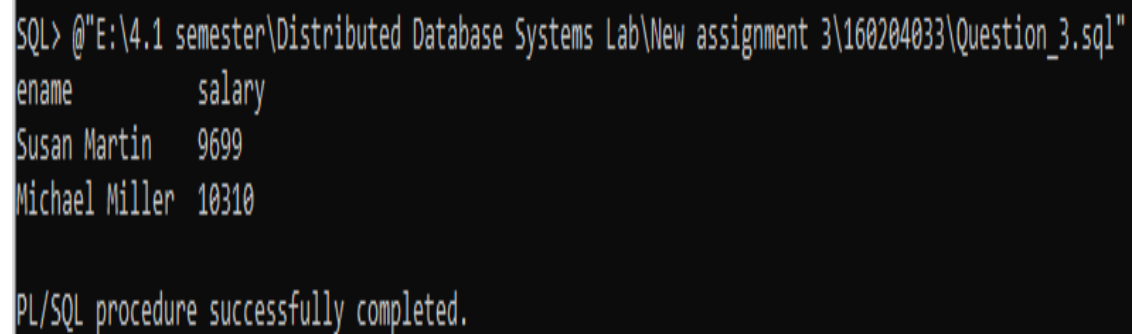
DepartmentBudget:=r.DEPTBUDGET;

if(EmployeeSalary>DepartmentBudget) then
    DBMS_OUTPUT.PUT_LINE(EmployeeName || ' ' || EmployeeSalary);
end if;

end loop;

end;

/
```

**Output:**A screenshot of a SQL command window with a black background and white text. The prompt 'SQL>' is followed by the file path '@E:\4.1 semester\Distributed Database Systems Lab\New assignment 3\160204033\Question\_3.sql'. The output shows a table with two columns: 'ename' and 'salary'. The first row contains 'Susan Martin' and '9699'. The second row contains 'Michael Miller' and '10310'. At the bottom, the message 'PL/SQL procedure successfully completed.' is displayed.

```
SQL> @"E:\4.1 semester\Distributed Database Systems Lab\New assignment 3\160204033\Question_3.sql"
ename      salary
Susan Martin  9699
Michael Miller 10310

PL/SQL procedure successfully completed.
```