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UID : 23BCS13776

SECTION : 23_KRG_1(B)

QUESTION 1 : MAXIMUM salary departmentwise (medium)

ANSWER :

```
CREATE TABLE department (  
    dept_id INT PRIMARY KEY,  
    dept_name VARCHAR(50)  
);
```

```
CREATE TABLE employee (  
    emp_id INT PRIMARY KEY,  
    emp_name VARCHAR(50),  
    salary INT,  
    dept_id INT,  
    FOREIGN KEY (dept_id) REFERENCES department(dept_id)  
);
```

```
INSERT INTO department (dept_id, dept_name) VALUES  
(1, 'IT'),  
(2, 'SALES');
```

```
INSERT INTO employee (emp_id, emp_name, salary, dept_id) VALUES  
(1, 'JOE', 70000, 1),  
(2, 'JIM', 90000, 1),  
(3, 'HENRY', 80000, 2),  
(4, 'SAM', 60000, 2),  
(5, 'MAX', 90000, 1);
```

```
SELECT d.dept_name, e.emp_name, e.salary
```

```

FROM employee AS e
INNER JOIN department AS d ON d.dept_id = e.dept_id
WHERE e.salary = (
    SELECT MAX(salary)
    FROM employee
    WHERE dept_id = e.dept_id
)
ORDER BY d.dept_name, e.emp_name;

```

Results Messages

	dept_name	emp_name	salary
1	IT	JIM	90000
2	IT	MAX	90000
3	SALES	HENRY	80000

QUESTION 2 : Merging Employee Histories: Who Earned Least? (Hard)

ANSWER :

```

CREATE TABLE TableA (
    EmpID INT,
    Ename VARCHAR(50),
    Salary INT
);

```

```

CREATE TABLE TableB (
    EmpID INT,
    Ename VARCHAR(50),
    Salary INT
);

```

```

INSERT INTO TableA VALUES

```

(1, 'AA', 1000),

(2, 'BB', 300);

INSERT INTO TableB VALUES

(2, 'BB', 400),

(3, 'CC', 100);

SELECT EmpID, Ename, Salary

FROM (

SELECT EmpID, Ename, Salary,

ROW_NUMBER() OVER (PARTITION BY EmpID ORDER BY
Salary ASC) AS rn

FROM (

SELECT EmpID, Ename, Salary FROM TableA

UNION ALL



SELECT EmpID, Ename, Salary FROM TableB

) AS combined

) AS ranked

WHERE rn = 1

ORDER BY EmpID;

 Results		 Messages	
	EmpID	Ename	Salary
1	1	AA	1000
2	2	BB	300
3	3	CC	100