DATABASE SYSTEMS - I

LAB ASSIGNMENT 3

SUBMITTED TO

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Submitted by

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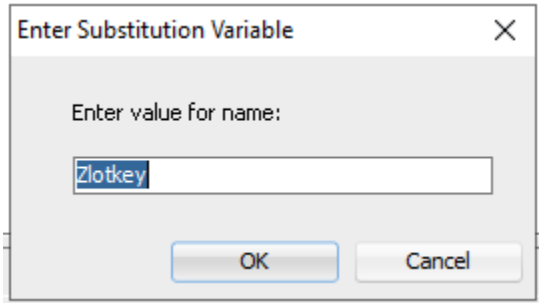
Q1: Write SQL statements for the following information needs using Subqueries to Solve Queries

i. The HR department needs a query that prompts the user for an employee last name. The query then displays the last name and hire date of any employee in the same department as the employee whose name they supply (excluding that employee). For example, if the user enters Zlotkey, find all employees who work with Zlotkey (excluding Zlotkey).

```
SELECT last_name, hire_date
FROM employees
WHERE department_id = (SELECT department_id
                       FROM employees
                       WHERE last_name like '&name')
                       AND last_name <> '&name';
```



	LAST_NAME	HIRE_DATE
1	Russell	01-OCT-04
2	Partners	05-JAN-05
3	Errazuriz	10-MAR-05
4	Cambrault	15-OCT-07
5	Tucker	30-JAN-05
6	Bernstein	24-MAR-05
7	Hall	20-AUG-05
8	Olsen	30-MAR-06
9	Cambrault	09-DEC-06
10	Tuvault	23-NOV-07
11	King	30-JAN-04
12	Sully	04-MAR-04

ii. Create a report that displays the employee number, last name, and salary of all employees who earn more than the average salary. Sort the results in order of ascending salary.

```
SELECT employee_id, last_name, salary
FROM employees
WHERE salary > (SELECT avg(salary)
                FROM employees)
ORDER BY salary ASC;
```

	EMPLOYEE_ID	LAST_NAME	SALARY
1	203	Mavris	6500
2	123	Vollman	6500
3	165	Lee	6800
4	113	Popp	6900
5	155	Tuvault	7000
6	161	Sewall	7000
7	178	Grant	7000
8	164	Marvins	7200
9	172	Bates	7300
10	171	Smith	7400
11	154	Cambrault	7500
12	160	Doran	7500

iii. Create a report for HR that displays the department number, last name, and job ID for every employee in the Executive department.

```
SELECT department_id, last_name, job_id
FROM employees
WHERE department_id IN (SELECT department_id
                FROM departments
                WHERE department_name = 'Executive');
```

	DEPARTMENT_ID	LAST_NAME	JOB_ID
1	90	King	AD_PRES
2	90	Kochhar	AD_VP
3	90	De Haan	AD_VP

iv. Create a report for HR that displays the last name and salary of every employee who reports to King.

```
SELECT last_name, salary
FROM employees
WHERE manager_id IN (SELECT employee_id
                     FROM employees
                     WHERE last_name = 'King');
```

	LAST_NAME	SALARY
1	Kochhar	17000
2	De Haan	17000
3	Raphaely	11000
4	Weiss	8000
5	Fripp	8200
6	Kaufling	7900
7	Vollman	6500
8	Mourgos	5800
9	Russell	14000
10	Partners	13500
11	Errazuriz	12000
12	Cambrault	11000

Q2: Write SQL statements for the following information needs using the Set Operators

i. The HR department needs a list of countries that have no departments located in them. Display the country ID and the name of the countries. Use the set operators to create this report.

```
SELECT country_id,country_name
FROM countries
MINUS
SELECT l.country_id,c.country_name
FROM locations l JOIN countries c
ON (l.country_id = c.country_id)
JOIN departments d
ON d.location_id=l.location_id;
```

	COUNTRY_ID	COUNTRY_NAME
1	AR	Argentina
2	AU	Australia
3	BE	Belgium
4	BR	Brazil
5	CH	Switzerland
6	CN	China
7	DK	Denmark
8	EG	Egypt
9	FR	France
10	IL	Israel
11	IN	India
12	IT	Italy

ii. The HR department needs a list of department IDs for departments that do not contain the job ID ST_CLERK. Use the set operators to create this report.

```
SELECT department_id
FROM departments
MINUS
SELECT department_id
FROM employees
WHERE job_id = 'ST_CLERK';
```

	DEPARTMENT_ID
1	10
2	20
3	30
4	40
5	60
6	70
7	80
8	90
9	100
10	110
11	120
12	130

iii. Produce a list of jobs for departments 10, 50, and 20, in that order. Display the job ID and department ID by using the set operators.

```
SELECT DISTINCT job_id, department_id
FROM employees
WHERE department_id = 10
UNION ALL
SELECT DISTINCT job_id, department_id
FROM employees
WHERE department_id = 50
UNION ALL
SELECT DISTINCT job_id, department_id
FROM employees
WHERE department_id = 20;
```

	JOB_ID	DEPARTMENT_ID
1	AD_ASST	10
2	SH_CLERK	50
3	ST_CLERK	50
4	ST_MAN	50
5	MK_MAN	20
6	MK_REP	20

Q3: Write SQL statements for the following information needs manipulating Data using DML

Statements

i. Increase the commission percentage for every employee in department 80 by 5%.

	LAST_NAME	EMPLOYEE_ID	COMMISSION_PCT
1	Russell	145	0.45
2	Partners	146	0.35
3	Errazuriz	147	0.35
4	Cambrault	148	0.35
5	Zlotkey	149	0.25
6	Tucker	150	0.35
7	Bernstein	151	0.3
8	Hall	152	0.3
9	Olsen	153	0.25
10	Cambrault	154	0.25
11	Tuvault	155	0.2
12	King	156	0.4

```
UPDATE employees
SET commission_pct = commission_pct + 0.05
WHERE department_id = 80;
```

```
34 rows updated.
```

	LAST_NAME	EMPLOYEE_ID	COMMISSION_PCT
1	Russell	145	0.5
2	Partners	146	0.4
3	Errazuriz	147	0.4
4	Cambrault	148	0.4
5	Zlotkey	149	0.3
6	Tucker	150	0.4
7	Bernstein	151	0.35
8	Hall	152	0.35
9	Olsen	153	0.3
10	Cambrault	154	0.3
11	Tuvault	155	0.25
12	King	156	0.45