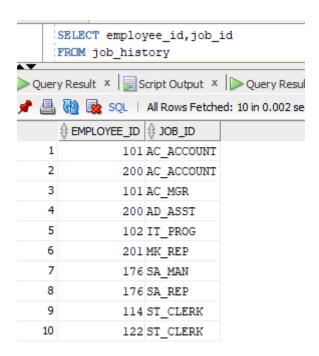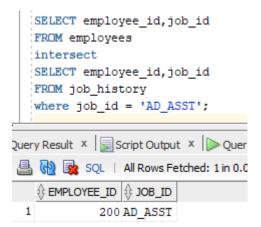## Lab Exercise 8: Using the Set Operators
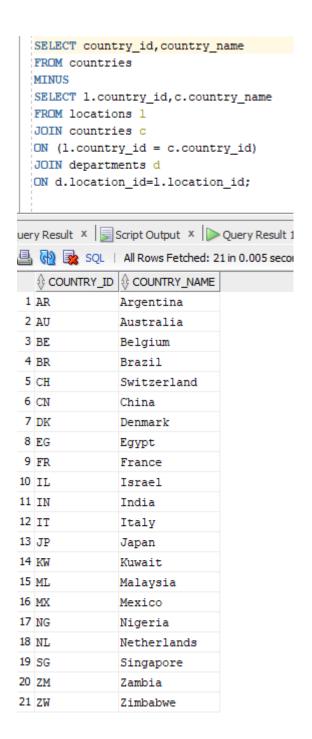
1. Produce a report to display all the employees that have change their job in the company during their service.

```
SELECT employee_id,job_id
FROM job_history
```

Query Result × | Script Output × | Query Resul

SQL | All Rows Fetched: 10 in 0.002 se

	EMPLOYEE_ID	JOB_ID
1	101	AC_ACCOUNT
2	200	AC_ACCOUNT
3	101	AC_MGR
4	200	AD_ASST
5	102	IT_PROG
6	201	MK_REP
7	176	SA_MAN
8	176	SA_REP
9	114	ST_CLERK
10	122	ST_CLERK

2. Retrieve the employees that have work as AD_ASST before and now having the same designation again.

```
SELECT employee_id,job_id
FROM employees
intersect
SELECT employee_id,job_id
FROM job_history
where job_id = 'AD_ASST';
```

Query Result × | Script Output × | Quer

SQL | All Rows Fetched: 1 in 0.0

	EMPLOYEE_ID	JOB_ID
1	200	AD_ASST

3. By using set operator, find the countries that don't have any department located in them. Display the country number and name.

```sql
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;
```

uery Result ×   Script Output ×   Query Result 1

All Rows Fetched: 21 in 0.005 secor

	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
13	JP	Japan
14	KW	Kuwait
15	ML	Malaysia
16	MX	Mexico
17	NG	Nigeria
18	NL	Netherlands
19	SG	Singapore
20	ZM	Zambia
21	ZW	Zimbabwe

4. Produce a report on list of jobs in department 60 and 90 by using the set operator. Display the department ID and job ID only.

```sql
SELECT DISTINCT job_id, department_id
FROM employees
WHERE department_id = 60

UNION ALL

SELECT DISTINCT job_id, department_id
FROM employees
WHERE department_id = 90
```

Query Result × | ► Query Result 1 × | Script Output × |

SQL | All Rows Fetched: 3 in 0.003 seconds

	JOB_ID	DEPARTMENT_ID
1	IT_PROG	60
2	AD_VP	90
3	AD_PRES	90

5. Produce a report for the following specifications.
   - Location ID and department name for all the departments regardless whether or not they belong to any city.
   - Location ID and city name regardless of whether or not they have department name.

	LOCATION_ID	DEPARTMENT_NAME	CITY
1	1000 (null)		Roma
2	1100 (null)		Venice
3	1200 (null)		Tokyo
4	1300 (null)		Hiroshima

```
SELECT location_id,to_char(null),city
FROM locations

UNION

SELECT location_id,department_name,to_char(null)
FROM departments
```

Query Result × | Query Result 1 × | Script Output × | Query Result 2 × | Qu

SQL | Fetched 50 rows in 0.004 seconds

	LOCATION_ID	TO_CHAR(NULL)	CITY
1	1000 (null)		Roma
2	1100 (null)		Venice
3	1200 (null)		Tokyo
4	1300 (null)		Hiroshima
5	1400	IT	(null)
6	1400 (null)		Southlake
7	1500	Shipping	(null)
8	1500 (null)		South San Francisco
9	1600 (null)		South Brunswick
10	1700	Accounting	(null)
11	1700	Administration	(null)
12	1700	Benefits	(null)