

EXP 7: COMPLEX SQL QUERY-II

C1. Express in SQL queries.

Country(name,continent,population,, GDP, life-expectancy)

River(name,origin,lenth)

City(name, country, population) GDP and population in million

i) Find all countries whose GDP is greater than \$400 billion but less than \$1 trillion.

ii) List the life expectancy in countries that have river originating in them

iii) Find all cities that are either in china or whose population is less than 2 million.

iv) List all cities which are not in india.

```
SQL> select * from country;
NAME                CONTINENT                POPULATION                GDP
-----
LIFE_EXPECTANCY
-----
india                asia                1210000000  2.2600E+12
80
Bnagladesh          asia                1210000000  1.0000E+12
70

SQL> select * from country where GDP>400000000000 and GDP<1000000000000;
no rows selected
```

```
SQL> select life_expectancy from country where name in (select origin from river);
LIFE_EXPECTANCY
-----
80
```

```
SQL> select * from city where country = 'Bnagladesh' or population<2000000;
NAME                COUNTRY                POPULATION
-----
madurai            india                1560000
dhaKA              bangladesh          1340000
```

```
SQL>
SQL> select * from city where country = 'india';
NAME                COUNTRY                POPULATION
-----
madurai            india                1560000
```

EXP 7: COMPLEX SQL QUERY-II

C2. Employee(employee_no,company_name, salary)

i)The employee_no who is getting the lowest salary. The total salary of each company.

ii)The company which has the highest number of employees.

iii)The employee whose salary is higher than the average salary of ABC corporation.

iv)The employee whose salary is higher than the average salary of their company.

```
SQL> select * from Employee6;
```

EMPNO	COMP_NAME	SALARY
1	A	10000
2	A	8000
3	B	12000
4	B	6000

```
SQL> select empno from Employee6 where salary =(select min(salary) from Employee6);
```

EMPNO
4

```
SQL> select comp_name,sum(salary) from Employee6 group by comp_name;
```

COMP_NAME	SUM(SALARY)
A	18000
B	18000

```
SQL> select comp_name from Employee6 group by comp_name having count(empno)>=all(select count(empno) from Employee6 group by comp_name);
```

COMP_NAME
A
B

```
SQL> select empno from Employee6 where salary > (select avg (salary) from Employee6 where comp_name ='A');
```

EMPNO
1
3

```
SQL> select A.empno from Employee6 A where salary > (select avg(salary) from Employee6 B where A.comp_name =B.comp_name);
```

EMPNO
1
3

EXP 7: COMPLEX SQL QUERY-II

C3. Consider the following relations of BART system

Stop(stopid, name)

Directed Route(routenumber, name)

RouteStop(routenumber,stopid,rank)

select * from stop;

STOPID	NAME
1	sakthi
2	def
5	daly city
3	ghi
6	jeeva
4	berkeley

select * from directedroute;

ROUTENO	NAME
4555	yellow west
4666	blue west
4777	red north

select * from routestop;

ROUTENO	STOPID	RANK
4777	2	2
4555	1	1
4555	2	1
4666	4	3
4777	3	2
4666	3	3
4666	5	3

1)How many stops are there on the yellow west route.

select count(stopid) from routestop where routeno = (select routeno from directedroute where name='yellow west');

COUNT(STOPID)
2

EXP 7: COMPLEX SQL QUERY-II

2)List the stops on red north in alphabetical order

select name from stop where stopid in (select stopid from routestop where routeno=(select routeno from directedroute where name='red north')) order by name ;

NAME
def
ghi

3)List the last stop on blue west

select name,stopid from stop where stopid in (select max(stopid) from routestop where routeno in(select routeno from directedroute where name='blue west')) ;

NAME	STOPID
daly city	5

4) List the route numbers which connects Berkeley and daly city.

select distinct routeno from routestop where stopid in (select stopid from stop where name in ('berkeley','daly city'));

ROUTENO
4666

5) Find the second stop on blue west route.

select name from stop where stopid=(select stopid from (select row_number()
OVER (ORDER BY stopid ASC) AS rownumber, stopid from routestop where
routeno = (select routeno from directedroute where name='blue west')) where
rownumber=2) ;

NAME
berkeley

EXP 7: COMPLEX SQL QUERY-II