LAB REPORT

CSE – 4508

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Task 1

In task 1, we have to create 2 different tablespaces and create objects (tables) inside them. Then, we will have to move table from one tablespace to another.

At first, we need to log in as an SYS user.

```
conn sys as sysdba;
```

Now, we will create a tablespace named myspace1 using following command.

```
create tablespace myspace1
datafile '\ORACLEXE\APP\ORACLE\ORADATA\XE\myspace1.dbf' size 50M
extent management local autoallocate;
```

Now we will create user in the created tablespace.

```
create user karayel
identified by test123
default tablespace myspace1;
```

Now we will create 4 tables and give them some random attributes.

```
create table t1
(id number,
name varchar2(20)) tablespace myspace1;

create table t2
(id number,
name varchar2(20)) tablespace myspace1;

create table t3
(id number,
name varchar2(20)) tablespace myspace1;

create table t4
(id number,
name varchar2(20)) tablespace myspace1;
```

After that we'll monitor the location of T4 before moving it to another tablespace.

```
TABLE_NAME                     TABLESPACE_NAME
------------------------------ ------------------------------
T4                             MYSPACE1
```

Then we'll create another tablespace and move T4 to the tablespace.

```
create tablespace myspace12
datafile '\ORACLEXE\APP\ORACLE\ORADATA\XE\myspace12.dbf' size 50M
extent management local autoallocate;


alter table t4 move tablespace myspace12;
```

```
TABLE_NAME                     TABLESPACE_NAME
------------------------------ ------------------------------
T4                             MYSPACE12
```

As we can see, we have successfully moved T4 to another created tablespace.

Task 2

In task 2, we have to create a table in SQL. We will insert data in the table. Then we'll run SQL command on the table to check if it works.

At first we'll create an Employee table

```
create table Employee(
   id INT PRIMARY KEY,
   name VARCHAR2(20),
   phoneNumber VARCHAR2(11) UNIQUE,
   CONSTRAINT chk_phone CHECK(phoneNumber like '0%' AND LENGTH(phoneNumber) = 11)
);
```

Now, we will insert 12 data in the table

```
insert into Employee values(401, 'Mina Mina' , '01234567891');
insert into Employee values(402, 'Mimi' , '01234567990');
insert into Employee values(403, 'Karayel' , '01234337990');
insert into Employee values(404, 'Margery' , '01222567891');
insert into Employee values(405, 'Doraemon' , '01235567990');
insert into Employee values(406, 'Hattori' , '01234667891');
insert into Employee values(407, 'Nikki' , '01234568990');
insert into Employee values(408, 'Shinjo' , '01243567891');
insert into Employee values(409, 'Doraemi' , '09034567891');
insert into Employee values(410, 'Pippo' , '01000567891');
insert into Employee values(411, 'Riruru' , '01200567891');
insert into Employee values(412, 'Pupy' , '01230067891');
```

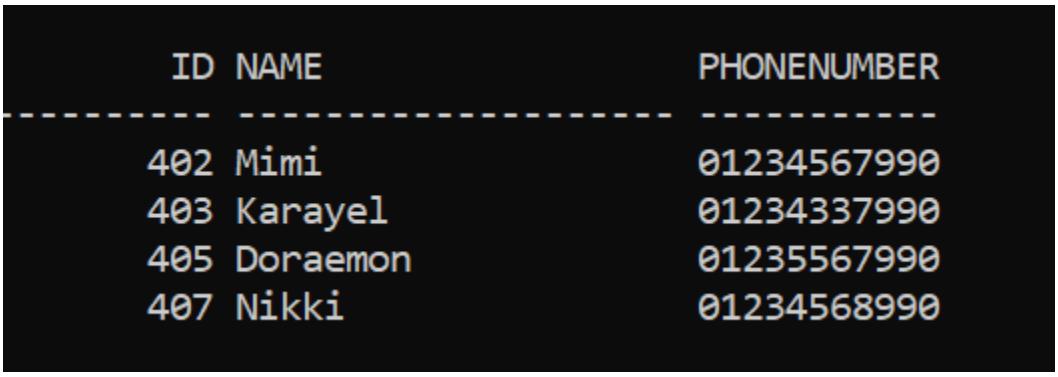
This is our table –

ID	NAME	PHONENUMBER
401	Mina Mina	01234567891
402	Mimi	01234567990
403	Karayel	01234337990
404	Margery	01222567891
405	Doraemon	01235567990
406	Hattori	01234667891
407	Nikki	01234568990
408	Shinjo	01243567891
409	Doraemi	09034567891
410	Pippo	01000567891
411	Riruru	01200567891
412	Pupy	01230067891

Now, we need to write the query statement to get employees those have phone number ending with ‘990’. For that we need to use the LIKE operator

```
select * from Employee
where phoneNumber like '%990';
```

Result of the query is given below-



ID	NAME	PHONENUMBER
402	Mimi	01234567990
403	Karayel	01234337990
405	Doraemon	01235567990
407	Nikki	01234568990

As we can see, we have successfully filtered the numbers ending with ‘990’.

Task 3

In task 3, we have to create 2 tables and test join operations among them.

At first we'll create 2 tables and insert data in the tables.

```
create table left_(
   id INT PRIMARY KEY,
   name VARCHAR2(20),
   salary VARCHAR2(10)
);

create table right_(
   id INT PRIMARY KEY,
   name VARCHAR2(20),
   position VARCHAR2(10)
);

insert into left_ values(401, 'Mina Mina' , '100');
insert into left_ values(402, 'Mimi' , '200');
insert into left_ values(403, 'Karayel' , '500');
insert into left_ values(404, 'Margery' , '300');
insert into left_ values(405, 'Doraemon' , '1000');

insert into right_ values(404, 'Margery' , 'low');
insert into right_ values(405, 'Doraemon' , 'high');
insert into right_ values(406, 'Shishimanu' , 'very high');
insert into right_ values(407, 'Perman' , 'medium');
insert into right_ values(408, 'Hero' , 'average');
```

This is our first table

ID	NAME	SALARY
401	Mina Mina	100
402	Mimi	200
403	Karayel	500
404	Margery	300
405	Doraemon	1000

This is our second table

ID	NAME	POSITION
404	Margery	low
405	Doraemon	high
406	Shishimanu	very high
407	Perman	medium
408	Hero	average

Now, we'll run the left outer join operation

```
SELECT *
FROM left_
LEFT JOIN right_ ON left_.id = right_.id;
```

```
    ID NAME                SALARY      ID NAME                POSITION
------ ------------------- ---------- ---------- ------------------- ----------
   404 Margery             300            404 Margery             low
   405 Doraemon            1000           405 Doraemon            high
   403 Karayel             500
   402 Mimi                200
   401 Mina Mina           100
```

Then, we'll try the right outer join operation

```
SELECT *
FROM left_
RIGHT JOIN right_ ON left_.id = right_.id;
```

```
   ID NAME                SALARY      ID NAME                POSITION
------ ------------------- ---------- ---------- ------------------- ----------
  404 Margery             300            404 Margery             low
  405 Doraemon            1000           405 Doraemon            high
                                         408 Hero                average
                                         407 Perman              medium
                                         406 Shishimanu          very high
```

Finally, we will check if the natural join works here

```
SELECT *
FROM left_
NATURAL JOIN right_ ;
```

```
      ID NAME                 SALARY     POSITION
-------- -------------------- ---------- ----------
     404 Margery              300        low
     405 Doraemon             1000       high
```