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3dotsss advdb Task 03

Creating composite objects

- a) Create the required objects to create the customer object table.
- b) Create the customer table and populate it with the data from the csv file. But you have to make the following modifications before inserting the data: The name of the first customer should be your own name. The name of the other 4 customers should be your friends.
- c) Write SQL statements to find all customers outside of Dhaka.

Successful creation of the objects customer object table.

The screenshot displays the Oracle SQL Developer interface with the following components:

- Connections Panel:** Shows the 'LOCAL_ORACLE' connection selected under 'Oracle Connections'.
- SQL Worksheet:** Contains the following SQL script:

```
--task3
create or replace type address_typ as object(
    street varchar2(32),
    thana varchar2(32),
    district varchar2(32),
    division varchar2(32)
);
create type PhoneList_varray as varray(3) of varchar2(18);

create or replace type customer_typ as object (
    CustNo NUMBER,
    CustName varchar2(200),
    address address_typ,
    phone_list phoneList_varray
);

create table customers of customer_typ;
```
- Script Output Panel:** Shows the execution results:

```
Type ADDRESS_TYP compiled

Type PHONELIST_VARRAY compiled

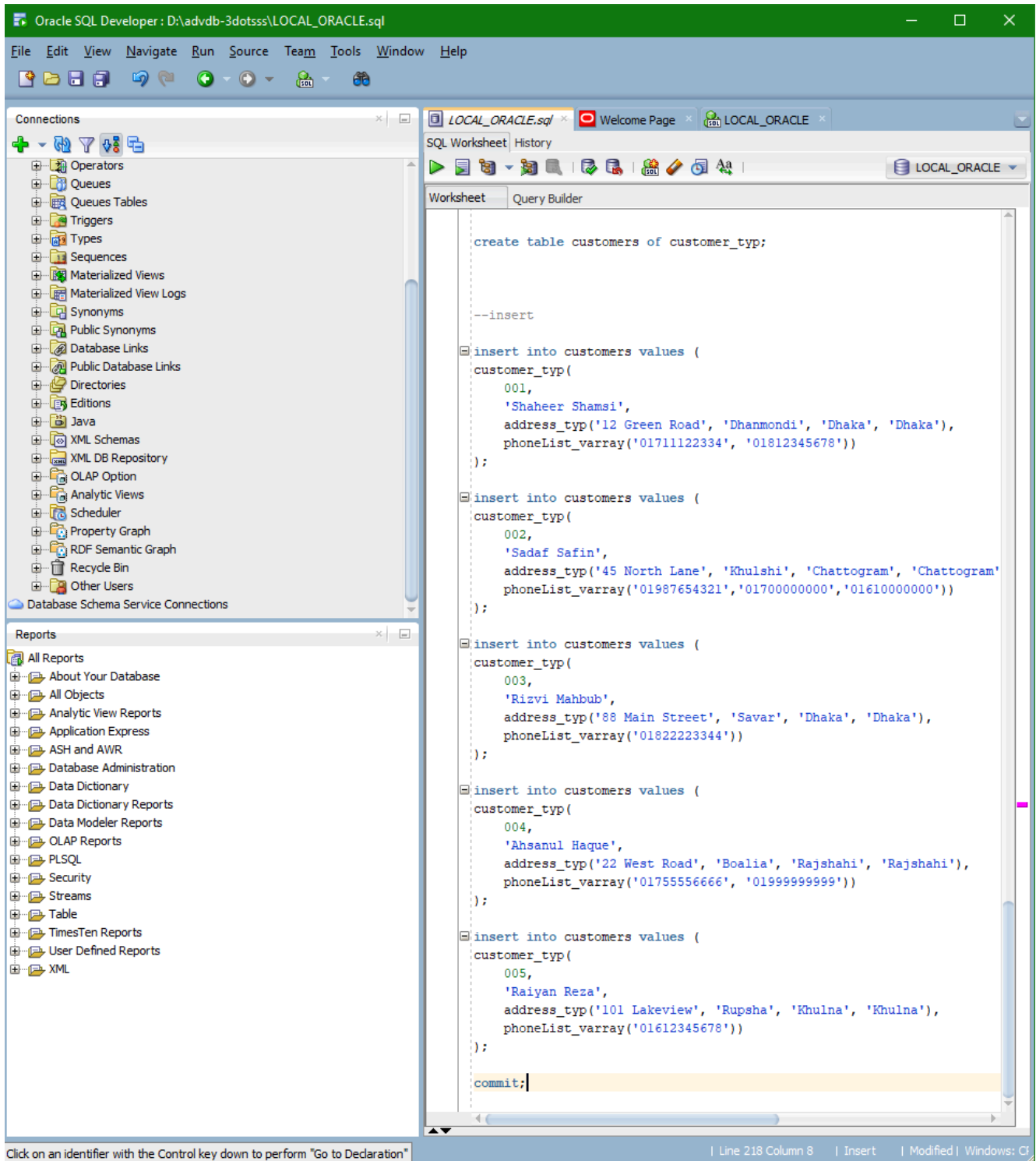
Type CUSTOMER_TYP compiled

Table CUSTOMERS created.
```
- Reports Panel:** Lists various report categories like 'All Reports', 'About Your Database', etc.
- Status Bar:** Indicates 'Line 154 Column 1 | Insert | Modified | Windows: C'.

Click on an identifier with the Control key down to perform "Go to Declaration"

Successful insertions along with the insert statements:

insert statements



Successful insertions into customers table:

The screenshot displays the Oracle SQL Developer interface with the following components:

- Connections:** A tree view on the left showing database objects like Operators, Queues, Queues Tables, Triggers, Types, Sequences, Materialized Views, Materialized View Logs, Synonyms, Public Synonyms, Database Links, Public Database Links, Directories, Editions, Java, XML Schemas, XML DB Repository, OLAP Option, Analytic Views, Scheduler, Property Graph, RDF Semantic Graph, Recycle Bin, and Other Users.
- SQL Worksheet:** The main area showing a SQL script with three insert statements into the customers table. The script is as follows:

```
insert into customers values (
customer_typ(
003,
'Rizvi Mahbub',
address_typ('88 Main Street', 'Savar', 'Dhaka', 'Dhaka'),
phoneList_varray('01822223344'))
);

insert into customers values (
customer_typ(
004,
'Ahsanul Haque',
address_typ('22 West Road', 'Boalia', 'Rajshahi', 'Rajshahi'),
phoneList_varray('01755556666', '01999999999'))
);

insert into customers values (
customer_typ(
005,
'Raiyan Reza',
address_typ('101 Lakeview', 'Rupsha', 'Khulna', 'Khulna'),
phoneList_varray('01612345678'))
);

commit;
```
- Script Output:** The bottom panel showing the execution results:

```
1 row inserted.

1 row inserted.

1 row inserted.

1 row inserted.

1 row inserted.

Commit complete.
```
- Status Bar:** At the bottom, it shows "Line 218 Column 8 | Insert | Modified | Windows: C".

The select statement from c.

SQL Query and Query Result for customers outside of Dhaka

The screenshot shows the Oracle SQL Developer interface. The main window displays a SQL query in the 'Worksheet' tab. The query is as follows:

```
commit;

--select query outside dhaka
select cust.custno,
       cust.address:street as street,
       cust.address:thana as thana,
       cust.address:district as district,
       cust.address:division as division,
       cust.phone_list as phone
from customers cust
where cust.address.district != 'Dhaka';
```

The 'Query Result' tab shows the results of the query. The results are displayed in a table with the following columns: CUSTNO, STREET, THANA, DISTRICT, DIVISION, and PHONE. The results are as follows:

CUSTNO	STREET	THANA	DISTRICT	DIVISION	PHONE
1	2 45 North Lane Khulshi	Chattogram	Chattogram		"shaheer-shamsi_2222127042"."PHONELIST_VARRAY"('01987654321', '01700000000', '01610000000')
2	4 22 West Road Boalia	Rajshahi	Rajshahi		"shaheer-shamsi_2222127042"."PHONELIST_VARRAY"('01755556666', '01999999999')
3	5 101 Lakeview Rupsha	Khulna	Khulna		"shaheer-shamsi_2222127042"."PHONELIST_VARRAY"('01612345678')
4	2 45 North Lane Khulshi	Chattogram	Chattogram		"shaheer-shamsi_2222127042"."PHONELIST_VARRAY"('01987654321', '01700000000', '01610000000')
5	4 22 West Road Boalia	Rajshahi	Rajshahi		"shaheer-shamsi_2222127042"."PHONELIST_VARRAY"('01755556666', '01999999999')
6	5 101 Lakeview Rupsha	Khulna	Khulna		"shaheer-shamsi_2222127042"."PHONELIST_VARRAY"('01612345678')

SQL Worksheet:

--task3

```
create or replace type address_typ as object(  
    street varchar2(32),  
    thana varchar2(32),  
    district varchar2(32),  
    division varchar2(32)  
);  
create type PhoneList_varray as varray(3) of varchar2(18);
```

```
create or replace type customer_typ as object (  
CustNo NUMBER,  
CustName varchar2(200),  
address address_typ,  
phone_list phoneList_varray  
);
```

```
create table customers of customer_typ;
```

--insert

```
insert into customers values (  
customer_typ(  
    001,  
    'Shaheer Shamsi',  
    address_typ('12 Green Road', 'Dhanmondi', 'Dhaka', 'Dhaka'),  
    phoneList_varray('01711122334', '01812345678'))  
);
```

```
insert into customers values (  
customer_typ(  
    002,  
    'Sadaf Safin',  
    address_typ('45 North Lane', 'Khulshi', 'Chattogram',  
'Chattogram'),  
    phoneList_varray('01987654321', '01700000000', '01610000000'))  
);
```

```

insert into customers values (
customer_typ(
    003,
    'Rizvi Mahbub',
    address_typ('88 Main Street', 'Savar', 'Dhaka', 'Dhaka'),
    phoneList_varray('01822223344'))
);

insert into customers values (
customer_typ(
    004,
    'Ahsanul Haque',
    address_typ('22 West Road', 'Boalia', 'Rajshahi', 'Rajshahi'),
    phoneList_varray('01755556666', '01999999999'))
);

insert into customers values (
customer_typ(
    005,
    'Raiyan Reza',
    address_typ('101 Lakeview', 'Rupsha', 'Khulna', 'Khulna'),
    phoneList_varray('01612345678'))
);

commit;

--select query outside dhaka
select cust.custno,
       cust.address.street as street,
       cust.address.thana as thana,
       cust.address.district as district,
       cust.address.division as division,
       cust.phone_list as phone
from customers cust
where cust.address.district != 'Dhaka';

```