

Objective: The objective of this lab is to become more familiar with the CREATE TYPE AS OBJECT statement.

Instructions:

Step 1: Create a type as object of your choosing with at least 4 attributes and one member function.

Step 2: Create a table that contains that object type.

Step 3: Insert some values into the table.

Step 4: Retrieve some values from the table and use the member function.\

Synopsis:

Our object () has 4 attributes ; and as member function which returns the formatted email in a custom string format to store the data of any incoming employees to an organization.

Step 1: Create a type as object of your choosing with at least 4 attributes and one member function.

Screenshot 1:

```
Connected to:
Oracle Database 21c Express Edition Release 21.0.0.0.0 - Production
Version 21.3.0.0.0

SQL> CREATE TYPE FormatEmail AS OBJECT (
  2  FirstName VARCHAR(20),
  3  LastName VARCHAR(20),
  4  Role VARCHAR(20),
  5  OfficeLocation VARCHAR(25),
  6  MEMBER FUNCTION FormattedEmail RETURN VARCHAR
  7 );
  8 /

Type created.

SQL>
```

Screenshot 2:

```
SQL> CREATE TYPE BODY FormatEmail AS
  2  MEMBER FUNCTION FormattedEmail RETURN VARCHAR IS
  3  BEGIN
  4  RETURN FirstName || LastName || '_' || Role || '-' ||
  5  OfficeLocation || '@' || 'db.com';
  6  END;
  7  END;
  8  /

Type body created.

SQL> _
```

Step 2: Create a table that contains that object type.

Screenshot 3:

```
SQL> CREATE TABLE Employeee (
  2  EmpNo INT,
  3  Email FormatEmail
  4  );
```

Table created.

```
SQL> _
```

Step 3: Insert some values into the table.

Screenshot 4:

```
SQL> INSERT INTO Employeee
  2  VALUES (1, FormatEmail('virat', 'kohli', 'it', 'tor'));
1 row created.

SQL> INSERT INTO Employeee
  2  VALUES (2, FormatEmail('rohit', 'sharma', 'hr', 'ptbo'));
1 row created.

SQL> INSERT INTO Employeee
  2  VALUES (3, FormatEmail('rishabh', 'pant', 'it', 'bc'));
1 row created.

SQL> INSERT INTO Employeee
  2  VALUES (4, FormatEmail('ms', 'dhoni', 'sales', 'tor'));
1 row created.
```

Step 4: Retrieve some values from the table and use the member function.

Screenshot 5:

```
SQL> SELECT EmpNo, E.Email.FormattedEmail() AS CompanyEmail
  2  FROM Employeee E order by EmpNo asc;
```

```

      EMPNO
-----
COMPANYEMAIL
-----
          1
viratkohli_it-tor@db.com

          2
rohitsharma_hr-ptbo@db.com

          3
rishabhpant_it-bc@db.com

      EMPNO
-----
COMPANYEMAIL
-----
          4
msdhoni_sales-tor@db.com
```

In this manner, we have been able to store the email addresses of four new employees each joining the organization using **FormatEmail** as an object with four attributes and one member function **FormattedEmail()**.

Attribution:

*These assignments were completed by **Ravi Chandan Pandi**, and they represent his original work completed for academic purposes during his studies and self-learning purposes.*

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