

Procedure GetFirstAndLastNames

As

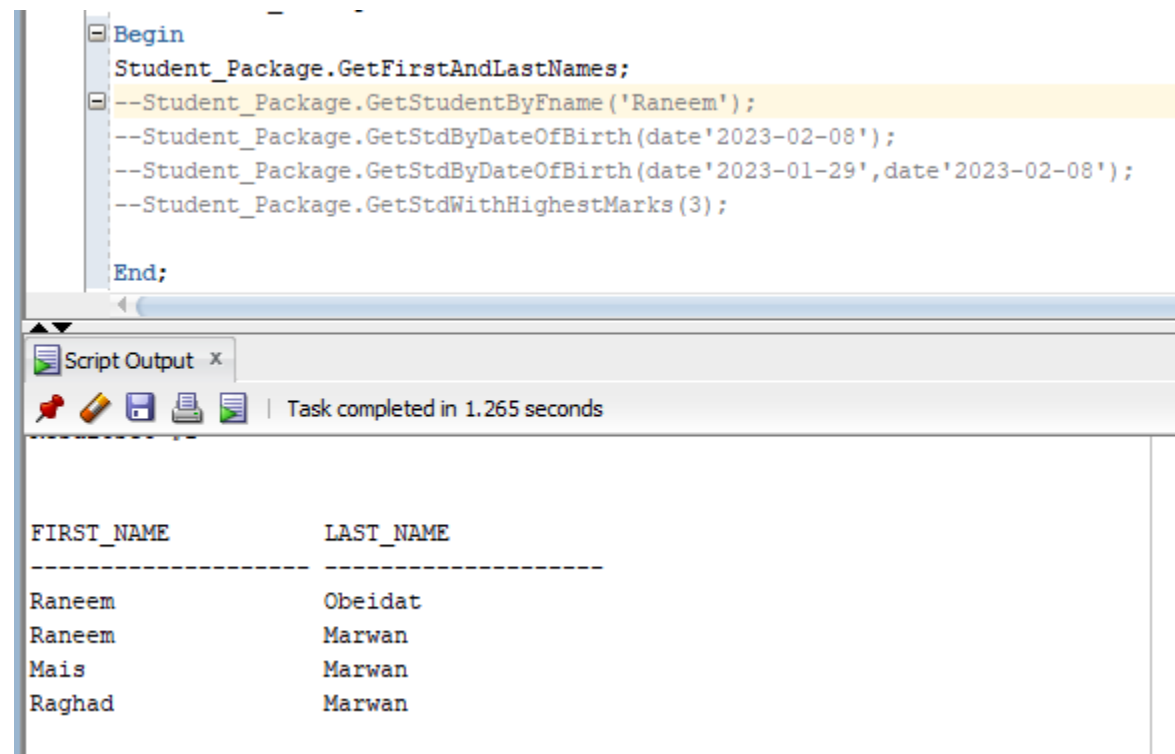
```
curs_All SYS_REFCURSOR;
```

Begin

```
open curs_All for select First_Name ,last_name from std_Student;
```

```
dbms_sql.return_result(curs_All);
```

End GetFirstAndLastNames;



The screenshot shows a SQL IDE with a script editor and a script output window. The script editor contains the following PL/SQL code:

```
Begin
Student_Package.GetFirstAndLastNames;
--Student_Package.GetStudentByFname('Raneem');
--Student_Package.GetStdByDateOfBirth(date'2023-02-08');
--Student_Package.GetStdByDateOfBirth(date'2023-01-29',date'2023-02-08');
--Student_Package.GetStdWithHighestMarks(3);
End;
```

The script output window shows the following message:

Task completed in 1.265 seconds

The output window also displays the following table:

FIRST_NAME	LAST_NAME
Raneem	Obeidat
Raneem	Marwan
Mais	Marwan
Raghad	Marwan

2. procedure GetStudentByFname(fname in std_Student.First_Name%type)

As

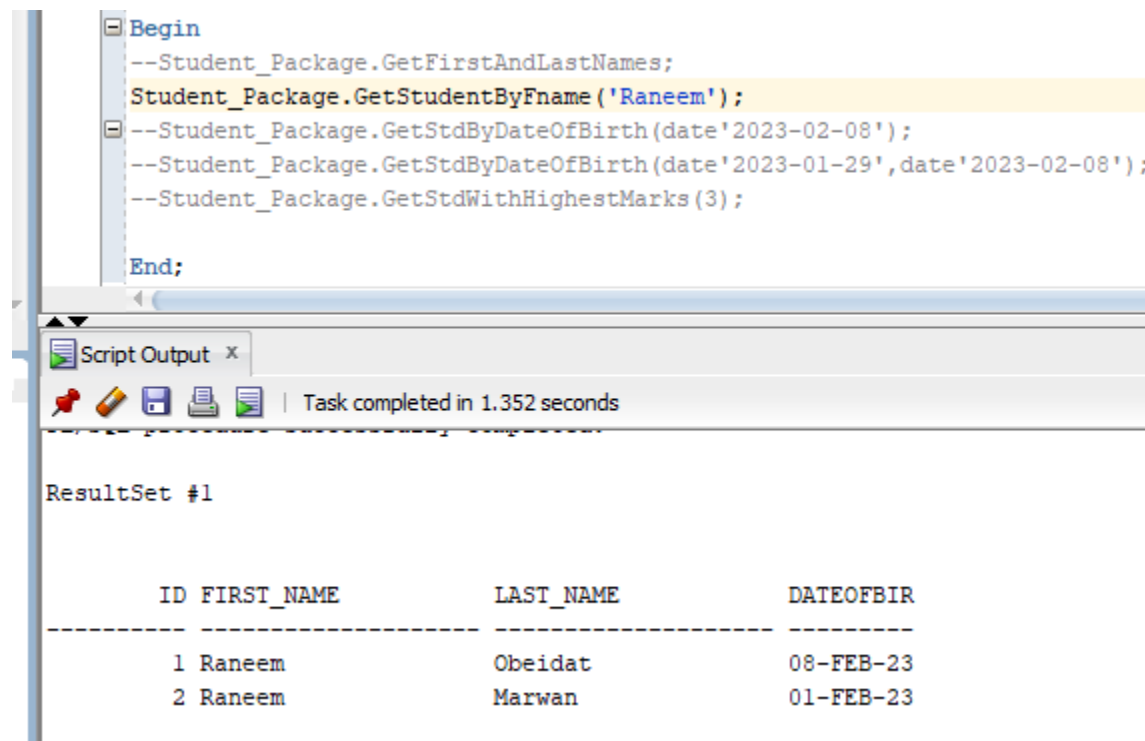
```
curs_item SYS_REFCURSOR;
```

Begin

```
open curs_item for select * from std_Student where lower(First_Name)=fname or upper  
(First_Name)=fname or INITCAP(First_Name)=fname;
```

```
dbms_sql.return_result(curs_item);
```

End GetStudentByFname;



The screenshot displays the Oracle SQL Developer environment. The top pane shows a PL/SQL script with the following content:

```
Begin  
--Student_Package.GetFirstAndLastNames;  
Student_Package.GetStudentByFname('Raneem');  
--Student_Package.GetStdByDateOfBirth(date'2023-02-08');  
--Student_Package.GetStdByDateOfBirth(date'2023-01-29',date'2023-02-08');  
--Student_Package.GetStdWithHighestMarks(3);  
End;
```

The bottom pane, titled "Script Output", shows the execution results. It indicates that the task was completed in 1.352 seconds. Below this, a "ResultSet #1" is displayed as a table with the following data:

ID	FIRST_NAME	LAST_NAME	DATEOFBIR
1	Raneem	Obeidat	08-FEB-23
2	Raneem	Marwan	01-FEB-23

3. procedure GetStdByDateOfBirth(BirthDate in std_Student.DateOfBirth%type)

As

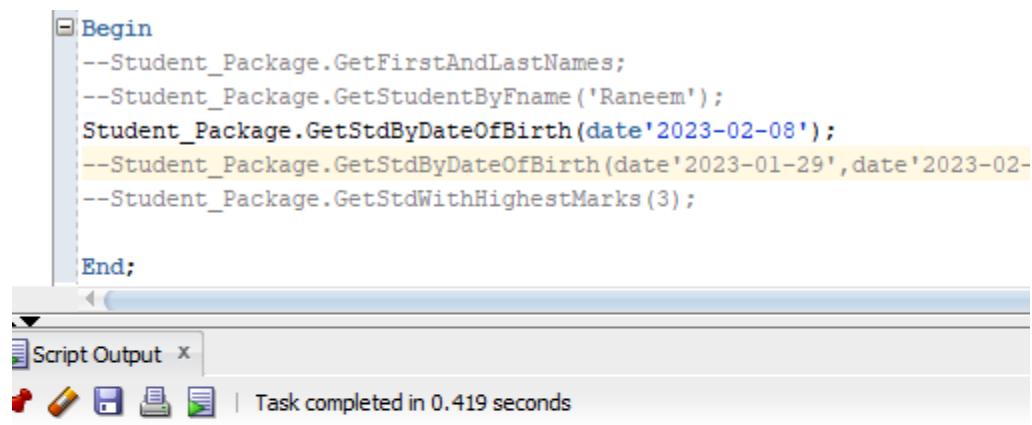
curs_item SYS_REFCURSOR;

Begin

open curs_item for select * from std_Student where DateOfBirth = BirthDate;

dbms_sql.return_result(curs_item);

End GetStdByDateOfBirth;



The screenshot shows a SQL Developer script editor window. The script contains the following PL/SQL code:

```
Begin
--Student_Package.GetFirstAndLastNames;
--Student_Package.GetStudentByFname('Raneem');
Student_Package.GetStdByDateOfBirth(date'2023-02-08');
--Student_Package.GetStdByDateOfBirth(date'2023-01-29',date'2023-02-
--Student_Package.GetStdWithHighestMarks(3);

End;
```

Below the script editor, the 'Script Output' window is visible, showing the message: 'Task completed in 0.419 seconds'.

L/SQL procedure successfully completed.

resultSet #1

ID	FIRST_NAME	LAST_NAME	DATEOFBIR
1	Raneem	Obeidat	08-FEB-23

4. procedure GetStdByInterval(FirstDate in std_Student.DateOfBirth%type , EndDate in std_Student.DateOfBirth%type)

As

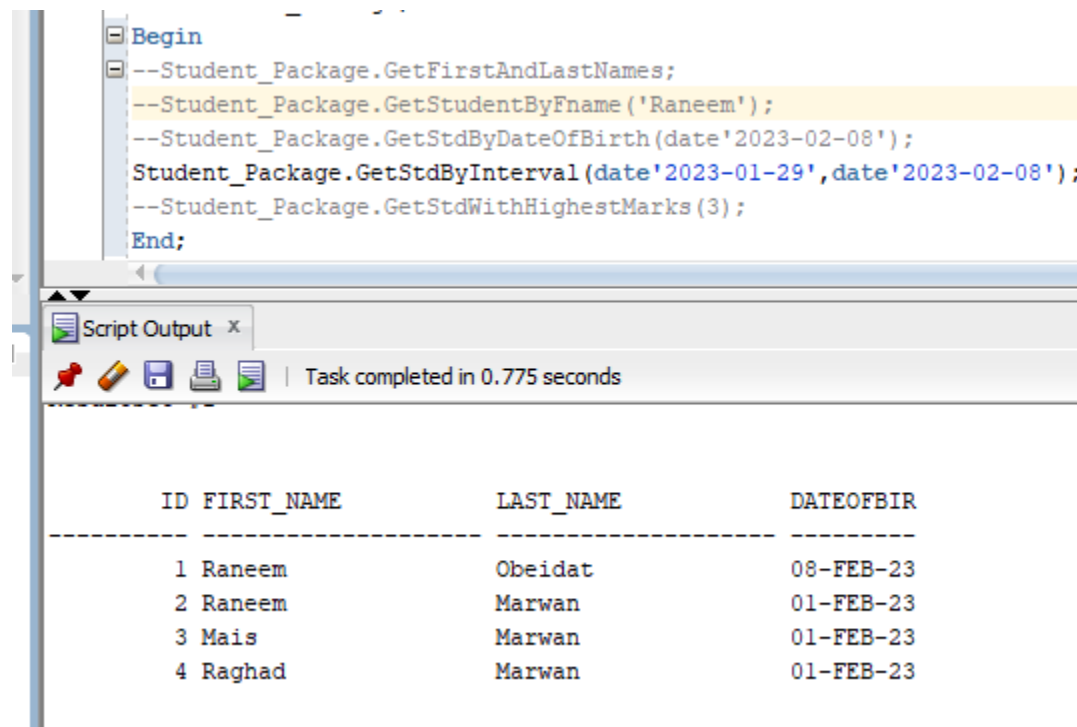
curs_item SYS_REFCURSOR;

Begin

open curs_item for select * from std_Student where DateOfBirth >= FirstDate and DateOfBirth <=EndDate;

dbms_sql.return_result(curs_item);

End GetStdByInterval;



The screenshot displays the Oracle SQL Developer environment. The top pane shows a PL/SQL script with the following code:

```
Begin
--Student_Package.GetFirstAndLastNames;
--Student_Package.GetStudentByFname ('Raneem');
--Student_Package.GetStdByDateOfBirth (date'2023-02-08');
Student_Package.GetStdByInterval (date'2023-01-29',date'2023-02-08');
--Student_Package.GetStdWithHighestMarks (3);
End;
```

The bottom pane, titled "Script Output", shows the execution results. It indicates that the task was completed in 0.775 seconds. Below this, a table of results is displayed:

ID	FIRST_NAME	LAST_NAME	DATEOFBIR
1	Raneem	Obeidat	08-FEB-23
2	Raneem	Marwan	01-FEB-23
3	Mais	Marwan	01-FEB-23
4	Raghad	Marwan	01-FEB-23

5. Procedure GetStdWithHighestMarks(num in int)

As

curs_item SYS_REFCURSOR;

Begin

open curs_item for select StudentCourse.markOfstd,std_Student.First_Name

from StudentCourse Inner Join std_Student on StudentCourse.StdID = std_Student.ID ORDER BY
markOfstd DESC FETCH FIRST num ROWS ONLY;

End GetStdWithHighestMarks;