Practical-3

Aim:

3.5 Write a PL/SQL Function (StoredProcedure) to retrieve all the student information whose branch is CSE and using java program display all selected records on console.
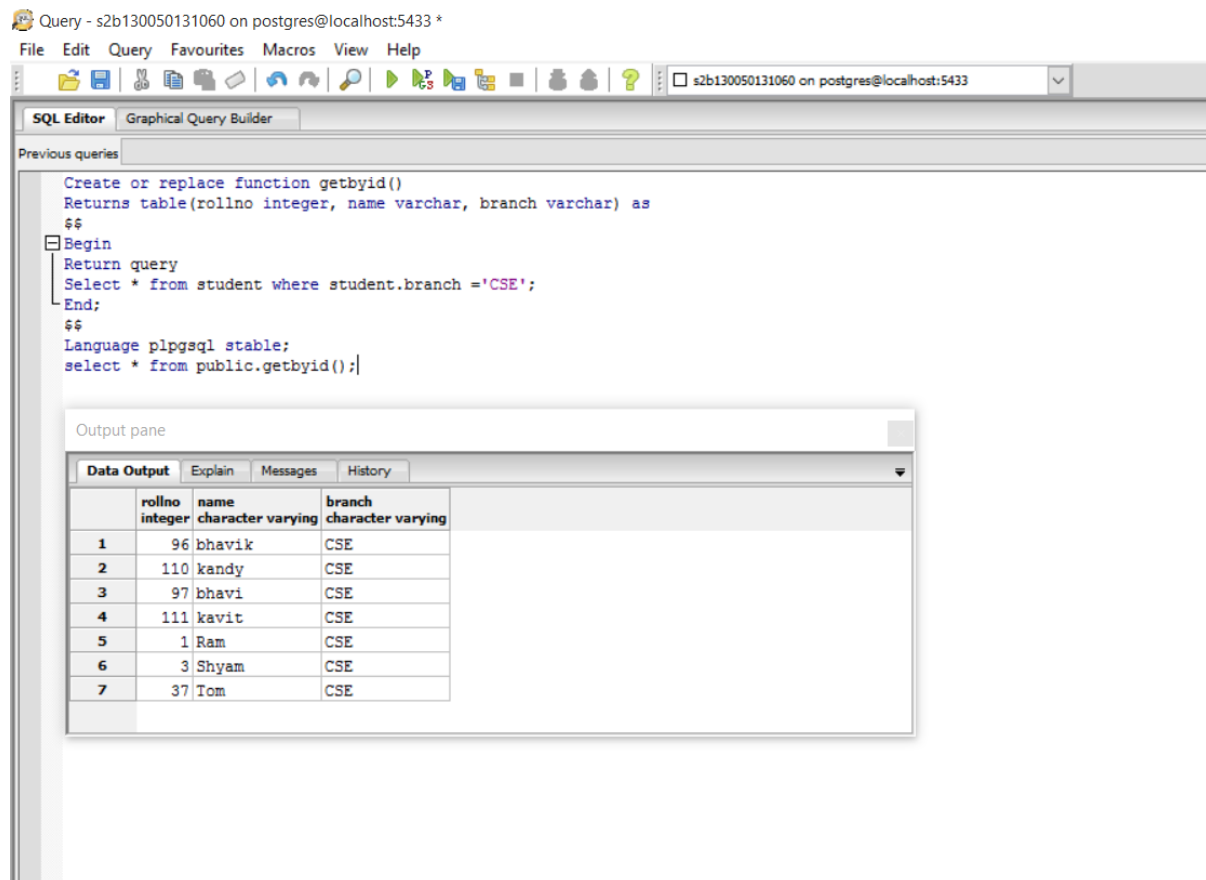
Description:

PostgreSQL **functions**, also known as Stored Procedures, allow you to carry out operations that would normally take several queries and round trips in a single function within the database. Functions allow database reuse as other applications can interact directly with your stored procedures instead of a middle-tier or duplicating code.

Where,

- **function-name** specifies the name of the function.

- [OR REPLACE] option allows modifying an existing function.

- The function must contain a **return** statement.

- **RETURN** clause specifies that data type you are going to return from the function. The **return_datatype** can be a base, composite, or domain type, or can reference the type of a table column.

- **function-body** contains the executable part.

- The AS keyword is used for creating a standalone function.

- **plpgsql** is the name of the language that the function is implemented in. Here, we use this option for PostgreSQL, it Can be SQL, C, internal, or the name of a user-defined procedural language. For backward compatibility, the name can be enclosed by single quotes.

Function:

Program code:

ConnectioDb.java

```java
import java.sql.*;
class ConnectionDb{
public Connection connect(String ip,String database){
Connection con=null;
try{
Class.forName("org.postgresql.Driver");

con=DriverManager.getConnection
("jdbc:postgresql://"+ip+":5433/"+database+"","postgres","1994");

System.out.println("Enrollment no:130050131060");
}
catch(ClassNotFoundException cse){
System.out.println(cse);
}
catch(SQLException se){
System.out.println(se);
}
return con;
}
}
```

function.java

```java
import java.sql.*;
class function{
public static void main(String args[]){
Connection con=null;
int rollno;
String name,branch;
try{
ConnectionDb cdb=new ConnectionDb();
con=cdb.connect("localhost","s2b130050131060");

Statement stmt=con.createStatement();
ResultSet rs=stmt.executeQuery("select * from public.getbyid();");

while(rs.next()){

rollno=rs.getInt("rollno");
name=rs.getString("name");
branch=rs.getString("branch");
System.out.println();
System.out.print(+rollno);
System.out.print("\t"+name);
System.out.print("\t"+branch);

}
}
catch(SQLException se){
System.out.println(se);
}
}
}
```
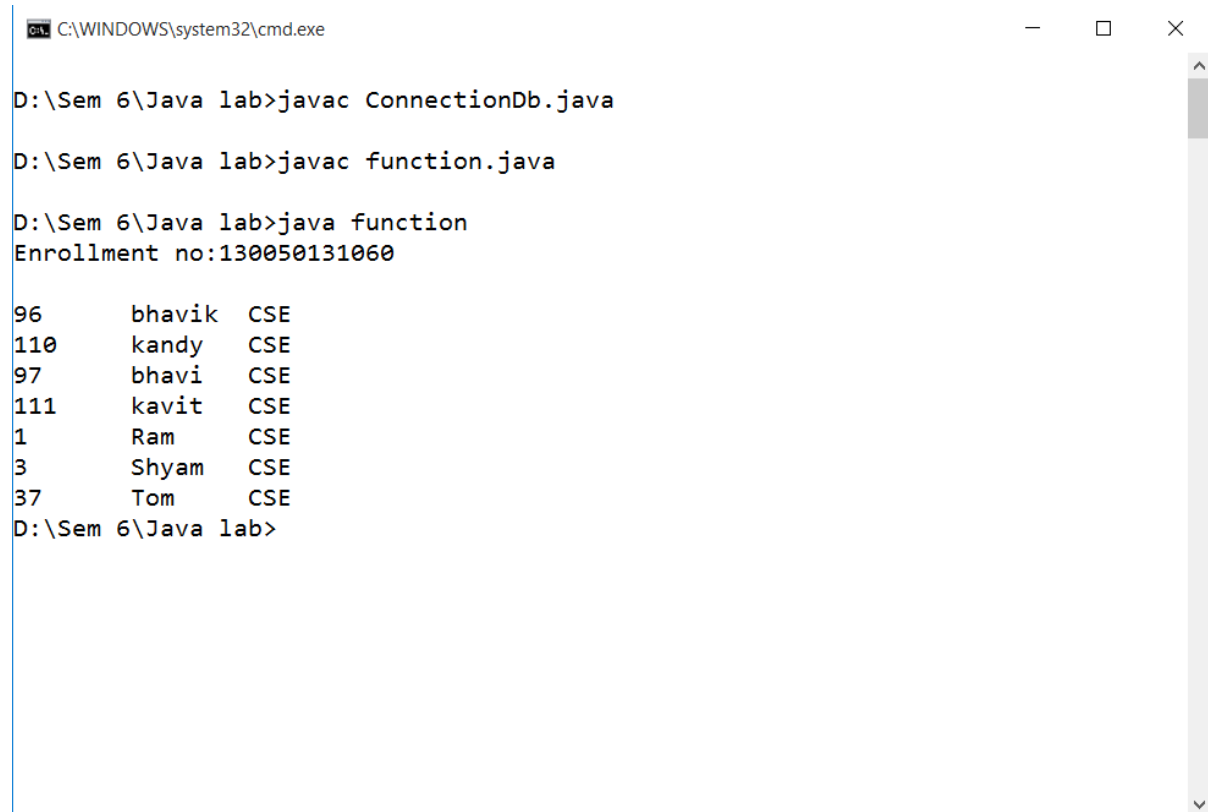
Output:

```
C:\WINDOWS\system32\cmd.exe                                    —    □    ×

D:\Sem 6\Java lab>javac ConnectionDb.java

D:\Sem 6\Java lab>javac function.java

D:\Sem 6\Java lab>java function
Enrollment no:130050131060

96       bhavik  CSE
110      kandy   CSE
97       bhavi   CSE
111      kavit   CSE
1        Ram     CSE
3        Shyam   CSE
37       Tom     CSE
D:\Sem 6\Java lab>
```