**Practical: 2.1**

**Aim:**

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.

**Program code:**

//STEP 1. Import required packages

**import** java**.**sql**.\*;**

public class ProcedureSelect2 **{**

// JDBC driver name and database URL

static final String JDBC\_DRIVER **=** "org.postgresql.Driver"**;**

static final String DB\_URL **=** "jdbc:postgresql://127.0.0.1:5432/s14008"**;**

// Database credentials

static final String USER **=** "postgres"**;**

static final String PASS **=** "gopiraj"**;**

public static void main**(**String**[]** args**)** **{**

Connection conn **=** **null;**

CallableStatement cStmt **=** **null;**

**try{**

//STEP 2: Register JDBC driver

Class**.**forName**(**JDBC\_DRIVER**);**

//STEP 3: Open a connection

System**.**out**.**println**(**"Connecting to a selected database..."**);**

conn **=** DriverManager**.**getConnection**(**DB\_URL**,** USER**,** PASS**);**

System**.**out**.**println**(**"Connected database successfully..."**);**

//STEP 4: Execute a query

System**.**out**.**println**(**"Enrollno: 140053131008"**);**

cStmt **=** conn**.**prepareCall**(**"{call studentnew1()}"**);**

cStmt**.**execute**();**

System**.**out**.**println**(**"Selected Data is:"**);**

System**.**out**.**println**();**

ResultSet rs **=** cStmt**.**getResultSet**();**

System**.**out**.**print**(**"ID:"**);**

System**.**out**.**print**(**"Name:"**);**

System**.**out**.**print**(**"Branch:"**);**

**while** **(**rs**.**next**())**

**{**

System**.**out**.**println**();**

System**.**out**.**print**(**rs**.**getInt**(**1**)+**"\t"**);**

System**.**out**.**print**(**rs**.**getString**(**2**)+**"\t"**);**

System**.**out**.**print**(**rs**.**getString**(**3**)+**"\t"**);**

System**.**out**.**println**();**

**}**

cStmt**.**close**();**

**}catch(**SQLException se**){**

//Handle errors for JDBC

se**.**printStackTrace**();**

**}catch(**Exception e**){**

//Handle errors for Class.forName

e**.**printStackTrace**();**

**}finally{**

//finally block used to close resources

**try{**

**if(**cStmt**!=null)**

conn.close();

cStmt.close();

}catch(SQLException se){

}// do nothing

try{

if(conn!=null)

conn.close();

}catch(SQLException se){

se.printStackTrace();

}//end finally try

}//end try

System.out.println("Goodbye!");

}//end main

}//end JDBCExample

**Procedure:**

-- Function: public.studentnew1()

-- DROP FUNCTION public.studentnew1();

CREATE OR REPLACE FUNCTION public.studentnew1()

RETURNS TABLE(rollno integer, name character varying, branch character varying) AS

$BODY$

DECLARE

r student%rowtype;

F\_br VARCHAR;

f\_id INTEGER;

f\_name VARCHAR;

BEGIN

RETURN QUERY

SELECT \* FROM student

WHERE student.branch='CSE';

RETURN;

END

$BODY$

LANGUAGE plpgsql VOLATILE

COST 100

ROWS 1000;

ALTER FUNCTION public.studentnew1()

OWNER TO postgres;

**Input Output:**

