**Practical: 3.5**

**Aim:**

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

**Program code:**

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

public class usingProcedure **{**

// 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/s2a130050131070"**;**

// Database credentials

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

static final String PASS **=** "12345"**;**

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: 130050131070"**);**

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

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("prgram completed");

}//end main

}//end

**Procedure:**

-- Function: student()

-- DROP FUNCTION student();

CREATE OR REPLACE FUNCTION student()

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

$BODY$

DECLARE

BEGIN

RETURN QUERY

SELECT \* FROM student1

WHERE student1.branch='CSE';

RETURN;

END

$BODY$

LANGUAGE plpgsql VOLATILE

COST 100

ROWS 1000;

ALTER FUNCTION student()

OWNER TO postgres;

**Input Output:**

