NEERAJ APPARI S073

Write a JDBC program to perform the CRUD operations.
(Statement/PreparedStatement)

1) Create a table having minimum 4 columns(int, string, float, one primary key)

(TableName: FirstNameRollNo eg. Soham01)

2) Insert 5 records (Take inputs from the user)

3) Update record based on given key value.

4) Delete record from table. (Take key value from the user)

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Practical - 3

Aim: Write a JDBC program to perform the CRUD operation (Statement / Prepared statement)

1) Create a table having minimum 4 colums (int, string, float, one primary key) (Table Name: first Name Roll No)
2) Insert 5 Records (Take inputs from the user)
3) Update record based on given key value
4) Delete record from table (Take key value from user)

Writeups

1) Connection - A connection with a specific database SQL statements are executed results are returned with the context of a connection
2) Driver Manager - The basic service for managing set of JDBC drivers
3) getConnection - It retrieves the connection object that produces Statement object
4) catch (Exception) - Java catch block is used to handle the Exception by declaring the type of exception with the parameter. The declared exception must be the parent class exception or generated exception type
5) getMessage() - The getMessage() method of Throwable class is used to return a detailed message of Throwable object which can also be null one can use this method to get the detail message of exception as a string value.
6) CreateStatement() - Creates a SQL Server statement to the database SQL statements without parameters are normally executed using Statement objects. If same SQL statement is executed

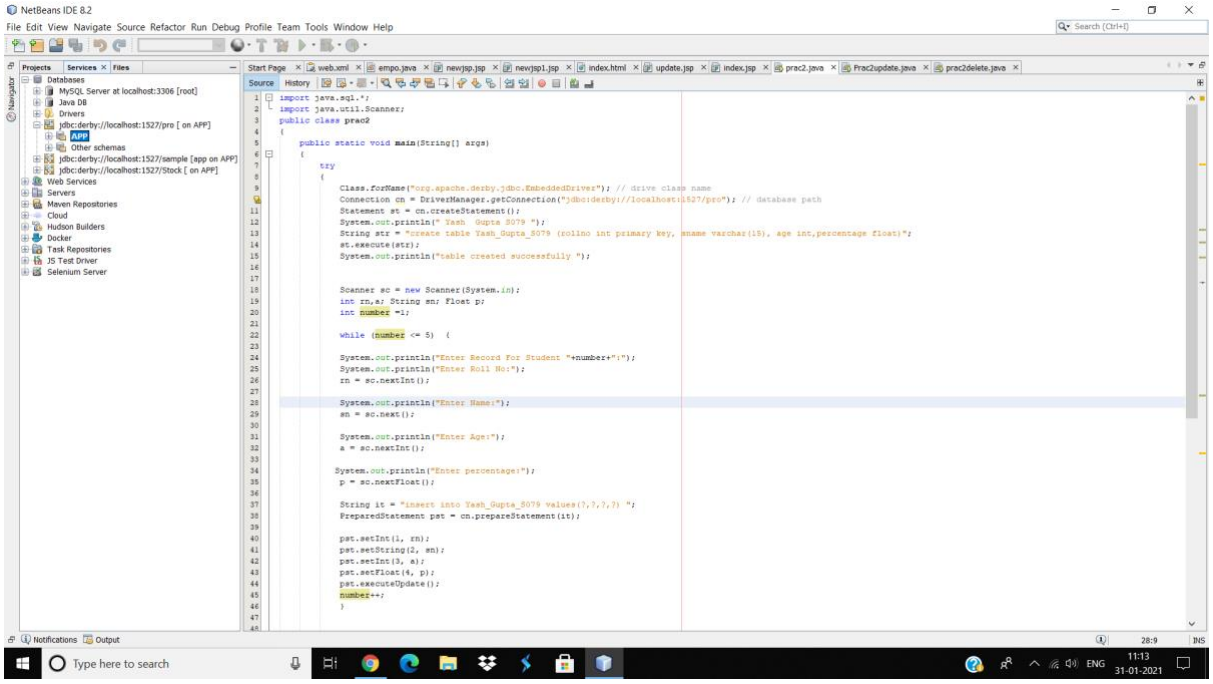
many time, it may be more efficient to use a prepared statement object.

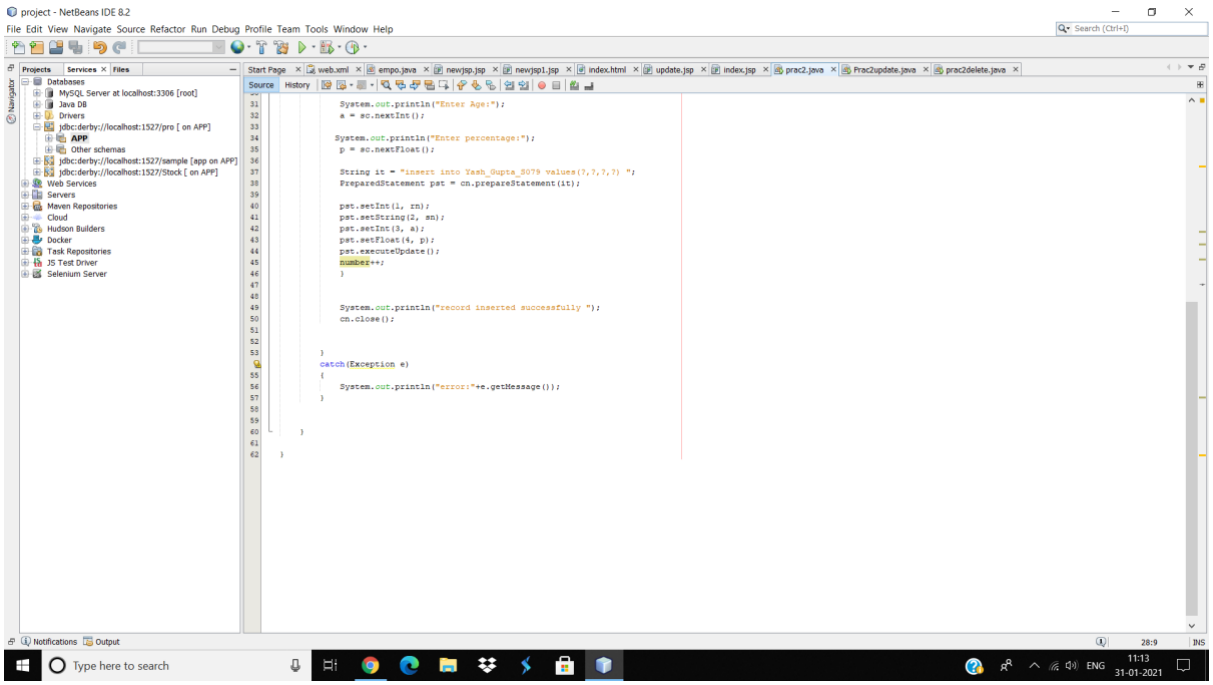
7) Prepared Statement - An object that represents a precompiled SQL statement is precompiled and stored in Prepared statement object. This object can be used to efficiently execute this statement multiple times
8) Insert -- Inserts new record into table
9) Update - It updates the record based on given key value
10) Delete - It deletes the record from table given by user.

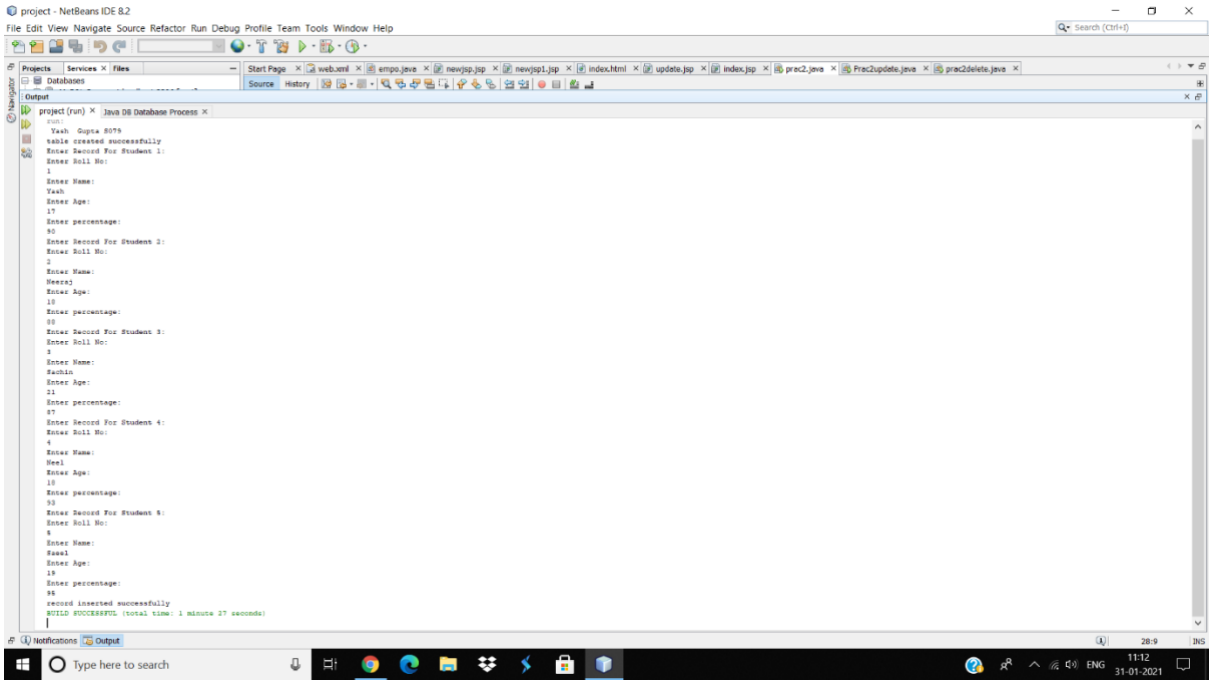
```
import java.sql.*;
import java.util.Scanner;
public class prac2
{
   public static void main(String[] args)
   {
      try
      {
         Class.forName("org.apache.derby.jdbc.EmbeddedDriver"); // drive class name
         Connection cn = DriverManager.getConnection("jdbc:derby://localhost:1527/pro");
// database path
         Statement st = cn.createStatement();
          System.out.println("  Neeraj Appari S073 ");
         String str = "create table Rahul_Jain_S125 (rollno int primary key, sname varchar(15),
age int,percentage float)";
         st.execute(str);
         System.out.println("table created successfully ");



         Scanner sc = new Scanner(System.in);
         int rn,a; String sn; Float p;
         int number =1;


         while (number <= 5)  {


         System.out.println("Enter Record For Student "+number+":");
         System.out.println("Enter Roll No:");
         rn = sc.nextInt();
```

```
   System.out.println("Enter Name:");
   sn = sc.next();

   System.out.println("Enter Age:");
   a = sc.nextInt();

  System.out.println("Enter percentage:");
   p = sc.nextFloat();

   String it = "insert into  Neeraj_Appari_S073 values(?,?,?,?) ";
   PreparedStatement pst = cn.prepareStatement(it);

   pst.setInt(1, rn);
   pst.setString(2, sn);
   pst.setInt(3, a);
   pst.setFloat(4, p);
   pst.executeUpdate();
   number++;
   }


   System.out.println("record inserted successfully ");
   cn.close();


}
catch(Exception e)
{
   System.out.println("error:"+e.getMessage());
```

```
    }

  }

}
```

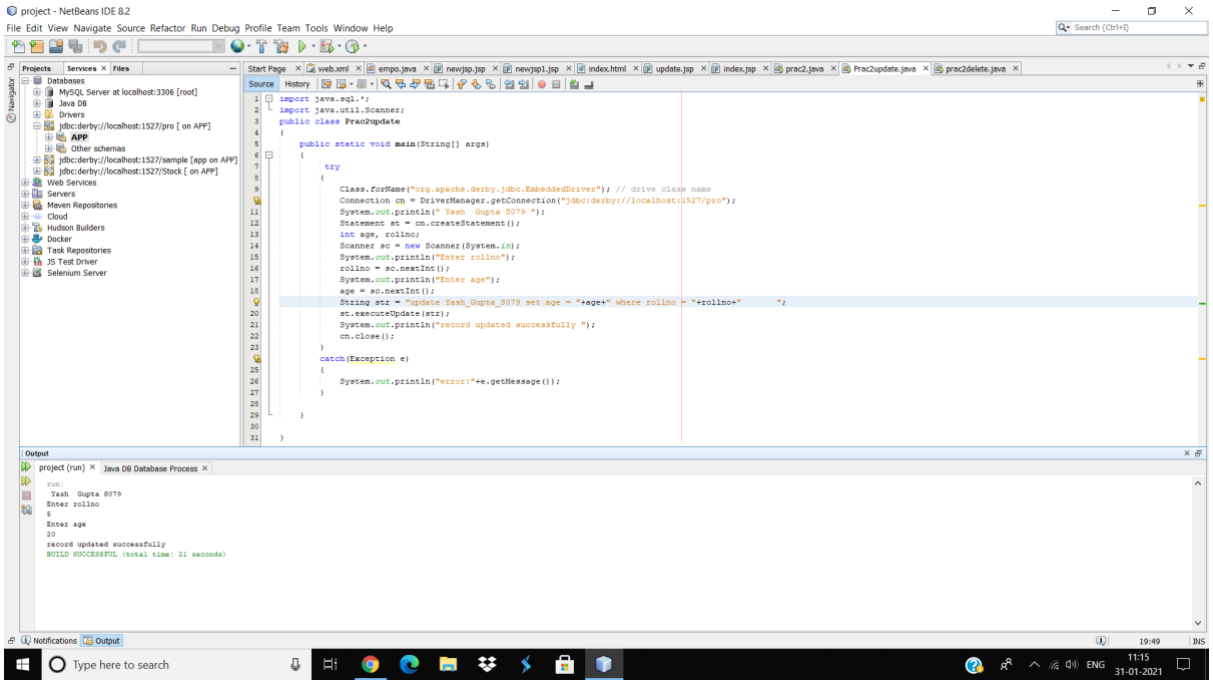

NetBeans IDE 8.2
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Start Page | web.xml | empo.java | newjsp.jsp | newjsp1.jsp | index.html | update.jsp | index.jsp | prac2.java | Prac2update.java | prac2delete.java
Source | History
import java.sql.*;
import java.util.Scanner;
public class prac2
{
public static void main(String[] args)
{
try
{
Class.forName("org.apache.derby.jdbc.EmbeddedDriver"); // drive class name
Connection cn = DriverManager.getConnection("jdbc:derby://localhost:1527/pro"); // database path
Statement st = cn.createStatement();
System.out.println(" Yash Gupta 5079 ");
String str = "create table Yash_Gupta_5079 (rollno int primary key, sname varchar(15), age int,percentage float)";
st.execute(str);
System.out.println("table created successfully ");
Scanner sc = new Scanner(System.in);
int rn,a; String sn; Float p;
int number =1;
while (number <= 5) {
System.out.println("Enter Record For Student "+number+":");
System.out.println("Enter Roll No:");
rn = sc.nextInt();
System.out.println("Enter Name:");
sn = sc.next();
System.out.println("Enter Age:");
a = sc.nextInt();
System.out.println("Enter percentage:");
p = sc.nextFloat();
String it = "insert into Yash_Gupta_5079 values(?,?,?,?) ";
PreparedStatement pst = cn.prepareStatement(it);
pst.setInt(1, rn);
pst.setString(2, sn);
pst.setInt(3, a);
pst.setFloat(4, p);
pst.executeUpdate();
number++;
}
Notifications Output
28:9 INS
Type here to search
ENG 11:13 31-01-2021


project - NetBeans IDE 8.2
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Start Page | web.xml | empo.java | newjsp.jsp | newjsp1.jsp | index.html | update.jsp | index.jsp | prac2.java | Prac2update.java | prac2delete.java
Source | History
System.out.println("Enter Age:");
a = sc.nextInt();
System.out.println("Enter percentage:");
p = sc.nextFloat();
String it = "insert into Yash_Gupta_5079 values(?,?,?,?) ";
PreparedStatement pst = cn.prepareStatement(it);
pst.setInt(1, rn);
pst.setString(2, sn);
pst.setInt(3, a);
pst.setFloat(4, p);
pst.executeUpdate();
number++;
}
System.out.println("record inserted successfully ");
cn.close();
}
catch(Exception e)
{
System.out.println("error:"+e.getMessage());
}
}
}
Notifications Output
28:9 INS
Type here to search
ENG 11:13 31-01-2021




```
import java.sql.*;
import java.util.Scanner;
public class Prac2update
```

```
{
   public static void main(String[] args)
   {
       try
      {
         Class.forName("org.apache.derby.jdbc.EmbeddedDriver"); // drive class name
         Connection cn = DriverManager.getConnection("jdbc:derby://localhost:1527/pro");
          System.out.println("  Neeraj Appari S073 ");
         Statement st = cn.createStatement();
         int age, rollno;
         Scanner sc = new Scanner(System.in);
         System.out.println("Enter rollno");
         rollno = sc.nextInt();
         System.out.println("Enter age");
         age = sc.nextInt();
         String str = "update  Neeraj_Appari_S073 set age = "+age+" where rollno = "+rollno+"
";
         st.executeUpdate(str);
         System.out.println("record updated successfully ");
         cn.close();
      }
      catch(Exception e)
      {
         System.out.println("error:"+e.getMessage());
      }

   }

}
```


project - NetBeans IDE 8.2
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Search (Ctrl+I)
Projects Services Files
Databases
MySQL Server at localhost:3306 [root]
Java DB
Drivers
jdbc:derby://localhost:1527/pro [on APP]
APP
Other schemas
jdbc:derby://localhost:1527/sample [app on APP]
jdbc:derby://localhost:1527/Stock [on APP]
Web Services
Servers
Maven Repositories
Cloud
Hudson Builders
Docker
Task Repositories
JS Test Driver
Selenium Server
Start Page
web.xml
empo.java
newjsp.jsp
newjsp1.jsp
index.html
update.jsp
index.jsp
prac2.java
Prac2update.java
prac2delete.java
Source
History
import java.sql.*;
import java.util.Scanner;
public class Prac2update
{
public static void main(String[] args)
{
try
{
Class.forName("org.apache.derby.jdbc.EmbeddedDriver"); // drive class name
Connection cn = DriverManager.getConnection("jdbc:derby://localhost:1527/pro");
System.out.println(" Yash Gupta 8079 ");
Statement st = cn.createStatement();
int age, rollno;
Scanner sc = new Scanner(System.in);
System.out.println("Enter rollno");
rollno = sc.nextInt();
System.out.println("Enter age");
age = sc.nextInt();
String str = "update Yash_Gupta_8079 set age = "+age+" where rollno = "+rollno+" ";
st.executeUpdate(str);
System.out.println("record updated successfully ");
cn.close();
}
catch(Exception e)
{
System.out.println("error:"+e.getMessage());
}
}
}
Output
project (run)
Java DB Database Process
run:
Yash Gupta 8079
Enter rollno
6
Enter age
20
record updated successfully
BUILD SUCCESSFUL (total time: 21 seconds)
Notifications
Output
19:49
INS
Type here to search
ENG
11:15
31-01-2021

```
import java.sql.*;
import java.util.Scanner;



public class prac2delete {
   public static void main(String[] args)
   {
     try
       {
          Scanner sc = new Scanner(System.in);
          int rn;
          System.out.println("  Neeraj Appari S073 ");
          System.out.println("Enter roll no:");
          rn = sc.nextInt();



          Class.forName("org.apache.derby.jdbc.EmbeddedDriver"); // drive class name
          Connection cn = DriverManager.getConnection("jdbc:derby://localhost:1527/pro");
// database path
          String str = "delete from  Neeraj_Appari_S073 where rollno = ? ";
          PreparedStatement pst = cn.prepareStatement(str);


          pst.setInt(1, rn);


          pst.executeUpdate();
```

```
    System.out.println("record deleted successfully ");
    cn.close();
  }
  catch(Exception e)
  {
    System.out.println("error:"+e.getMessage());
  }}
```