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JSP - MySQL Connectivity

Hospital Application

User Manual

(Windows Operating System)

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QUESTION

Develop a web application for a Hospital Information System using JSP. Use cookies as part of the web application and perform appropriate validations. Document the functional requirements you are considering.

Create relations using MYSQL given below enforcing primary key and foreign key constraints:

DOCTOR (DID, DNAME, SPECIALIZATION)

PATIENT (PID, PNAME, DOB, GENDER, BGROUP)

CONSULTING (PID, DID, CONS_DATE, FEES)

The primary keys are underlined.

Develop a JSP application using database connectivity to list all records from the above relations and illustrate a join query and an update operation.

MySQL

1. Open MySQL.

2. Create a database.

```
mysql> create database hospital;
Query OK, 1 row affected (0.06 sec)
```

3. Connect to the database.

```
mysql> use hospital;
Database changed
```

4. Create the following tables:

```
mysql> create table doctor (did integer, dname varchar(20),
    -> specialization varchar(20), primary key (did));
Query OK, 0 rows affected (0.06 sec)

mysql> create table patient (pid integer, pname varchar(20),
    -> dob date, gender varchar(1), bgroup varchar(5),
    -> primary key (pid));
Query OK, 0 rows affected (0.05 sec)

mysql> create table consulting (pid integer references patient(pid),
    -> did integer references doctor(did), cons_date date,
    -> fees integer, primary key (pid, did, cons_date));
Query OK, 0 rows affected (0.05 sec)
```

5. Display the tables.

```
mysql> show tables;
+---------------------+
| Tables_in_hospital  |
+---------------------+
| consulting          |
| doctor              |
| patient             |
+---------------------+
3 rows in set (0.00 sec)
```

6. Display the table structure.

```
mysql> describe doctor;
+----------------+-------------+------+-----+---------+-------+
| Field          | Type        | Null | Key | Default | Extra |
+----------------+-------------+------+-----+---------+-------+
| did            | int(11)     | NO   | PRI | 0       |       |
| dname          | varchar(20) | YES  |     | NULL    |       |
| specialization | varchar(20) | YES  |     | NULL    |       |
+----------------+-------------+------+-----+---------+-------+
3 rows in set (0.03 sec)

mysql> describe patient;
+--------+-------------+------+-----+---------+-------+
| Field  | Type        | Null | Key | Default | Extra |
+--------+-------------+------+-----+---------+-------+
| pid    | int(11)     | NO   | PRI | 0       |       |
| pname  | varchar(20) | YES  |     | NULL    |       |
| dob    | date        | YES  |     | NULL    |       |
| gender | varchar(1)  | YES  |     | NULL    |       |
| bgroup | varchar(5)  | YES  |     | NULL    |       |
+--------+-------------+------+-----+---------+-------+
5 rows in set (0.05 sec)

mysql> describe consulting;
+-----------+---------+------+-----+------------+-------+
| Field     | Type    | Null | Key | Default    | Extra |
+-----------+---------+------+-----+------------+-------+
| pid       | int(11) | NO   | PRI | 0          |       |
| did       | int(11) | NO   | PRI | 0          |       |
| cons_date | date    | NO   | PRI | 0000-00-00 |       |
| fees      | int(11) | YES  |     | NULL       |       |
+-----------+---------+------+-----+------------+-------+
4 rows in set (0.01 sec)
```

7. Insert rows in the table.

```
mysql> insert into doctor values (1, 'Abdul', 'ENT');
Query OK, 1 row affected (0.02 sec)

mysql> insert into doctor values (2, 'Badri', 'General');
Query OK, 1 row affected (0.01 sec)

mysql> insert into doctor values (3, 'Chandru', 'ENT');
Query OK, 1 row affected (0.03 sec)

mysql> insert into doctor values (4, 'David', 'Neurology');
Query OK, 1 row affected (0.03 sec)

mysql> insert into doctor values (5, 'Gopi', 'Diabetology');
Query OK, 1 row affected (0.02 sec)
```

```
mysql> insert into patient values (1, 'Arun', '1987-11-12', 'M', 'A+');
Query OK, 1 row affected (0.02 sec)

mysql> insert into patient values (2, 'Babu', '1989-06-14', 'M', 'A-');
Query OK, 1 row affected (0.05 sec)

mysql> insert into patient values (3,'Chithra','1988-12-18','F','O+');
Query OK, 1 row affected (0.02 sec)

mysql> insert into consulting values (2, 1, '2014-04-21', 750);
Query OK, 1 row affected (0.03 sec)

mysql> insert into consulting values (1, 1, '2014-04-21', 750);
Query OK, 1 row affected (0.02 sec)

mysql> insert into consulting values (3, 2, '2014-04-21', 500);
Query OK, 1 row affected (0.03 sec)
```

8. Display the records from the table.

```
mysql> select * from doctor;
+-----+---------+----------------+
| did | dname   | specialization |
+-----+---------+----------------+
|   1 | Abdul   | ENT            |
|   2 | Badri   | General        |
|   3 | Chandru | ENT            |
|   4 | David   | Neurology      |
|   5 | Gopi    | Diabetology    |
+-----+---------+----------------+
5 rows in set (0.00 sec)

mysql> select * from patient;
+-----+---------+------------+--------+--------+
| pid | pname   | dob        | gender | bgroup |
+-----+---------+------------+--------+--------+
|   1 | Arun    | 1987-11-12 | M      | A+     |
|   2 | Babu    | 1989-06-14 | M      | A-     |
|   3 | Chithra | 1988-12-18 | F      | O+     |
+-----+---------+------------+--------+--------+
3 rows in set (0.00 sec)

mysql> select * from consulting;
+-----+-----+------------+------+
| pid | did | cons_date  | fees |
+-----+-----+------------+------+
|   1 |   1 | 2014-04-21 |  750 |
|   2 |   1 | 2014-04-21 |  750 |
|   3 |   2 | 2014-04-21 |  500 |
+-----+-----+------------+------+
3 rows in set (0.00 sec)
```

1. Open Eclipse

2. Select the Workspace.

3. Select File → New → Other.

4. Select Dynamic Web Project under Web.

5. Click Next.

6. Enter the Project name as Hospital.

7. Choose Target runtime as Apache Tomcat v7.0.

8. Click Next.

9. Click Next.

10. Click Finish.

11. Click Yes for Open Associated Perspective?

12. Select Hospital Project in the Package Explorer (available in the left hand side of the window).

13. Right Click → New → HTML File.

14. Enter the File name as IndDoctorInfo.

15. Click Next.

16. Click Finish.

17. Change the title as Individual Doctor Info.

18. Enter the following code inside the body tag:

```
<form method="post" action="IndDoctorInfo.jsp">
<center>
<h2>Hospital Management System</h2>
</center>
<hr>
Enter the Doctor Id.
<input type="text" name="did">
<input type="submit" value="Get Details">
</form>
```

19. Select Hospital Project in the Package Explorer (available in the left hand side of the window).

20. Right Click → New → JSP File.

21. Enter the File name as IndDoctorInfo.

22. Click Next.

23. Click Finish.

24. Change the title as Individual Doctor Info.

25. Add the statement import="java.sql.*" at the end of the page directive.

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" import="java.sql.*"%>
```

26. Enter the following code inside the body tag:

```
<%
    Connection conn = null;
    PreparedStatement ps = null;
    ResultSet rs = null;
%>
```

27. Create a try...catch block inside the scriplet <% %>:

```
try
{
}
catch(Exception e)
{
    out.println(e);
}
```

28. Enter the following statements inside the try block:

```
Class.forName("com.mysql.jdbc.Driver");
String URL = "jdbc:mysql://localhost:3306/hospital";
conn = DriverManager.getConnection(URL, "root", "admin");
```

29. Select the file mysql-connector-java-5.1.29-bin.jar from your hard disk and press Ctrl+C to copy.

30. Select Hospital in the Package Explorer.

31. Select WebContent → WEB-INF → lib.

32. Press Ctrl+V to paste.

33. Continue entering the following statements inside the try block:

```
ps = conn.prepareStatement("select * from doctor where did = ?");
String did = request.getParameter("did");
ps.setString(1, did);
rs = ps.executeQuery();
if(rs.next())
{
   out.println("<center><h3>Individual Doctor Info</h3></center>");
   out.println("<hr>");
   out.println("Doctor Id. :" + rs.getInt(1));
   out.println("<br>");
   out.println("Name :" + rs.getString(2));
   out.println("<br>");
   out.println("Specialization :" + rs.getString(3));
   out.println("<br>");
}
rs.close();
ps.close();
conn.close();
```

34. Right Click inside the Code Window of IndDoctorInfo.html.

35. Select Run As → Run on Server.

36. Select the Tomcat v7.0 Server at localhost.

37. Click Next.

38. Click Finish.

39. It will open a browser window.

40. Enter the Doctor Id. and click Get Details.

41. The records will be displayed in browser window.

42. The full source code for IndDoctorInfo.html is:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>Individual Doctor Info</title>
</head>
<body>
<form method="post" action="IndDoctorInfo.jsp">
<center>
<h2>Hospital Management System</h2>
</center>
```

```html
<hr>
Enter the Doctor Id.
<input type="text" name="did">
<input type="submit" value="Get Details">
</form>
</body>
</html>
```

43. The full source code for IndDoctorInfo.jsp is:

```jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" import="java.sql.*"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>Individual Doctor Info</title>
</head>
<body>
<%
    Connection conn = null;
    PreparedStatement ps = null;
    ResultSet rs = null;
    try
    {
        Class.forName("com.mysql.jdbc.Driver");
        String URL = "jdbc:mysql://localhost:3306/hospital";
        conn = DriverManager.getConnection(URL, "root", "admin");
        ps = conn.prepareStatement("select * from doctor where did = ?");
        String did = request.getParameter("did");
        ps.setString(1, did);
        rs = ps.executeQuery();
        if(rs.next())
        {
            out.println("<center><h3>Individual Doctor Info</h3></center>");
            out.println("<hr>");
            out.println("Doctor Id. :" + rs.getInt(1));
            out.println("<br>");
            out.println("Name :" + rs.getString(2));
            out.println("<br>");
            out.println("Specialization :" + rs.getString(3));
            out.println("<br>");
        }
        rs.close();
        ps.close();
        conn.close();
    }
    catch(Exception e)
    {
        out.println(e);
    }
%>
</body>
</html>
```

1. Select Hospital Project in the Package Explorer (available in the left hand side of the window).

2. Right Click → New → HTML File.

3. Enter the File name as IndPatientInfo.

4. Click Next.

5. Click Finish.

6. Change the title as Individual Patient Info.

7. Enter the following code inside the body tag:

```html
<form method="post" action="IndPatientInfo.jsp">
<center>
<h2>Hospital Management System</h2>
</center>
<hr>
Enter the patient Id.
<input type="text" name="pid">
<input type="submit" value="Get Details">
</form>
```

8. Select Hospital Project in the Package Explorer (available in the left hand side of the window).

9. Right Click → New → JSP File.

10. Enter the File name as IndPatientInfo.

11. Click Next.

12. Click Finish.

13. Simply copy the entire code available in the IndDoctorInfo.jsp file paste into the file IndPatientInfo.jsp.

14. Change the title as Individual Patient Info.

15. Do the following modifications in the code:

```java
ps = conn.prepareStatement("select * from patient where pid = ?");
String pid = request.getParameter("pid");
ps.setString(1, pid);
rs = ps.executeQuery();
```

```java
   if(rs.next())
   {
      out.println("<center><h3>Individual Patient Info</h3></center>");
      out.println("<hr>");
      out.println("Patient Id. :" + rs.getInt(1));
      out.println("<br>");
      out.println("Name :" + rs.getString(2));
      out.println("<br>");
      out.println("Date of Birth :" + rs.getString(3));
      out.println("<br>");
      out.println("Gender :" + rs.getString(4));
      out.println("<br>");
      out.println("Blood Group :" + rs.getString(5));
      out.println("<br>");
   }
   rs.close();
   ps.close();
   conn.close();
```

16. Right Click inside the Code Window of IndPatientInfo.html.

17. Select Run As → Run on Server.

18. Select the Tomcat v7.0 Server at localhost.

19. Click Next.

20. Click Finish.

21. It will open a browser window.

22. Enter the Patient Id. and click Get Details.

23. The records will be displayed in browser window.

24. The full source code for IndPatientInfo.html is:

```html
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>Individual Patient Info</title>
</head>
<body>
<form method="post" action="IndPatientInfo.jsp">
<center>
<h2>Hospital Management System</h2>
</center>
<hr>
Enter the patient Id.
<input type="text" name="pid">
<input type="submit" value="Get Details">
```

```
</form>
</body>
</html>
```

25. The full source code for IndPatientInfo.jsp is:

```jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" import="java.sql.*"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>Individual Patient Info</title>
</head>
<body>
<%
        Connection conn = null;
        PreparedStatement ps = null;
        ResultSet rs = null;
        try
        {
                Class.forName("com.mysql.jdbc.Driver");
                String URL = "jdbc:mysql://localhost:3306/hospital";
                conn = DriverManager.getConnection(URL, "root", "admin");
                ps = conn.prepareStatement("select * from patient where pid = ?");
                String pid = request.getParameter("pid");
                ps.setString(1, pid);
                rs = ps.executeQuery();
                if(rs.next())
                {
                        out.println("<center><h3>Individual Patient Info</h3></center>");
                        out.println("<hr>");
                        out.println("Patient Id. :" + rs.getInt(1));
                        out.println("<br>");
                        out.println("Name :" + rs.getString(2));
                        out.println("<br>");
                        out.println("Date of Birth :" + rs.getString(3));
                        out.println("<br>");
                        out.println("Gender :" + rs.getString(4));
                        out.println("<br>");
                        out.println("Blood Group :" + rs.getString(5));
                        out.println("<br>");
                }
                rs.close();
                ps.close();
                conn.close();
        }
        catch(Exception e)
        {
                out.println(e);
        }
%>
</body>
</html>
```

1. Select Hospital Project in the Package Explorer (available in the left hand side of the window).

2. Right Click → New → HTML File.

3. Enter the File name as IndConsultingInfo.

4. Click Next.

5. Click Finish.

6. Change the title as Individual Consulting Info.

7. Enter the following code inside the body tag:

```
<form method="post" action="IndConsultingInfo.jsp">
<center>
<h2>Hospital Management System</h2>
</center>
<hr>
Enter the Doctor Id.
<input type="text" name="did">
<input type="submit" value="Get Details">
</form>
```

8. Select Hospital Project in the Package Explorer (available in the left hand side of the window).

9. Right Click → New → JSP File.

10. Enter the File name as IndConsultingInfo.

11. Click Next.

12. Click Finish.

13. Simply copy the entire code available in the IndDoctorInfo.jsp file paste into the file IndConsultingInfo.jsp.

14. Change the title as Individual Consulting Info.

15. Do the following modifications in the code:

```
ps = conn.prepareStatement("select c.pid, p.pname, c.cons_date, c.fees
from consulting c, patient p where c.pid = p.pid and c.did = ?");
String did = request.getParameter("did");
ps.setString(1, did);
rs = ps.executeQuery();
out.println("<center><h3>Individual Consulting Info</h3></center>");
```

```
   out.println("<hr>");
   while(rs.next())
   {
      out.println("Patient Id. :" + rs.getInt(1));
      out.println("<br>");
      out.println("Name :" + rs.getString(2));
      out.println("<br>");
      out.println("Date of Consulting :" + rs.getDate(3));
      out.println("<br>");
      out.println("Fees :" + rs.getInt(4));
      out.println("<br>");
   }
   rs.close();
   ps.close();
   conn.close();
```

16. Right Click inside the Code Window of IndConsultingInfo.html.

17. Select Run As → Run on Server.

18. Select the Tomcat v7.0 Server at localhost.

19. Click Next.

20. Click Finish.

21. It will open a browser window.

22. Enter the Doctor Id. and click Get Details.

23. The records will be displayed in browser window.

24. The full source code for IndConsultingInfo.html is:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>Individual Consulting Info</title>
</head>
<body>
<form method="post" action="IndConsultingInfo.jsp">
<center>
<h2>Hospital Management System</h2>
</center>
<hr>
Enter the Doctor Id.
<input type="text" name="did">
<input type="submit" value="Get Details">
</form>
</body>
</html>
```

25. The full source code for IndConsultingInfo.jsp is:

```jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" import="java.sql.*"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>Individual Consulting Info</title>
</head>
<body>
<%
      Connection conn = null;
      PreparedStatement ps = null;
      ResultSet rs = null;
      try
      {
            Class.forName("com.mysql.jdbc.Driver");
            String URL = "jdbc:mysql://localhost:3306/hospital";
            conn = DriverManager.getConnection(URL, "root", "admin");
            ps = conn.prepareStatement("select c.pid, p.pname, c.cons_date, c.fees from
            consulting c, patient p where c.pid = p.pid and c.did = ?");
            String did = request.getParameter("did");
            ps.setString(1, did);
            rs = ps.executeQuery();
            out.println("<center><h3>Individual Consulting Info</h3></center>");
            out.println("<hr>");
            while(rs.next())
            {
                  out.println("Patient Id. :" + rs.getInt(1));
                  out.println("<br>");
                  out.println("Name :" + rs.getString(2));
                  out.println("<br>");
                  out.println("Date of Consulting :" + rs.getDate(3));
                  out.println("<br>");
                  out.println("Fees :" + rs.getInt(4));
                  out.println("<br>");
            }
            rs.close();
            ps.close();
            conn.close();
      }
      catch(Exception e)
      {
            out.println(e);
      }
%>
</body>
</html>
```

1. Select Hospital Project in the Package Explorer (available in the left hand side of the window).

2. Right Click → New → HTML File.

3. Enter the File name as DoctorInfoAdd.

4. Click Next.

5. Click Finish.

6. Change the title as Doctor Info - Add.

7. Enter the following code inside the body tag:

```html
<form method="post" action="DoctorInfoAdd.jsp">
<center>
<h2>Hospital Management System</h2>
</center>
<hr>
Doctor Id.
<input type="text" name="did">
<br>
Name
<input type="text" name="dname">
<br>
Specialization
<input type="text" name="specialization">
<br>
<input type="submit" value="Add Details">
</form>
```

8. Select Hospital Project in the Package Explorer (available in the left hand side of the window).

9. Right Click → New → JSP File.

10. Enter the File name as DoctorInfoAdd.

11. Click Next.

12. Click Finish.

13. Change the title as Doctor Info - Add.

14. Add the statement import="java.sql.*" at the end of the page directive.

```jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" import="java.sql.*"%>
```

15. Enter the following code inside the body tag:

```
<%
    Connection conn = null;
    PreparedStatement ps = null;
%>
```

16. Create a try...catch block inside the scriplet <% %>:

```
try
{
}
catch(Exception e)
{
    out.println(e);
}
```

17. Enter the following statements inside the try block:

```
Class.forName("com.mysql.jdbc.Driver");
String URL = "jdbc:mysql://localhost:3306/hospital";
conn = DriverManager.getConnection(URL, "root", "admin");
```

18. Continue entering the following statements inside the try block:

```
ps = conn.prepareStatement("insert into doctor values (?, ?, ?)");
String did = request.getParameter("did");
String dname = request.getParameter("dname");
String specialization = request.getParameter("specialization");
ps.setString(1, did);
ps.setString(2, dname);
ps.setString(3, specialization);
ps.executeUpdate();
out.println("<center><h3>Doctor Details Added</h3></center>");
ps.close();
conn.close();
```

19. Right Click inside the Code Window of DoctorInfoAdd.html.

20. Select Run As → Run on Server.

21. Select the Tomcat v7.0 Server at localhost.

22. Click Next.

23. Click Finish.

24. It will open a browser window.

25. Enter the Doctor Id., name, specialization and click Add Details.

26. The records inserted in MySQL database.

27. The full source code for DoctorInfoAdd.html is:

```html
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>Doctor Info - Add</title>
</head>
<body>
<form method="post" action="DoctorInfoAdd.jsp">
<center>
<h2>Hospital Management System</h2>
</center>
<hr>
Doctor Id.
<input type="text" name="did">
<br>
Name
<input type="text" name="dname">
<br>
Specialization
<input type="text" name="specialization">
<br>
<input type="submit" value="Add Details">
</form>
</body>
</html>
```

28. The full source code for DoctorInfoAdd.jsp is:

```jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" import="java.sql.*"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>Doctor Info - Add</title>
</head>
<body>
<%
    Connection conn = null;
    PreparedStatement ps = null;
    try
    {
        Class.forName("com.mysql.jdbc.Driver");
        String URL = "jdbc:mysql://localhost:3306/hospital";
        conn = DriverManager.getConnection(URL, "root", "admin");
        ps = conn.prepareStatement("insert into doctor values (?, ?, ?)");
        String did = request.getParameter("did");
        String dname = request.getParameter("dname");
        String specialization = request.getParameter("specialization");
        ps.setString(1, did);
        ps.setString(2, dname);
        ps.setString(3, specialization);
        ps.executeUpdate();
        out.println("<center><h3>Doctor Details Added</h3></center>");
```

```jsp
                ps.close();
                conn.close();
        }
        catch(Exception e)
        {
                out.println(e);
        }
%>
</body>
</html>
```

1. Select Hospital Project in the Package Explorer (available in the left hand side of the window).

2. Right Click → New → HTML File.

3. Enter the File name as PatientInfoAdd.

4. Click Next.

5. Click Finish.

6. Change the title as Patient Info - Add.

7. Enter the following code inside the body tag:

```html
<form method="post" action="PatientInfoAdd.jsp">
<center>
<h2>Hospital Management System</h2>
</center>
<hr>
Patient Id.
<input type="text" name="pid">
<br>
Name
<input type="text" name="pname">
<br>
DOB
<input type="text" name="dob">
<br>
Gender
<input type="text" name="gender">
<br>
Blood Group
<input type="text" name="bgroup">
<br>
<input type="submit" value="Add Details">
</form>
```

8. Select Hospital Project in the Package Explorer (available in the left hand side of the window).

9. Right Click → New → JSP File.

10. Enter the File name as PatientInfoAdd.

11. Click Next.

12. Click Finish.

13. Simply copy the entire code available in the DoctorInfoAdd.jsp file paste into the file PatientInfoAdd.jsp.

14. Change the title as Patient Info - Add.

15. Do the following modifications in the code:

```
ps = conn.prepareStatement("insert into patient values (?,?,?,?,?)");
String pid = request.getParameter("pid");
String pname = request.getParameter("pname");
String dob = request.getParameter("dob");
String gender = request.getParameter("gender");
String bgroup = request.getParameter("bgroup");
ps.setString(1, pid);
ps.setString(2, pname);
ps.setString(3, dob);
ps.setString(4, gender);
ps.setString(5, bgroup);
ps.executeUpdate();
out.println("<center><h3>Patient Details Added</h3></center>");
ps.close();
conn.close();
```

16. Right Click inside the Code Window of PatientInfoAdd.html.

17. Select Run As → Run on Server.

18. Select the Tomcat v7.0 Server at localhost.

19. Click Next.

20. Click Finish.

21. It will open a browser window.

22. Enter the Patient Id., name, dob, gender, blood group and click Add Details.

23. The records inserted in MySQL database.

24. The full source code for PatientInfoAdd.html is:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>Patient Info - Add</title>
</head>
<body>
```

```html
<form method="post" action="PatientInfoAdd.jsp">
<center>
<h2>Hospital Management System</h2>
</center>
<hr>
Patient Id.
<input type="text" name="pid">
<br>
Name
<input type="text" name="pname">
<br>
DOB
<input type="text" name="dob">
<br>
Gender
<input type="text" name="gender">
<br>
Blood Group
<input type="text" name="bgroup">
<br>
<input type="submit" value="Add Details">
</form>
</body>
</html>
```

25. The full source code for PatientInfoAdd.jsp is:

```jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" import="java.sql.*"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>Patient Info - Add</title>
</head>
<body>
<%
    Connection conn = null;
    PreparedStatement ps = null;
    try
    {
        Class.forName("com.mysql.jdbc.Driver");
        String URL = "jdbc:mysql://localhost:3306/hospital";
        conn = DriverManager.getConnection(URL, "root", "admin");
        ps = conn.prepareStatement("insert into patient values (?, ?, ?, ?, ?)");
        String pid = request.getParameter("pid");
        String pname = request.getParameter("pname");
        String dob = request.getParameter("dob");
        String gender = request.getParameter("gender");
        String bgroup = request.getParameter("bgroup");
        ps.setString(1, pid);
        ps.setString(2, pname);
        ps.setString(3, dob);
        ps.setString(4, gender);
        ps.setString(5, bgroup);
        ps.executeUpdate();
        out.println("<center><h3>Patient Details Added</h3></center>");
        ps.close();
        conn.close();
    }
```

```
        catch(Exception e)
        {
                out.println(e);
        }
 %>
</body>
</html>
```

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