

### **Practical No. 15**

**Objective:** Demonstrate the use of Stateless session beans using RMI.

**Theory:**

Stateless Session bean *is a business object that represents business logic only*. It doesn't have state (data). In other words, *conversational state* between multiple method calls is not maintained by the container in case of stateless session bean. The stateless bean objects are pooled by the EJB container to service the request on demand. It can be accessed by one client at a time. In case of concurrent access, EJB container routes each request to different instance.

**Source Code:**

**SquareEJB-ejb(SquareSessionBean.java)**

```
package squareejbdemo; import
javax.ejb.Stateless;
@Stateless
public class SquareSessionBean implements SquareSessionBeanRemote,
SquareSessionBeanLocal {
    @Override
    public int getSquare(int var) {
return (var*var);
    }
}
```

**SquareEJB-war(square.java)** import

```
java.io.IOException; import
java.io.PrintWriter; import
javax.ejb.EJB;
```

```
import javax.servlet.ServletException; import
javax.servlet.http.HttpServlet; import
javax.servlet.http.HttpServletRequest; import
javax.servlet.http.HttpServletResponse;
import
squareejbdemo.SquareSessionBeanRemote;
```

```
public class square extends HttpServlet {
```

```
    @EJB
```

```
    private SquareSessionBeanRemote squareSessionBean;
```

```
protected void processRequest(HttpServletRequest request,
HttpServletResponse response)          throws
```

```
ServletException, IOException {
```

```
response.setContentType("text/html;charset=UTF-8");
```

```
try (PrintWriter out = response.getWriter()) {
```

```
int x =
```

```
Integer.parseInt(request.getParameter("t1"));
```

```

out.println("<!DOCTYPE html>");
out.println("<html>");          out.println("<head>");
    out.println("<title>Servlet square</title>");
out.println("</head>");          out.println("<body>");
    out.println("<h1>Square of " + x + " is " +
squareSessionBean.getSquare(x) + "</h1>");
out.println("</body>");          out.println("</html>");
    }
}
@Override

```

```

protected void doGet(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
processRequest(request, response);
}
@Override
protected void doPost(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
processRequest(request, response);
}
@Override
public String getServletInfo() {
return "Short description";
}
}

```

### **index.html**

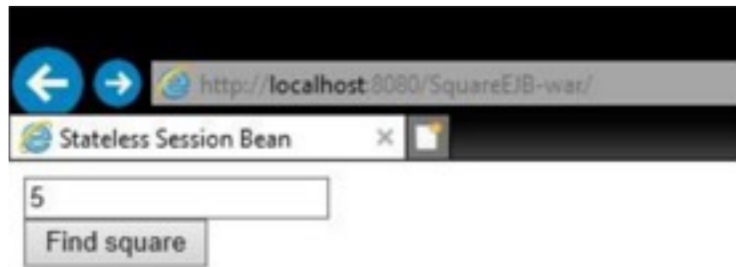
```

<html>
<head>
    <title>Stateless Session Bean</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0"> </head>
<body>
    <form action ="square">
        <input type="text" name="t1">
        <br>

        <input type="submit" value="Find square">
    </form>
</body></html>

```

**Output:**



**Square of 5 is 25**

**Result:** The given program has been compiled and executed successfully.