Server-side Programming:
Java Servlets

Servlet Collaboration

- Request Dispatcher
- SendRedirect

Request Dispatcher

- Dispatching the request to another resource(servlet, jsp or html)
- Can be used to include content of another resource
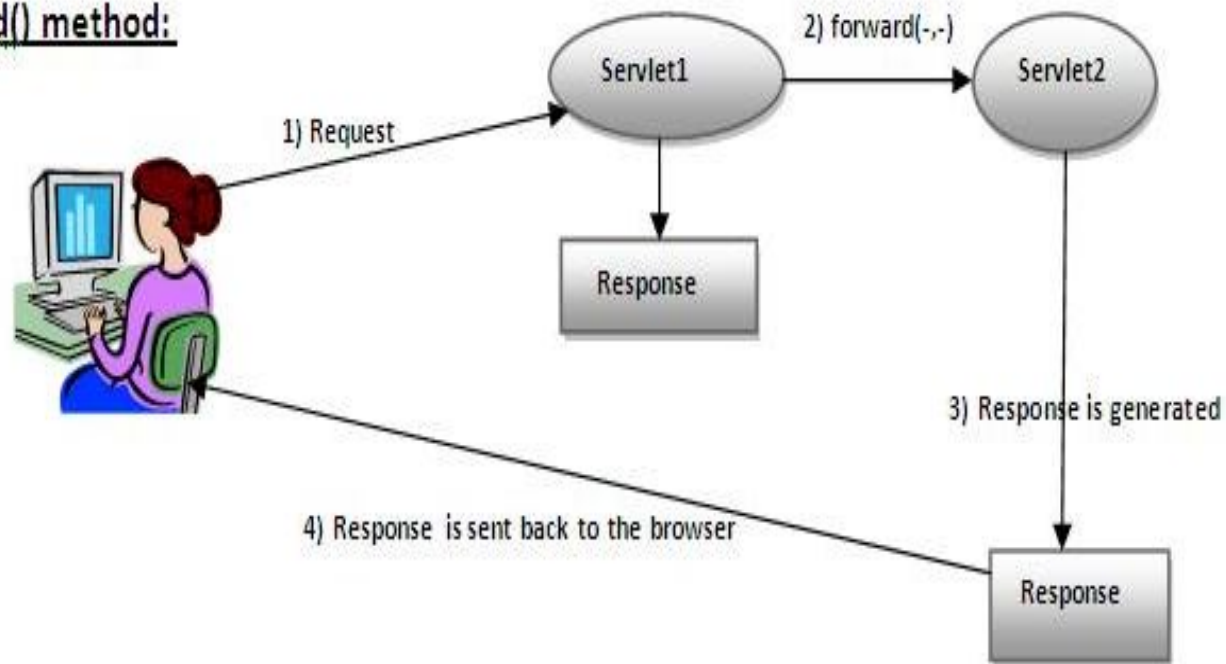- 2 methods
  - Forward
  - Include

Request Dispatcher

public void forward(ServletRequest request,ServletResponse response)

– Forwards a request from a servlet to another resource (servlet, JSP file, or HTML file) on the server.
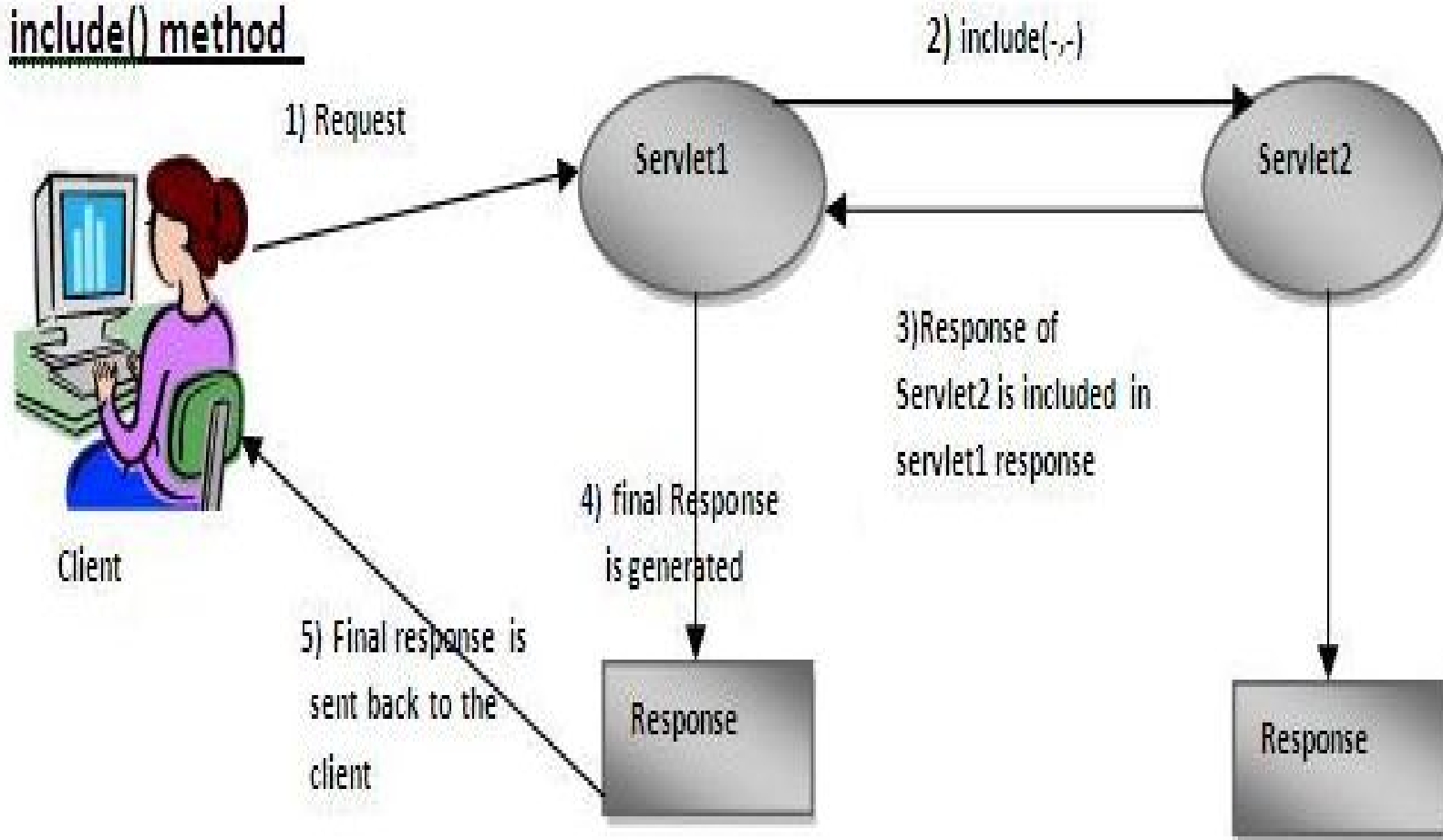
Forward method

Request Dispatcher

- **public void include(ServletRequest request,ServletResponse response)**

- Includes the content of a resource (servlet, JSP page, or HTML file) in the response.

Include method

include() method

1) Request

2) include(-,-)

Servlet1

Servlet2

3)Response of Servlet2 is included in servlet1 response

4) final Response is generated

Client

5) Final response is sent back to the client

Response

Response

Request Dispatcher
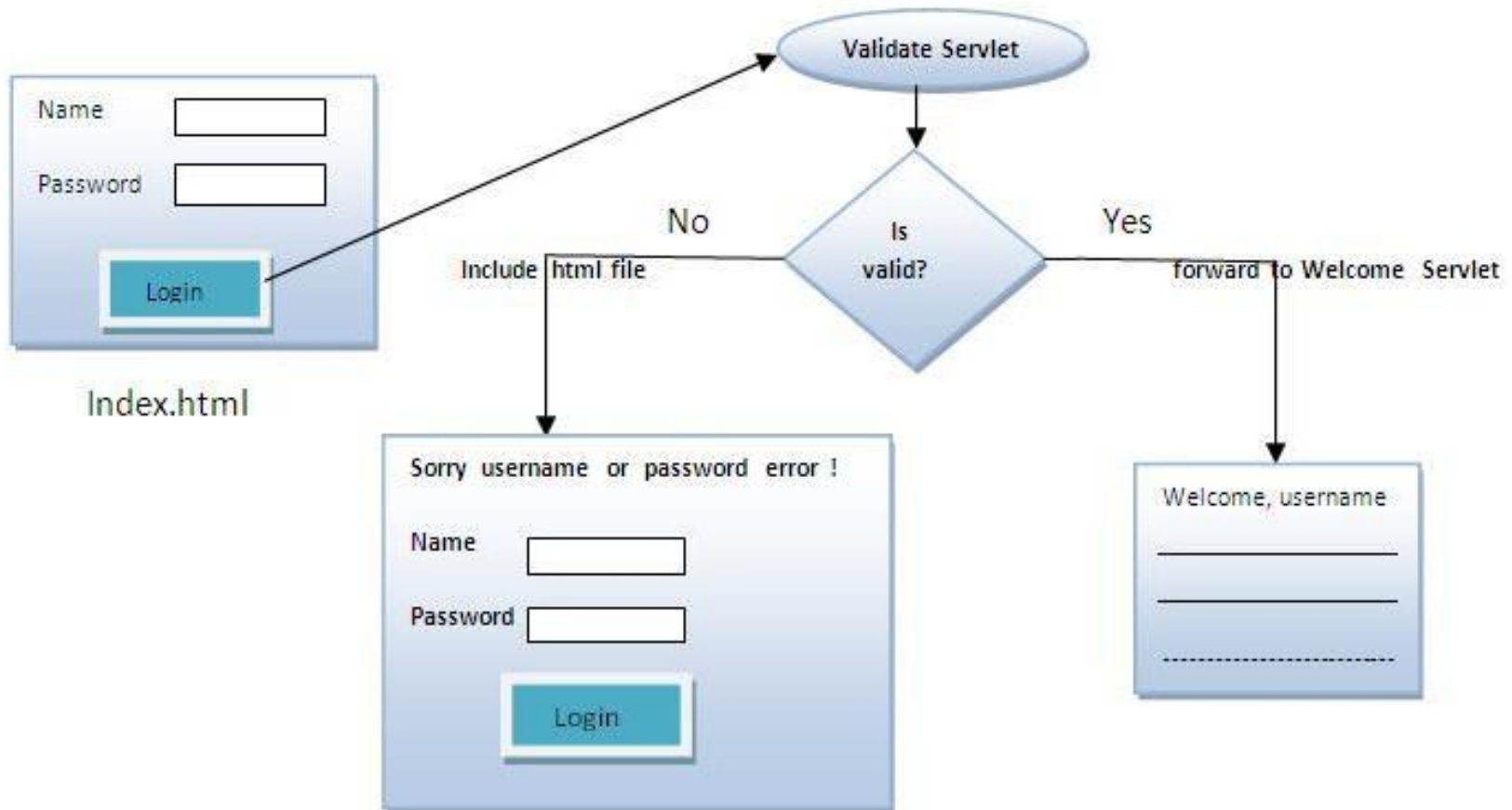
- To get the object of Request dispatcher
  - getRequestDispatcher() method of ServletRequest interface

Syntax:

public RequestDispatcher getRequestDispatcher (String resource);

RequestDispatcher rd= request.getRequestDispatcher("servlet2");

rd.forward(request, response);

Login example

Login example

Index.html
```
<form action="servlet1" method="post">
Name:<input type="text" name="userName"/><br/>
Password:<input type="password" name="userPass"/><br/>
<input type="submit" value="login"/>
</form>
```

Login.java

```java
public class Login extends HttpServlet
 {
public void doPost(HttpServletRequest request, HttpServletResp
onse response) throws ServletException, IOException
{

     response.setContentType("text/html");
     PrintWriter out = response.getWriter();
     String n=request.getParameter("userName");
     String p=request.getParameter("userPass");
     if(n.equals("kavitha") && p.equals("abcd"))

    {
  RequestDispatcher rd=request.getRequestDispatcher("servlet2
");    rd.forward(request, response);
   }
  else{
    out.println("Sorry UserName or Password Error!");
equestDispatcher rd=request.getRequestDispatcher("/index.html"
);
      rd.include(request, response);
  }     }   }
```

WelcomeServlet.java

```java
public class WelcomeServlet extends HttpServlet
 {
 public void doPost(HttpServletRequest request, HttpServletResp
onse response)throws ServletException, IOException
{

        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        String n=request.getParameter("userName");
        out.println("Welcome "+n);

 }
 }
```

SendRedirect

- Redirecting the request to another resource(servlet, jsp or html)
- Works at client side
- Method of HttpServletResponse
- Syntax
  - public void sendRedirect(String URL)
  - Ex: response.sendRedirect("http://www.vit.ac.in");

SendRedirect

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- Syntax
  - public void sendRedirect(String URL)

Ser.html

```
<form action="Search">
 <input type="text" name="name">
 <input type="submit" value="Google Search">
 </form>
```

Search.java

```java
public class Search extends HttpServlet
 {
protected void doGet(HttpServletRequest request, HttpServletRe
sponse response)  throws ServletException, IOException
{
String name=request.getParameter("name");
response.sendRedirect("https://www.google.co.in/#q="+name);
 }
 }
```

Differences between forward and sendredirect

Forward()	sendRedirect()
Works at server side	Works at client side
It sends the same request and response objects to another servlet.	It always sends a new request.
It can work within the server only.	It can be used within and outside the server.
Example: request.getRequestDispacher("servlet2") .forward(request,response);	Example: response.sendRedirect("servlet2");

References

- http://www.javatpoint.com/servlet-tutorial