Short Q-Ans.

(1) Differentiate between servlet and JSP.

Already done in previous paper.

(2) What is the difference between forward and include JSP actions?

Include action is used to include contents of another Servlet, JSP or HTML files, while the forward action is used to forward the current HTTP request to another servlet or JSP for further processing.

(3) What is the difference between a static

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and a dynamic website?

Already done in previous paper.

(4) What do you know about send redirection?

Already done in previous paper.

(5) What is the difference between cookies and sessions?

Already done in previous paper.

(6) What are the benefits of JSP over Java Servlets?

(i) Servlets use printIn statements for printing an HTML document which is very difficult to use, JSP has no such tedius task to maintain.

(ii) JSP needs no compilation, CLASPATH setting and packaging.

(iii) In a JSP page visual content and logic are separated, which is not possible in a servlet.

(iv) There is automatic deployment of a JSP, recompilation is done automatically when changes are made to JSP pages.

(v) Usually with JSP, JavaBeans and custom tags web applications is simplified.

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(7) What are the components of Java Beans?

Already done in previous paper.

(8) What is the purpose of AJAX technique?

Already done in previous paper.

(9) What are the components of HTTP request?

Already done in previous paper.

(10) Diff b/w N-Ties and MVC?

Already done in previous paper.

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Long Q-Ans.

(1) Write down the difference between GET and POST methods for sending a request to the server.

Already done in previous paper.

(2) What is the difference between a Request Dispatcher and Send Redirection? Also explain the types of Request Dispatcher.

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∴ Request Dispatcher :-

Request Dispatcher is an interface whose implementation defines an object which can dispatch the request to any resources on the Server (resources such as HTML, Image, JSP, Servlet, etc).

→ This interface is used in two cases:

• To include the response of one servlet into another (i.e., the client gets the response of both servlets).

• To forward the client request to another servlet to honor the request (i.e., the client is given by another servlet).
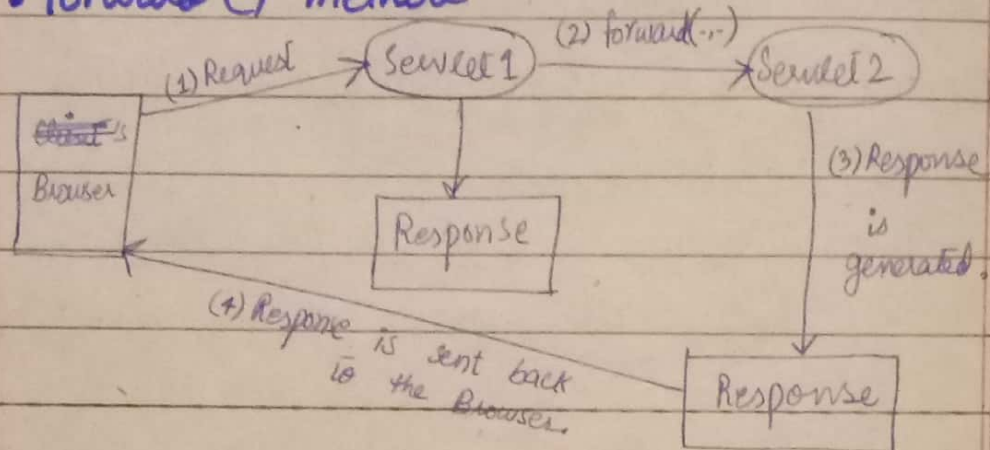
Therefore the Request Dispatcher interface provides two methods:

(1) public void forward (ServletRequest request, ServletResponse response) throws ServletException, java.io.IOException : Forwards a request from a servlet to another resource (servlet, JSP file, or HTML file) on the server.

(2) public void include (ServletRequest request, ServletResponse response) throws ServletException, java.io.IOException : Includes the
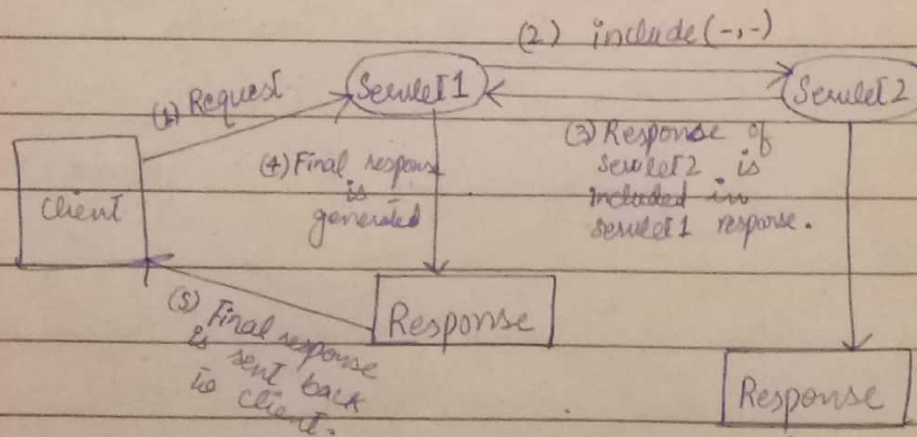
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content of a resource (servlet, JSP page., or HTML file) in the response.

• forward () method :

• include () method :

∴ Send Redirection :-

On a website, redirection is a technique for moving visitors to a different web page than the one they request, usually because the page requested is unavailable. Web users often encounter redirection when they visit the web

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site of a company whose name has been changed or which has been acquired by another company.

In either case, the website probably will include a new domain name and it will have a new URL. To make sure that visitors are familiar with the old company get to the new site, the company will turn the original website homepage into a redirect page, containing a message that says something like: " we have moved to a new location. Please change your bookmark. In five seconds, we will transfer you to the new page."

In addition to replacing the content of the old page with the redirect text, the company adds a meta refresh line in the header section of the page that looks something like this:

```
< meta http-equiv = "refresh"
content = "5 ; url = http://www.ournewsite.com" >
```

In this, the "5" means change to the new page in five seconds. The "url = http://www.ournewsite.com" is an example of the URL for the new page.

If you own a website that people have learned

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To use and you then change the name and location of a web page, it is strongly recommended that you make the original page a redirect page with a meta refresh tag to the new page. Otherwise, visitors familiar with the old page will get a 404 (page not found) message.

(3) Write a JSP page which will dynamically create a table with all information regarding SmartLockDown saved in the database.

DB Name : Database.

Table Name : SmartLockdownsarea_name (varchar(15), city_name (varchar (15)), no.of.patients (int), no_of_days (int).

```jsp
<%@ page import = "java.sql.DriverManager" %>
<%@ page import = "java.sql.ResultSet" %>
<%@ page import = "java.sql.Statement" %>
<%@ page import = "java.sql.Connection" %>
<%

String driver = "com.mysql.jdbc.Driver";
String ConnectionUrl = "jdbc:mysql://localhost:3306/";
String database = "Database";
```

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```
String  userid = "root";
String  password = " ";
try {
    Class.forName ( driver);
} catch ( ClassNotFoundException e) {
    e.printStackTrace ();
}

Connection  connection  =  null;
Statement  statement =  null;
ResultSet  resultSet =  null;
%>
<html>
    <body>
        <table  border = "1" >
        <tr> <th> area_name </th>
            <th> city_name <th>
            <th> no_of_patients </th>
            <th> no_of_days </th>
        </tr>
        <%
        try {
            connection = DriverManager . getConnection
            (connectionUrl + database , userid, password);
            statement = connection . createStatement ();
```

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```jsp
String sql= "select area_name, city name,
            no.of_patients, no.of_days from
            SmartLockDown ";
resultSet = Statement.executeQuery (sql);
while (resultSet.next ()){
%>
    <tr>
        <th><%= resultSet.getString ("area_name") %></th>
        <th><%= resultSet.getString ("city name") %></th>
        <th><%= resultSet.getInt ("no.of_patients") %></th>
        <th><%= resultSet.getInt ("no.of_days") %></th>
    </tr>
<%
    }

    connection.close ();
} catch (Exception e){
    e.printStackTrace ();
}
%>
</table>
<body>
</html>
```