

9

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Date: 16<sup>th</sup> Oct, 2022.

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## Past Paper 2018 .

### Short Q-Ans.

(2) Describe the two attributes i.e., action and method of table tag in html?

• Action attribute &

This is used to send the data to the server after the submission of the form.

• Method attribute &

This is used to upload the data by using two methods that are Get and Post.

`<form action = "/action-page.php" method = "get">`

(2) Write down life cycle of a JSP page .

→ Following steps are involved in JSP lifecycle:

- Translation of JSP page to Servlet.
- Compilation of JSP page (into test.java).
- Classloading (test.java to test.class).
- Instantiation (Object of the generated Servlet is created).
- Initialization (jspInit() method is invoked by the container).
- Request Processing (jspService() is invoked by the container).

- o JSP cleanup (jspDestroy()) method is invoked by the container).

### (3) What is meant by server-side scripting language?

Server-side scripting languages are programming languages developed especially for creating HTML pages (or web pages) on the server side. These languages usually provide special libraries that facilitate creating HTML pages. For example: PHP, Ruby, Perl, Python etc.

### (4) What is meant by markup language?

A system (such as HTML or SGML) for marking or tagging a document that indicates its logical structure (such as paragraphs) and gives instructions for its layout on the page especially for electronic transmission and display. HTML is called a markup language because it defines the structure and layout of the content users see on a webpage. HTML is the most popular markup language in the world.

### (5) What is the purpose of JSP directives?

JSP directives are used to give special instruction to a container for translation of JSP to server code. In JSP life cycle phase, JSP has to be converted to a servlet which is a translation phase. Directives can have many attributes by comma separated as key-value pairs. There are three types of directives :

- page directive.
- include directive.
- taglib directive.

### (6) What is meant by AJAX?

AJAX stands for Asynchronous JavaScript and XML. In a nutshell, it is a use of the XMLHttpRequest object to communicate with servers. It can send and receive information in various formats including JSON, XML, HTML and text files.

### (7) Define JavaBeans.

→ A JavaBean is a Java class that should follow the following conventions :

- It should have no argument constructor.
- It should be serializable.



Date: 16<sup>th</sup> Oct, 22.

- It should provide methods to set and get the values of the properties, known as getter and setter methods.
- JavaBeans provide easy maintenance.

### (8) Difference between sessions and cookies.

#### Cookie

- Cookies are client-side files on a local computer that hold user information.
- Cookies end on the lifetime which is set by the user.
- It can only store a certain amount of info.
- Cookies are not secured.
- Cookies store data in text file.
- Cookies stored on a limited data.

#### Session.

- Sessions are server-side files that contain user data.
- When the user quits the browser or logs out of the programmed, session is over.
- It can hold an indefinite quantity of data.
- Sessions are secured.
- Session save data in encrypted form.
- Session stored an unlimited data.

### (9) What are the components of a HTTP Response?

10

Momina Farooq.

S24.

045247.

Date: 16<sup>th</sup> Oct, 2022.

HttpResponse broadly has 3 main components:

- Status Line.

- Headers.

- Body (Optional).

A status line or start line describes the message, a block of headers contains attributes and an optional body contains data.

(10) What is the benefit of N-tier architecture?

There are several benefits of using n-tier architecture for your software. These are

- Scalability.

- ease of management.

- flexibility.

- security.

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Long Q-Ans.

(1) What are the differences between a Servlet and JSP?

(Already done in past paper 2015 Q9).

(a) What do you mean by request dispatcher and send redirection?

### • Request Dispatcher :-

The RequestDispatcher interface allows you to do a server side forward / include whereas sendRedirect() does a client-side redirect.

### • Send Redirection :-

SendRedirect() will search the content between the servers. It is slow because it has to intimate the browser by sending the URL of the content, then browser will create a new request for the content within the same server or in another one.

RequestDispatcher is for searching the content within the server. It's the server-side process and it is faster compare to the sendRedirect() method but the thing is it will not intimate the browser in which server is searching the required data or content, neither it will not ask the browser to change the URL in URL tab, so



Date: 16<sup>th</sup> Oct, 22.

Momina Farooq.  
524.  
045247.

it causes little inconvenience to the user.

(2) Write a servlet class which will dynamically create an ordered list of all items stored in database. Table contains two columns (Item Name, Number of Items).

DB Name: Database.

Table Name: Item(item\_name (varchar(50)),  
no\_of\_items (int)).

```
import java.io.*;  
import javax.servlet.*;  
import javax.servlet.http.*;  
import java.sql.*;  
public class display extends HttpServlet  
{  
  
    public void doGet (HttpServletRequest req,  
        HttpServletResponse res) throws  
        IOException, ServletException  
    {  
  
        PrintWriter out = res.getWriter();  
        res.setContentType("text/html");  
        out.println("<html><body>");
```

Momina Farooq.

S24.

045247.

Date: 16<sup>th</sup> Oct, 22.

try {

Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");

Connection con = DriverManager.getConnection  
("jdbc:odbc:mydsn", "system", "pintu");

// Here dsnname-mydsn, userid-system (for oracle 10g),  
password is pintu.

Statement stmt = con.createStatement();

ResultSet res = stmt.executeQuery("select \*  
from Database");

out.println("<table border=1 width=50%  
height=50% >");

out.println("<tr><th>Items Name </th>  
<th>NO of items </th> </tr>");

while (rs.next())  
{

String n = rs.getString("items-Name");

int nm = rs.getInt("no\_of\_items");

out.println("<tr><td>" + n + "</td><td>"  
+ nm + "</td><td>" + "</td></tr>");

}

out.println("</table>");

out.println("</html></body>");

con.close();

}



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Date: 16<sup>th</sup> Oct, 2022.

524-  
045247.

```
catch (Exception e)
{
    out.print ("error");
}
}
}.
```

(3) Write a JSP page, which will dynamically create a table with politician's information stored in the database. Table contains two columns (Politician Name, Politician current Party Name).

(Politician DB Name : Database.

Table Name : Politician (pol\_Name (varchar (50) ), pol\_Party (varchar (50) )

```
< % @ 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";
```

Momina Farooq.

S24-

045247.

Date: 16<sup>th</sup> Oct. 2022.

```
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><td>pol Name </td>:
<td> pol Party </td>
</tr>
</table>
<%
try {
    connection = DriverManager.getConnection(connectionUrl +
        database, userid, password);
    statement = connection.createStatement();
    String sql = "select pol-Name, pol-Party
        from Politician";
    resultSet = statement.executeQuery(sql);
```

Momina Farooq.

524.

045247.

Date: 16<sup>th</sup> Oct, 2022.

```
while (resultSet.next()) {
```

```
%>
```

```
<tr>
```

```
<td> <% = resultSet.getString("pol-Name") %> </td>
```

```
<td> <% = resultSet.getString("pol-Party") %> </td>
```

```
</tr>
```

```
<%
```

```
}
```

```
connection.close();
```

```
} catch (Exception e) {
```

```
e.printStackTrace(); }
```

```
%>
```

```
</table>
```

```
</body>
```

```
</html>
```