1. First Servlet

ServletTest.java

```java
Package com.servlet;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.Date;
import jakarta.servlet.Servlet;
import jakarta.servlet.ServletConfig;
import jakarta.servlet.ServletException;
import jakarta.servlet.ServletRequest;
import jakarta.servlet.ServletResponse;

public class servletTest implements Servlet {

    @Override
    public void destroy() {
        System.out.println("destroy() method is called");
    }

    @Override
    public ServletConfig getServletConfig() {
        return null;
    }

    @Override
    public String getServletInfo() {
        return null;
    }

    @Override
    public void init(ServletConfig config) throws
        ServletException {
        System.out.println("init() method is called");
    }
```

```java
@Override
public void service (ServletRequest req, ServletResponse res)
throws ServletException, IOException {
    System.out.println(" service () method is called ");

    PrintWriter out = res.getWriter();
    res.setContentType("text/html");
    out.print("<h2><b> welcome to my site</b></h2>");
    out.println("<h1>" + new Date().toString() + "</h1>");
}
}
```

web.xml

```xml
<?xml version="1.0" encoding="UTF-8"?>
<web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="https://jakarta.ee/xml/ns/jakartaee"
    xmlns:web="http://xmlns.jcp.org/xmlns javaee" version="5.0">
    <display-name>FirstServlet</display-name>

    <servlet>
        <servlet-name>first</servlet-name>
        <servlet-class>com.servlet.ServletTest</servlet-class>
    </servlet>

    <servlet-mapping>
        <servlet-name>first</servlet-name>
        <url-pattern>/app</url-pattern>
    </servlet-mapping>

    <welcome-file-list>
        <welcome-file>index.html</welcome-file>
        <welcome-file>index.jsp</welcome-file>
        <welcome-file>index.htm</welcome-file>
        <welcome-file>default.html</welcome-file>
        <welcome-file>default.jsp</welcome-file>
        <welcome-file>default.htm</welcome-file>
    </welcome-file-list>

</web-app>
```

Index.html

```html
<!DOCTYPE html>
<html>
<head>

<meta charset="ISO-8859-1">
<title>Fint App</title>
</head>
<body>

    <h1> Welcome to my App </h1>
    <a href="app"> click me </a>
</body>
</html>
```

Welcome to my app

[Click me](#)

Welcome to my site

Fri Mar 28 15:49:59 NPT 2025

2. GenericServletProject

GenericTest.java

```java
package com.GenericServletProject;
import java.io.IOException;
import java.io.PrintWriter;
import jakarta.servlet.GenericServlet;
import jakarta.servlet.ServletException;
import jakarta.servlet.ServletRequest;
import jakarta.servlet.ServletResponse;
public class GenericTest extends GenericServlet {
    @Override
    public void service(ServletRequest req, ServletResponse res)
    throws ServletException, IOException {

        PrintWriter out = res.getWriter();
        res.setContentType("text/html");
        out.print("<h2> <b> welcome to my site </b></h2>");

    }

}
```

web.xml

```xml
<?xml version="1.0" encoding="UTF-8"?>
<web-app xmlns:xsi="http://www.w3.org/2001/xmlns schema-
instance" xmlns="https://jakartaee/xml/ns/jakartaee">

  <display-name> GenericServletProject </display-name>

  <servlet>
     <servlet-name>first</servlet-name>
     <servlet-class> com.GenericServletProject.GenericTest
              </servlet-class>
  </servlet>

  <servlet-mapping>
      <servlet-name>first</servlet-name>
      <url-pattern>page</url-pattern>
  </servlet-mapping>

  <welcome-file-list>
     <welcome-file> index.html </welcome-file>
     <welcome-file> index.jsp </welcome-file>
     <welcome-file> index.html </welcome-file>
     <welcome-file>default.html </welcome-file>
     <welcome-file> default.jsp </welcome-file>
     <welcome-file>default.html </welcome-file>
  </welcome-file-list>
</web-app>
```

index.html

```html
<!DOCTYPE html>
<html>
    <head>
        <meta charset="ISO-8859-1">
        <title>Generic Servlet Test Project</title>
    </head>
    <body>
        <h2>Hello Everyone</h2>
        <a href="page">Home</a>
    </body>
</html>
```

Hello Everyone

[Home](#)

Welcome to my site

1. HttpServletProject

HttpServletTest.java

```java
package com.Httpservlet;

import java.io.IOException;
import java.io.PrintWriter;
import jakarta.servlet.ServletException;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;

public class HttpServletTest extends HttpServlet {
    @Override
    protected void doGet(HttpServletRequest req,
        HttpServletResponse res) throws ServletException,
        IOException {

        PrintWriter out = res.getWriter();

        res.setContentType("text/html");

        String path = req.getRequestURI();

        if (path.contains("/page1")) {
            out.write("<h1>This is page 1 </h1>");
        } else if (path.contains("/page2")) {
            out.write("<h1> This is page 2 </h1>");

        } else {
            out.write("<h1> Invalid Page </h1>");

        }
    }
}
```

web.xml

```xml
<?xml version ="1.0" encoding ="UTF-8"?>
<web-app xmlns:xsi="http://www.w3.org/2001/XminsSchema-
Instance." version="5.0">
    <display-name>HttpServletProject</display-name>
    <servlet>
      <servlet-name>first</servlet-name>
      <servlet-class>com.HttpServlet.HttpServletTest</servlet-
                                           class>
    </servlet>

    <servlet-mapping>
      <servlet-name>first</servlet-name>
      <url-pattern>/page1</url-pattern>
    </servlet-mapping>

    <servlet-mapping>
      <servlet-name>first</servlet-name>
      <url-pattern>/page2</url-pattern>
    </servlet-mapping>
    <welcome-file-list>
      <welcome-file>index.html</welcome-file>
      <welcome-file>index.jsp</welcome-file>
      <welcome-file>index.html</welcome-file>
      <welcome-file>default.html</welcome-file>
      <welcome-file>default.jsp</welcome-file>
      <welcome-file>default.html</welcome-file>
    </welcome-file-list>
</web-app>
```

Index.html

```html
<!DOCTYPE html>
<html>
    <head>
        <meta charset="ISO-8859-1">
        <title> Http Servlet Project</title>
        <link>
    </head>
    <body>
        <h1> Hello Everyone </h1>
        <a href="page1">Home </a>
        <a href="page2">Menu </a>
    </body>
</html>
```

Hello Everyone

Home Menu

This is page 1

This is page 2