

# Servlet

## Create Dynamic-web-application

Eclipse, navigate tomcat, new project => Dynamic Web project  
(with web.xml)

New Html (index.html)

(automatically placed within WebContent)

```
<form action="add">  
  First Num: <input type="text" name="num1"/><br>  
  Secound Num:<input type="text" name="num2"/><br>  
  <input type="submit"/>  
</form>
```

Start tomcat

When opens index.html

Browser starts with index.html url

<http://localhost:8080/firstDinamicWeb/index.html>

First num :

Secound num :

My project Name



After submit url changes

<http://localhost:8080/firstDinamicWeb/add?num1=2&num2=3>

form action="add", input name="num1", "num2"

so page not fount 404

New class (AddServlet.java)

(automatically placed within javaResource/src/package/)

```
public class AddServlet extends HttpServlet{
    @Override
    public void service(HttpServletRequest req, HttpServletResponse resp){
        int i = Integer.parseInt(req.getParameter("num1"));
        int j = Integer.parseInt(req.getParameter("num2"));

        int k = i + j;

        System.out.println("the sum is "+k);
    }
}
```

Now we need to map that url with this servlet

Use web.xml (deployment descriptor)

```
<servlet>
    <servlet-name>add</servlet-name>
    <servlet-class>com.firstDinamicWeb.servlet.AddServlet</servlet-class>
</servlet>
<servlet-mapping>
    <servlet-name>add</servlet-name>
    <url-pattern>/add</url-pattern>
</servlet-mapping>
```

just linker can be any same name

<http://localhost:8080/firstDinamicWeb/add?num1=2&num2=3>

```
HttpServletRequest req
req.getParameter("num1")
```

To display result at browser (Making page for that /add link)

Alt+Shift+L => create variable in eclipse

```
PrintWriter writer = resp.getWriter();
writer.println("output is :"+k);
```

All type Http methods can Reach servlet service() method

```
public void service(HttpServletRequest req, HttpServletResponse resp){

<form action="/add" by default it is Get: /add>
    First Num: <input type="text" name="num1"/><br>
```

## In order to Specific accessible http method

```
public class AddServlet extends HttpServlet{
    public void doGet(HttpServletRequest req, HttpServletResponse resp){
    public void doPost(HttpServletRequest req, HttpServletResponse resp){
    public void doDelete(HttpServletRequest req, HttpServletResponse resp){
    public void doPut(HttpServletRequest req, HttpServletResponse resp){

    web.xml
    <form action="add" method="post">
    First Num: <input type="text" name="num1"/><br>
```

In above post case url will be

<http://localhost:8080/firstDinamicWeb/add>

number potion won't be there

## Calling one Servlet form another Servlet

There is two way

Request Dispatcher

Redirect

```
public class AddServlet extends HttpServlet{
    @Override
    public void doPost(HttpServletRequest req, HttpServletResponse resp){
        RequestDispatcher rd = req.getRequestDispatcher("sqr");
        rd.forward(req, resp);

    public class SqrtServlet extends HttpServlet{           (web.xml /sqr is there)
        @Override
        public void doGet(HttpServletRequest req, HttpServletResponse resp){
        @Override
        public void doPost(HttpServletRequest req, HttpServletResponse resp){
```

But doPost() calls doPost()

If there is no matching no methods will be called (no display)

## Parsing data one Servlet to another Servlet

### Session management

Request dispatcher going to forward my req

Before that we setAttribute

```
public class AddServlet extends HttpServlet{
    @Override
    public void doPost(HttpServletRequest req, HttpServletResponse resp){

        req.setAttribute("key", k);

        RequestDispatcher rd = req.getRequestDispatcher("sqr");
        rd.forward(req, resp);
    }
}
```

### GetAttribute from other Servlet

```
public class SqrtServlet extends HttpServlet{
    @Override
    public void doPost(HttpServletRequest req, HttpServletResponse resp){
        int k = (int) req.getAttribute("key");
    }
}
```

## Req, Resp Objects

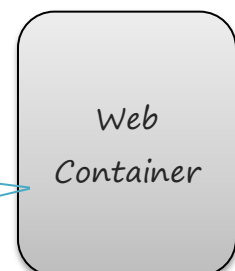
<http://localhost:8080/firstDinamicWeb/index.html>

First num :

Secound num :

```
<form action="add" method="get">
http://localhost:8080/firstDinamicWeb/add?num1=2&num2=3
<form action="add" method="post">
http://localhost:8080/firstDinamicWeb/add num1=2&num2=3
```

Creates req, resp objects



web.xml

com.firstDinamicWeb.servlet.AddServlet ↔ /add

```
public class AddServlet extends HttpServlet{
    @Override
    public void doPost(HttpServletRequest req, HttpServletResponse resp){
        int i = Integer.parseInt(req.getParameter("num1"));
    }
}
```

# MVC

