



SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore - 641 107

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DEPARTMENT OF COMPUTER SCIENCE & TECHNOLOGY

Unit-10

Servlets - Server side programming

Server side program handles the request made by the client.

- act as a link between backend database & front end client side programming

Technologies: Servlet, JSP, ASP.NET, PHP

Difference between client side & server side scripting

Server side scripting

- ① The server side scripting is used to create the web pages that provide some services
- ② These scripts generally run on web servers
- ③ Ex: PHP, ASP.NET.

Client side scripting

The client side scripting is used to create the web pages as a request or response to server.

These scripts generally run on web browser

HTML, CSS, Javascript

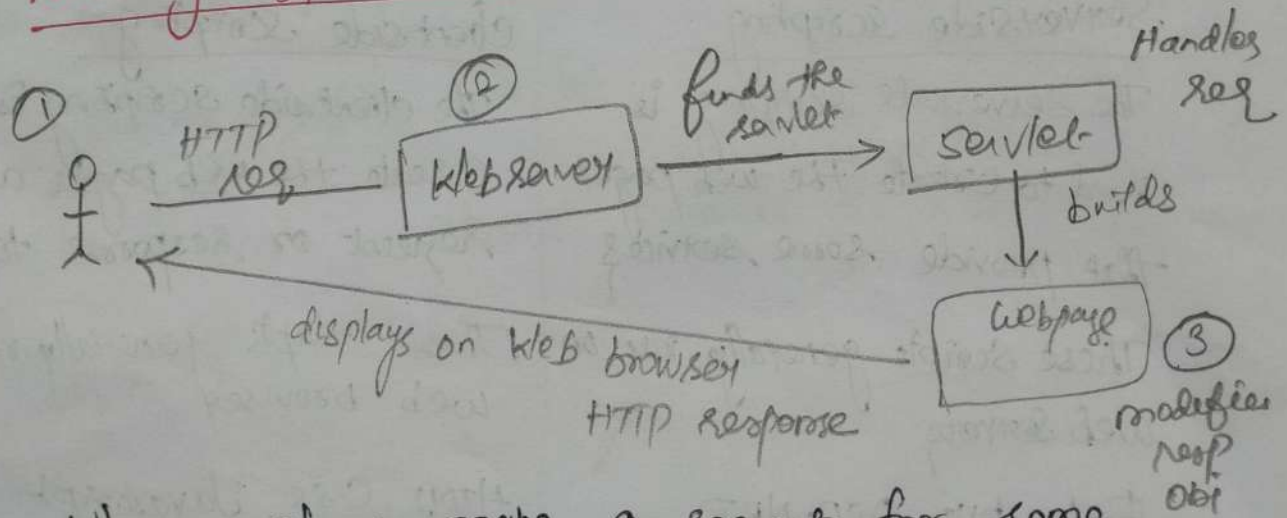
Java Servlets

Java programs that run on server

Server + applets

- Servlet class is instantiated when web server begins the execution
- The execution of servlet is managed by servlet container, such as tomcat is part of the web server
- Servlets - HTTP (* HTTP Servlet)

Working of Servlet



1. When a client make a request for some Servlet, uses web browser
2. web browser sends this req to web server. The web server first finds the requested servlet
3. the servlet gathers inf in order to satisfy the client's



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req, and builds web page
4. This web page is then displayed to the client. Thus the req made by the client gets satisfied by the servlets.

Servlets Packages

* Java servlets are java classes run by a web server has an interpreter

* java servlets can be created `javax.servlet` and `javax.servlet.http`

Structure of a Servlet

```
public class servletname extends HttpServlet {
```

```
    public void init() {
```

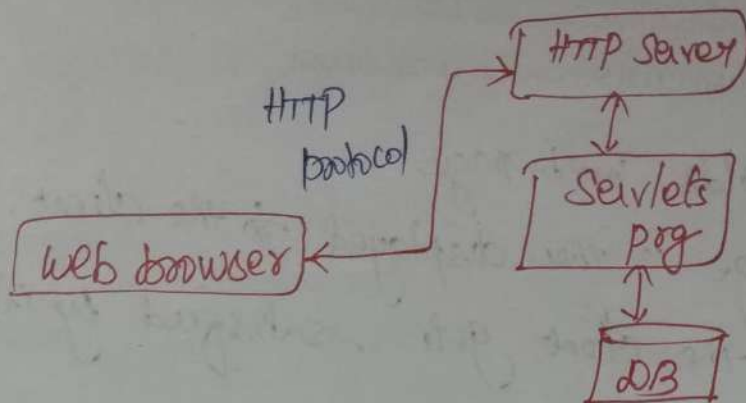
```
        //
```

```
    }  
    public void service() {
```

```
        //
```

```
    }  
}
```

Servlet - Architecture



Generic Servlet is predefined impl of servlet int.

HTTPServlet - is a child class of Generic class

```
import javax.servlet.*;
import java.io.*;
```

```
public class test extends
    GenericServlet { ... }
```

```
import javax.servlet.*;
import java.io.*;
```

```
public class test extends
    HttpServlet { ... }
```

HTTPServlet Methods

doGet	-	handles the HTTP-GET req
doPost	-	"
doPut	-	"
doDelete	-	"

Life cycle

Life cycle of servlet, 3 important methods

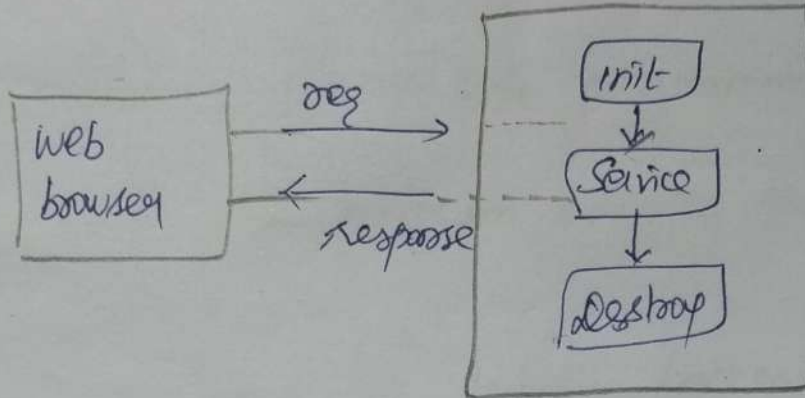
1. Init 2. Service 3. Destroy



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The client enters the URL in the web browser & makes a req. The browser then generates the HTTP request and sends it to the web server.

1. `init()` - Invokes the `init()` method.
Servlet is loaded in the memory for the first time.
2. `Service()` - invoke the service for particular HTTP req, using `service()` method.
3. `destroy()` - Server unloads the Servlet from the memory using the `destroy()` method.