How to create servlet using javax.servlet.Servlet Interface
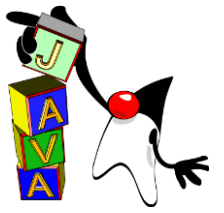
User defined class
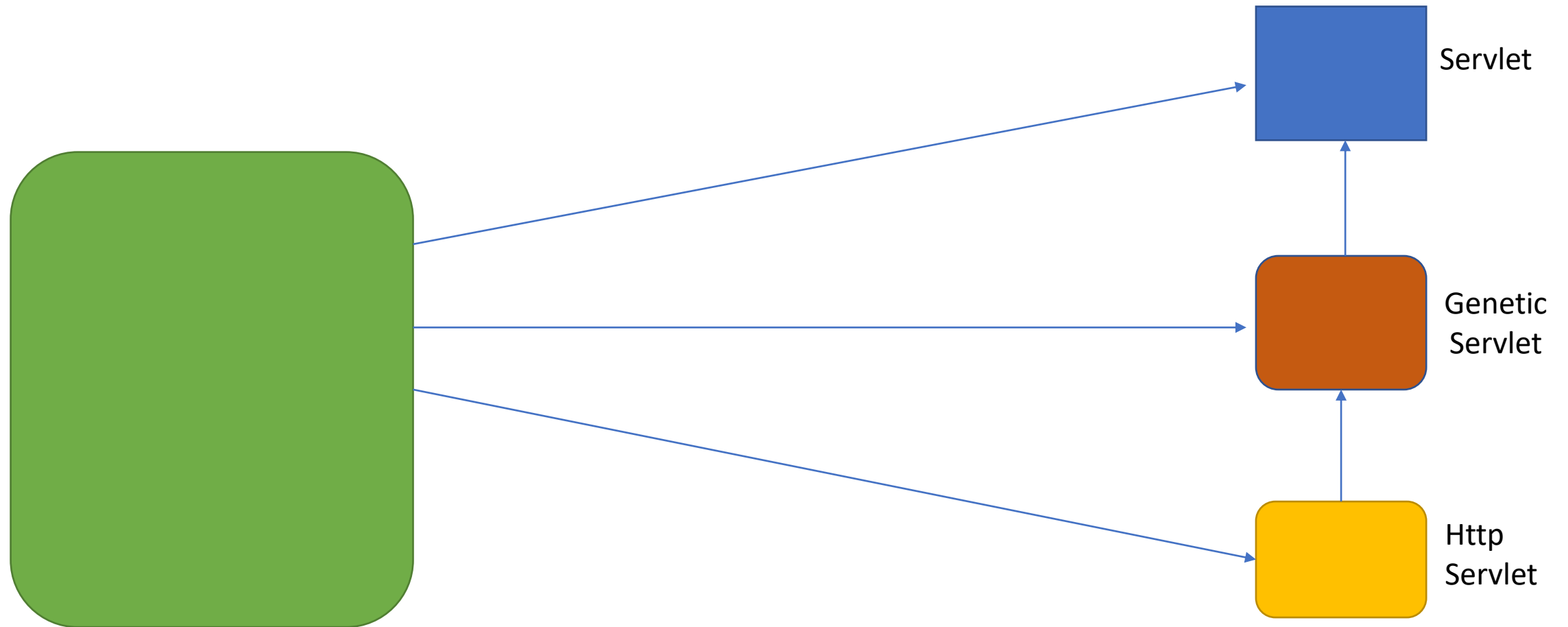
class MyServlet implements Servlet
{

Override all methods

}

1) public abstract void init(javax.servlet.ServletConfig)

2) public ServletConfig getServletConfig();

3) public void
      service(javax.servlet.ServletRequest,
      javax.servlet.ServletResponse)

4) public abstract java.lang.String getServletInfo();

5) public abstract void destroy();
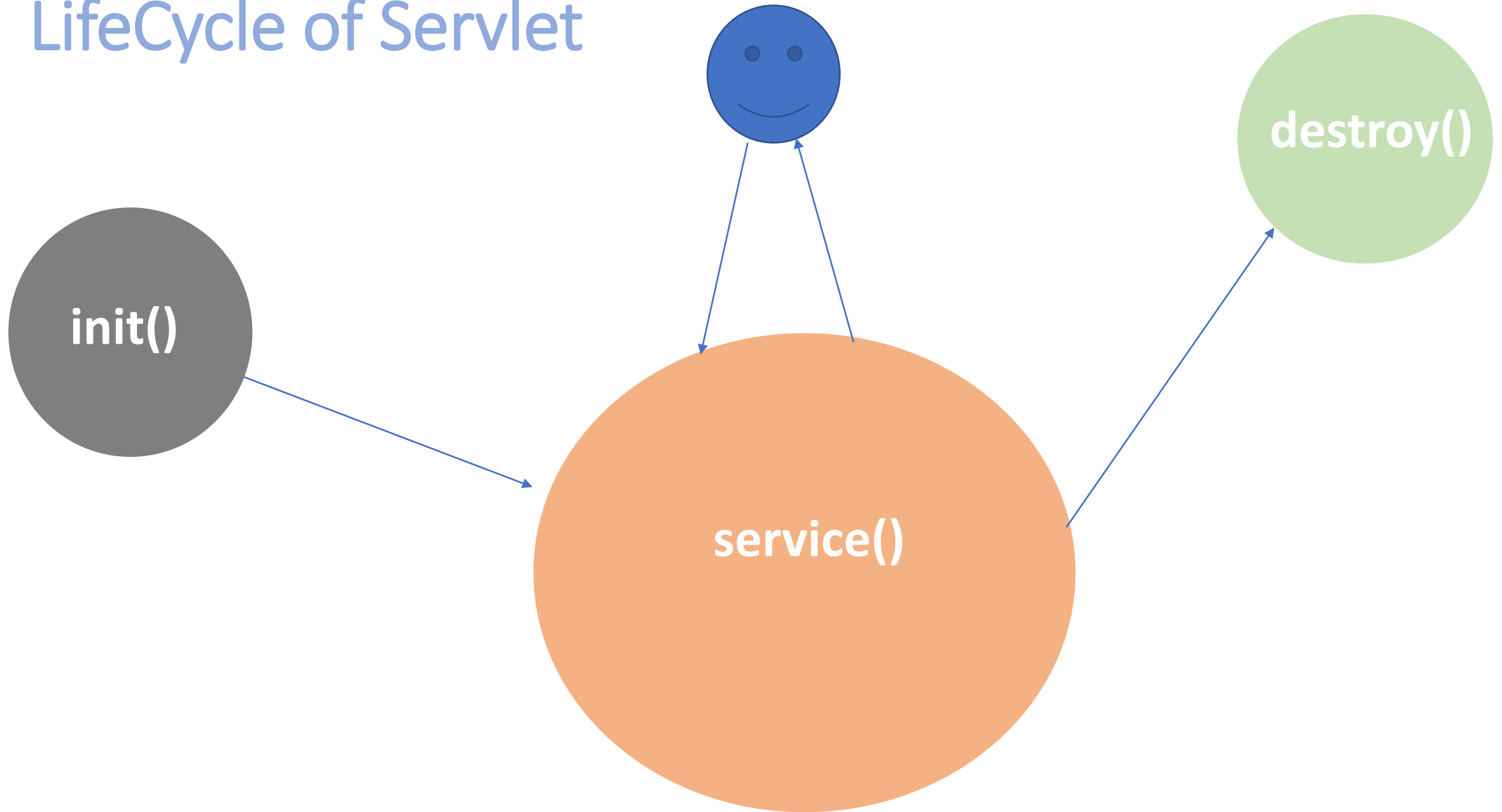
Servlet interface

Creating Servlet using HttpServlet

Used to create http protocol specific servlet

Servlet

Genetic Servlet

Http Servlet

LifeCycle of Servlet

init()

service()

destroy()

Welcome file and Welcome file list

- **\<web-app>**

- ....

-

-   **\<welcome-file-list>**

-    **\<welcome-file>**home.html**\</welcome-file>**

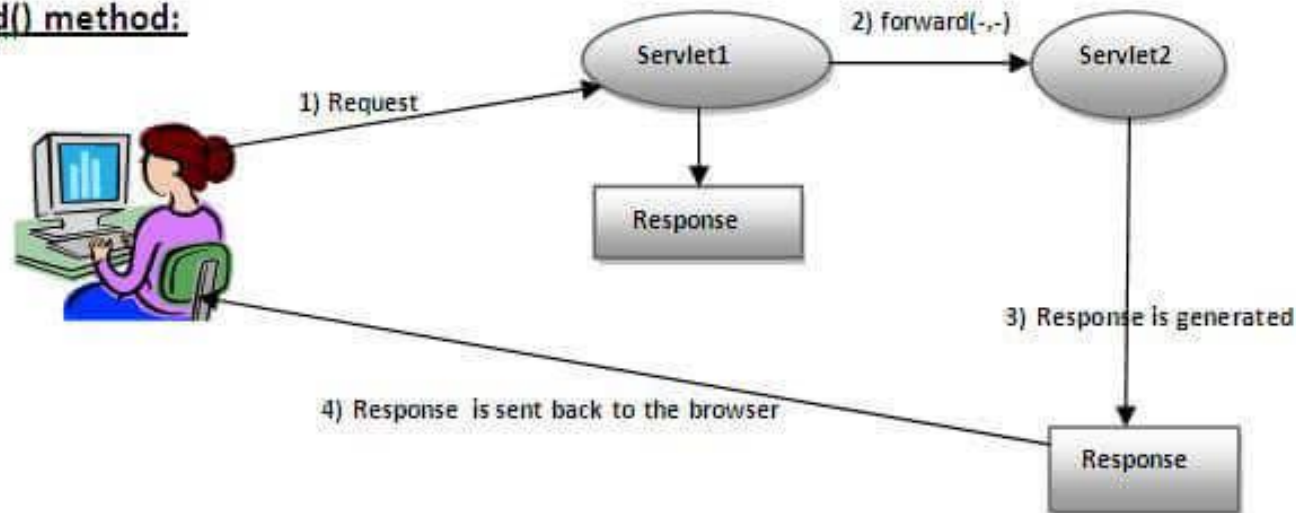-   **\<welcome-file>**default.html**\</welcome-file>**

-   **\</welcome-file-list>**

- **\</web-app>**

load on startup

- **It loads the servlet at time of deployment if value is positive.**
- **<servlet>**
- **<servlet-name>**servlet1**</servlet-name>**
- **<servlet-class>**FirstServlet**</servlet-class>**
- **<load-on-startup>**0**</load-on-startup>**
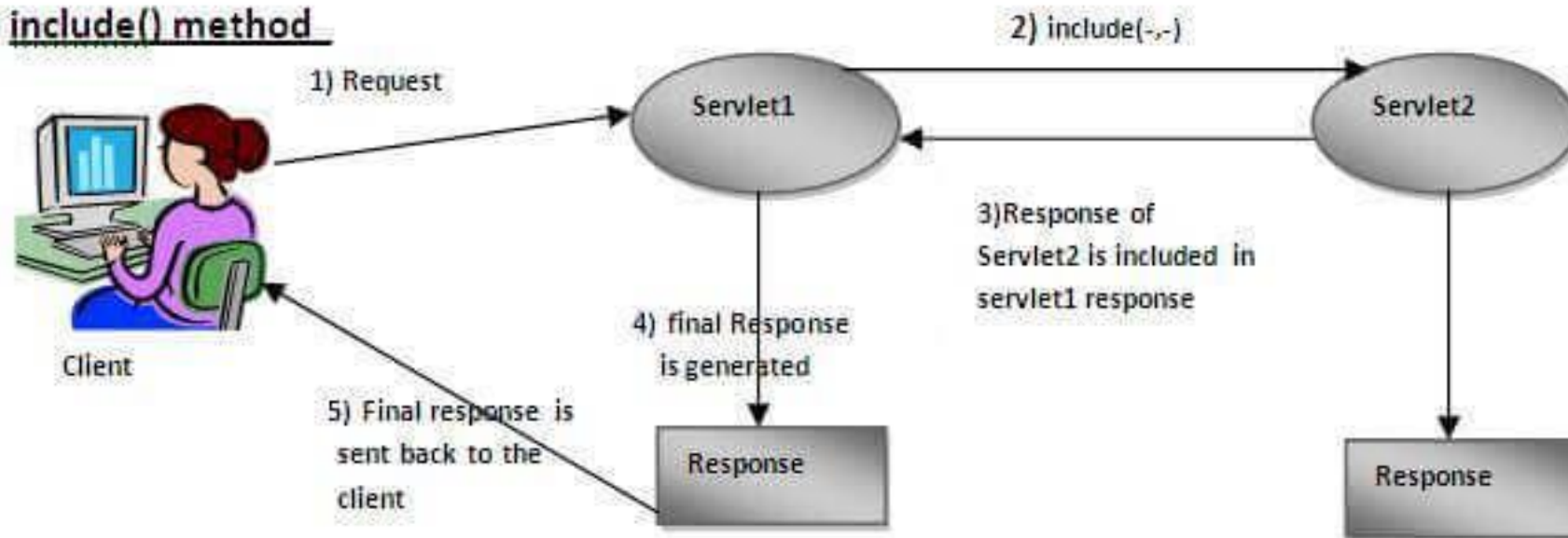- **</servlet>**

RequestDispatcher

- **It is responsible for dispatching the request to another resource it may be html, servlet or jsp.**

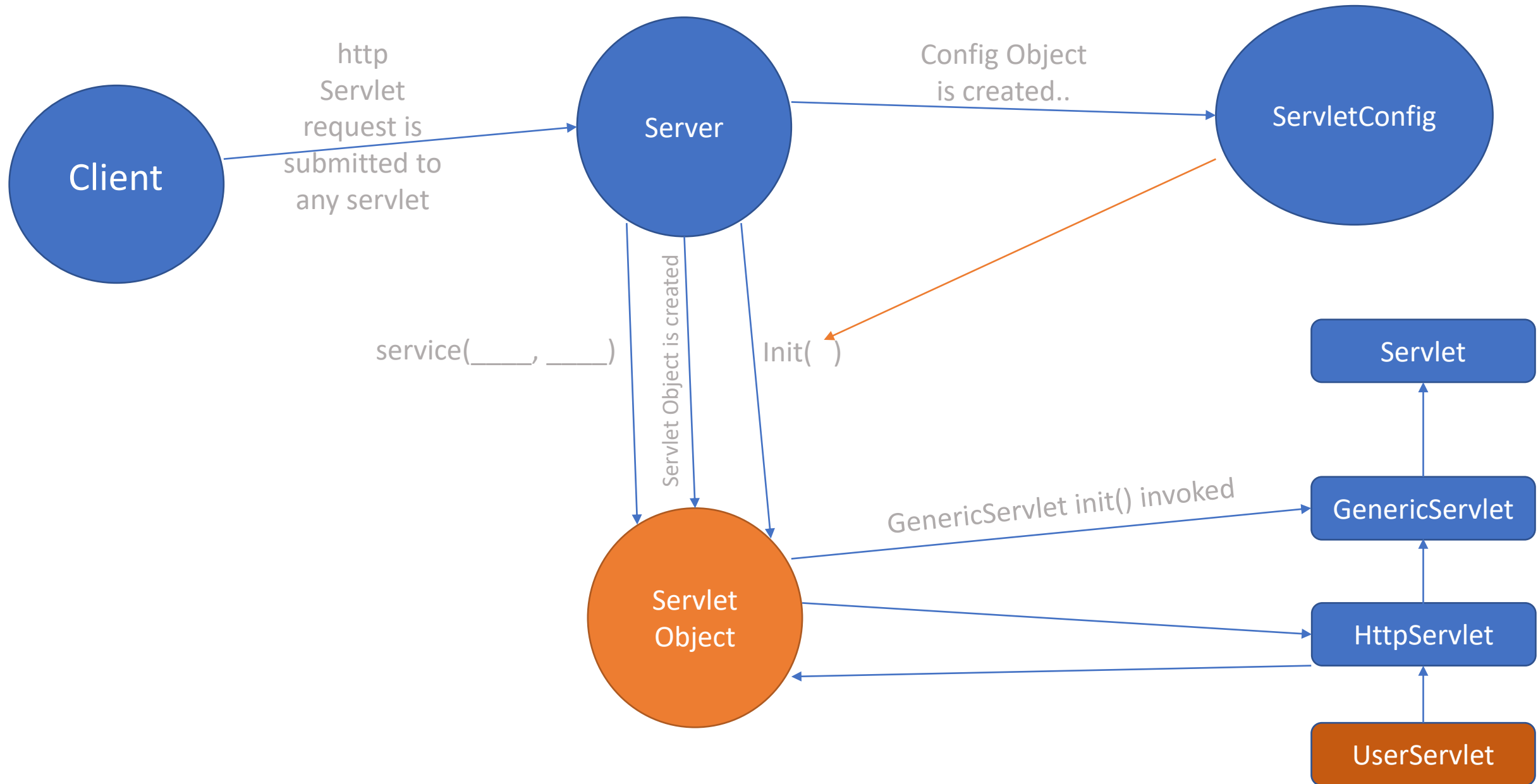forward() method:

include() method

1) Request

2) include(-,-)

Servlet1

Servlet2

3)Response of Servlet2 is included in servlet1 response

4) final Response is generated

Client

5) Final response is sent back to the client

Response

Response

Internal Working of Servlet

Client

http
Servlet
request is
submitted to
any servlet

Server

Config Object
is created..

ServletConfig

service(_____, _____)

Servlet Object is created

Init( )

Servlet

GenericServlet init() invoked

GenericServlet

Servlet
Object

HttpServlet

UserServlet

Deployment Descriptor

- File that contains configuration of your java web application.
- It resides in the WEB-INF folder.

```
<web-app>
            servlet declaration
            servlet-mapping
            initialization parameter
            welcome file config
            filter
            listener
            session config
            etc………………….

</web-app>
```

Parameters and attributes in servlet

- Parameters – These are those values which are provided by **user** to any **servlet** to process the request during the request operation.

- Servlet only **read** that value for request processing.

- Parameter mostly **Data send using form** , **initialization parameter** etc.

- How to get initialization parameter:

- String name= request.getParameter("name_of_your_parameter");

- Now process you request.

Parameters and attributes in servlet

- Attributes- these are the objects that are attached by one servlet to object (session , request , config ,context etc) and other servlet can fetch that object to process to logic.

- Servlet can easily modify , add and remove the content of attribute when required.

- How to perform operation with attributes:
    - setAttribute(String name,String value)
    - Object value=getAttribute(String name)
    - removeAttribute(String name)

Cookies in Servlet

- **Cookies are the textual information which are stored in key value pair format to the client's browser during multiple requests.**

How to use Cookies in Java

- In order to use cookies in java, there is a **Cookie** class in java present in **javax.servlet.http** package.

- To make cookie just create a object of **Cookie** class and pass name and its value.

How to add Cookie to reponse

- To add cookie in response just use **addCookie(Cookie)** method of response interface.

How to get Cookie from request.

- Use **getCookies()** method of **ServletRequest** Interface it returns **Cookie[]** array.