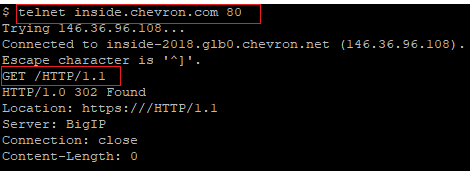
# WEB

# HTTP





What does [GET / HTTP/1.1] mean

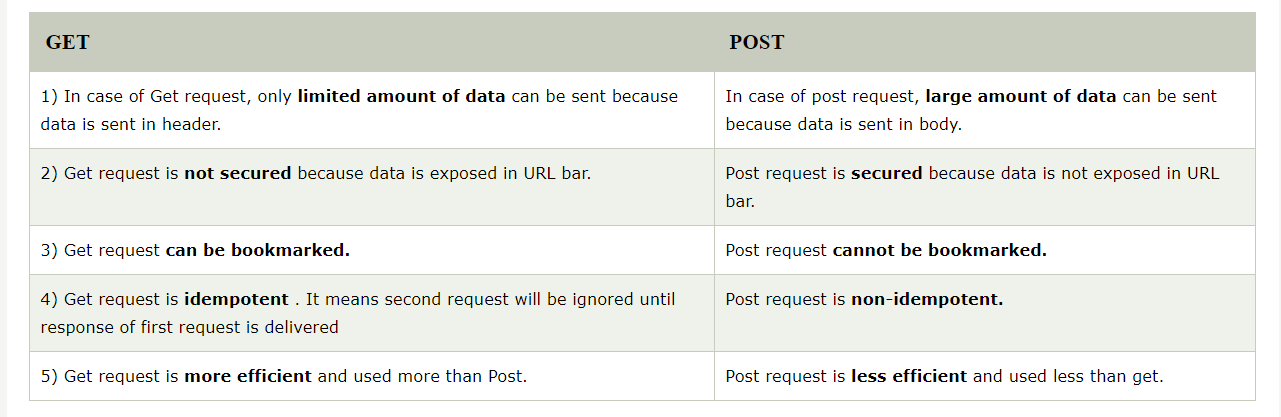
* **GET** – you instruct that you send GET request
* **/** - use this page
* **1.1** -use 1.1 version of HTTP protocol

**HTTP Methods** are instructions to the web server what to do with the resource you are requesting.

<https://www.javatpoint.com/get-vs-post>

There are 5

* **GET** – is not secured. It’s limited by length, because data is sent in header
* **POST** – update the resources. It is slow, compared to [get], because data is semt in body. But it’s secured
* **PUT** -set the content. It’s confusing when use PUT and POST. A rule is – when update existing content need to use POST when a new then PUT
* **DELETE** - remove the requested resources
* **HEAD** - is similar to GET. A difference is that it’s just returns code and headers. It can be used to verify that big resource exists without the need to download it. If the client previously downloaded the resource it can check the [last-modifier] header, which will allow the client to see it has most up to date copy



# SERVLET

**Servlet** is a Java class that extends HttpServlet and file definitions for build web application for use on the JVM

Servlet defines that web application uses a ***deployment descriptor*** that is called **web.xml**.

Web.xml is located under path [webapp/WEB-INF/web.xml]

Deployment descriptor(web.xml) defines:

* Servlets
* And how they are configured and used by servlet container

Deployment descriptor(web.xml) has 2 parts

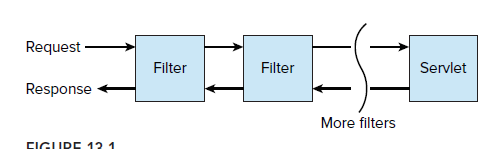
* Filters and mapping
* Servlet and mapping

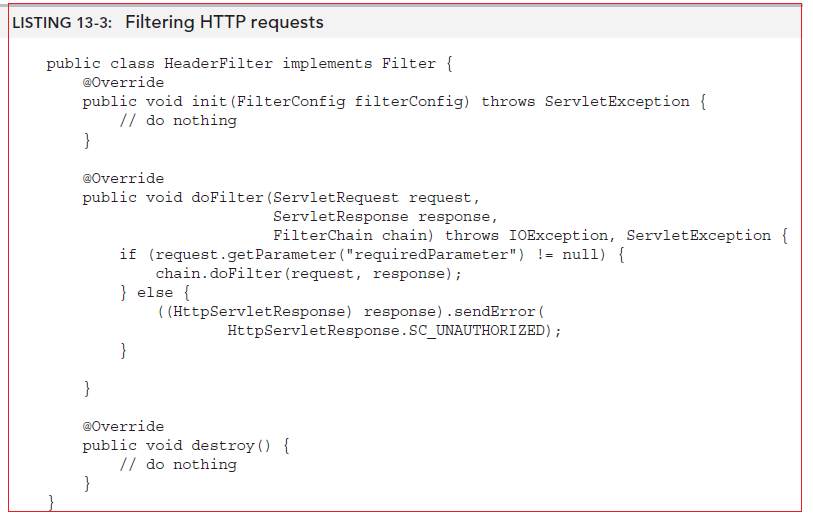
# FILTER INTERFACE

Filter interface define 3 methods

* init()
* doFilter(…) – it gives the filter opportunity to inspect request and decide whether reject request or allow it to go forward
* destroy()

note: you can have a few filters





# WAR FILE

**WAR file** – is **W**eb **Ar**chive file. It’s specifically used for creating web app

# WEBSERVER

There are a few popular Web Servers:

* *Tomcat*- lightweight
* *Jetty* – lightweight. You can create and run servers with no configuration (just use default) for [GET] request. For other, like [POST],[PUT] you need to config it
* *Play Framework* –is a new web server that does not use servlet technologies
* *WebLogic* – for big projects

# TOMCAT

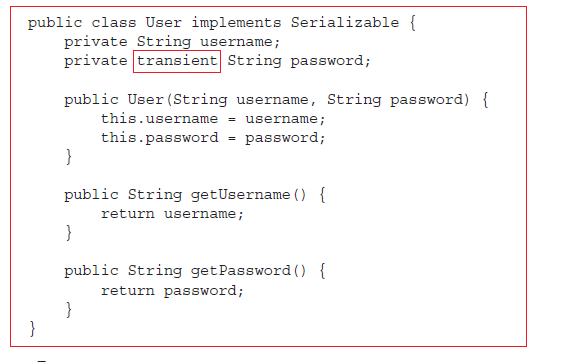
Tomcat is built from several components, including one for servlet container and one for processing JSP.

* Servlet container is called **Catalina**
* JSP is called **Jasper**

# SERIALIAZATION

Serialization – is a way of “exporting” Java objects from the JVM. The serialized data can be written to disk or another I/O interface rather than to the network

**Transient** is a key word. It means if you have serialized object, but have fields that do not want to be serialized when writing data to a stream, you can apply [transient] modifier to the field declaration. When a filed is a [deserialized], the field will be **null**.



**JSON** is a JavaScript Object Notation. It’s another serialization approach, similar to using XML and XSD. It uses a human readable approach which can be parsed by number of languages

**Jackson** -is a library for Java to parse JSON files