

Read - Computer Network

Date ____/____/____

Design this

H.W

Delhi City - Government Assignment

→ Design Comprehensive Traffic light System

Overview of design

The Traffic light system for delhi - City will consist of ~~strag~~ strategically placed traffic lights at intersections throughout the City. These traffic light will be intelligently controlled to manage the flow of vehicles and pedestrians efficiently.

'JDBC' (Servlet)

Servlet :

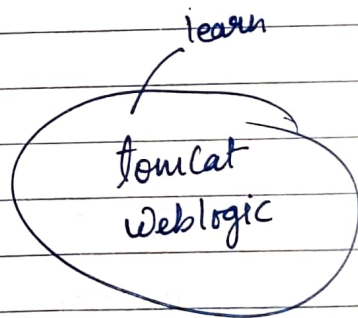
2 type of technologies -

- | |
|-----------------|
| (i) Web Server |
| (ii) App Server |

Deploy

(installing)

1005.96.121 → IP Add



→ Tomcat has it's own, Syntax, if you are upto own Code there, you should have the tomcat Code there in that file so it can understand. "Faith is the bird that feels the light when the dawn is still dark." - Rabindranath Tagor

→ Servlet implementation → Given to Tomcat.

ex

Demo.java to deploy on Tomcat

(must contain tomcat Syntax)

Learn Protocols →

Set of rules helps to carry ~~data~~ data

ex. TCP protocol

Server Side technology

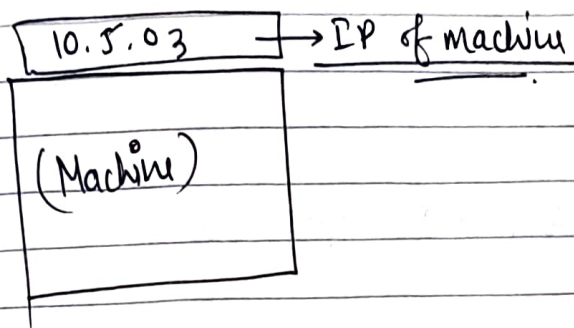
uses

TCP

* Tomcat contains two things

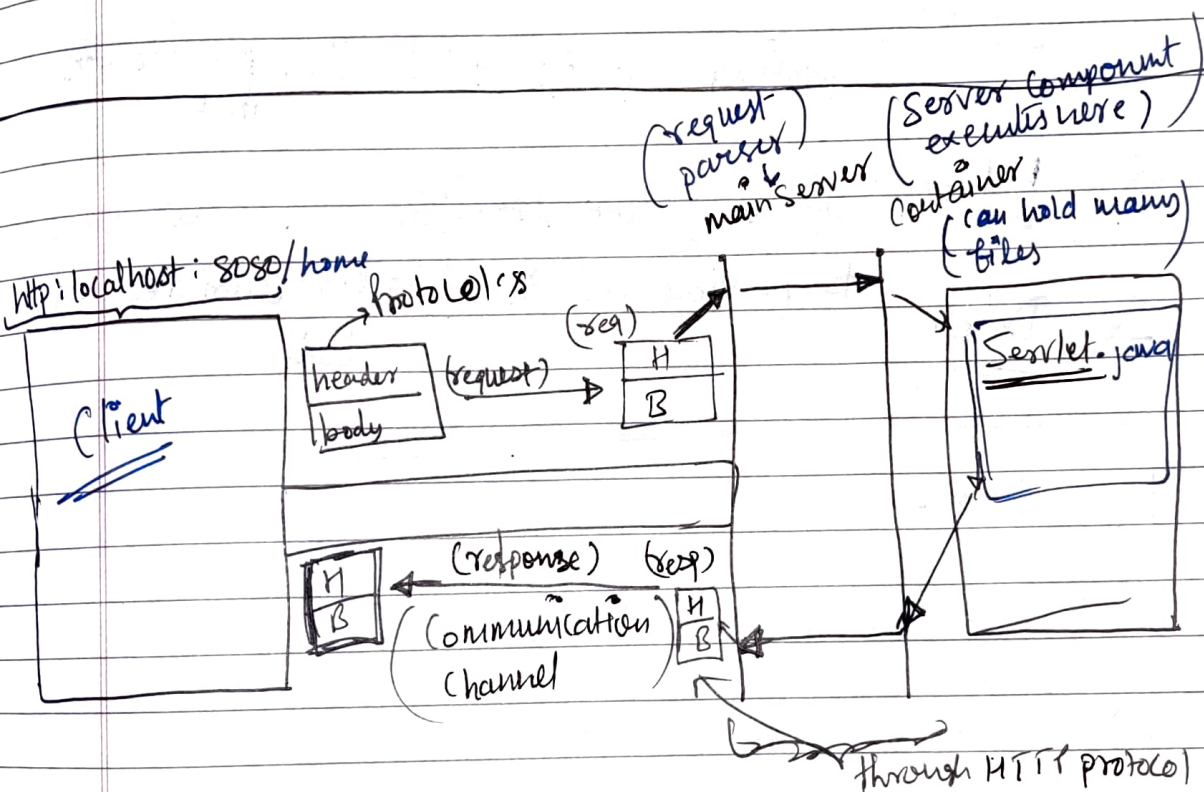
→ 1. main Server

2. Container (ex- Spring boot container etc)



→ ports are, from where machine listen

a ~~mas~~ machine contains several port's



- * There is a static request, hit to main server then it come back to the client, do not hit the container.
- * if requesting a server side then only hit to Servlet or container.
- * We have different containers for different server technologies.

HTTP - ProtoCol's

- Get → fetching data from DB
- Post → inserting data into DB
(state changes)
- Patch → (Updating specific detail then provide obj that)
- Put → (Updating any specific detail but have to provide all the detail's consisted by table)
- Delete →

1xx → Info

2xx → Success Info

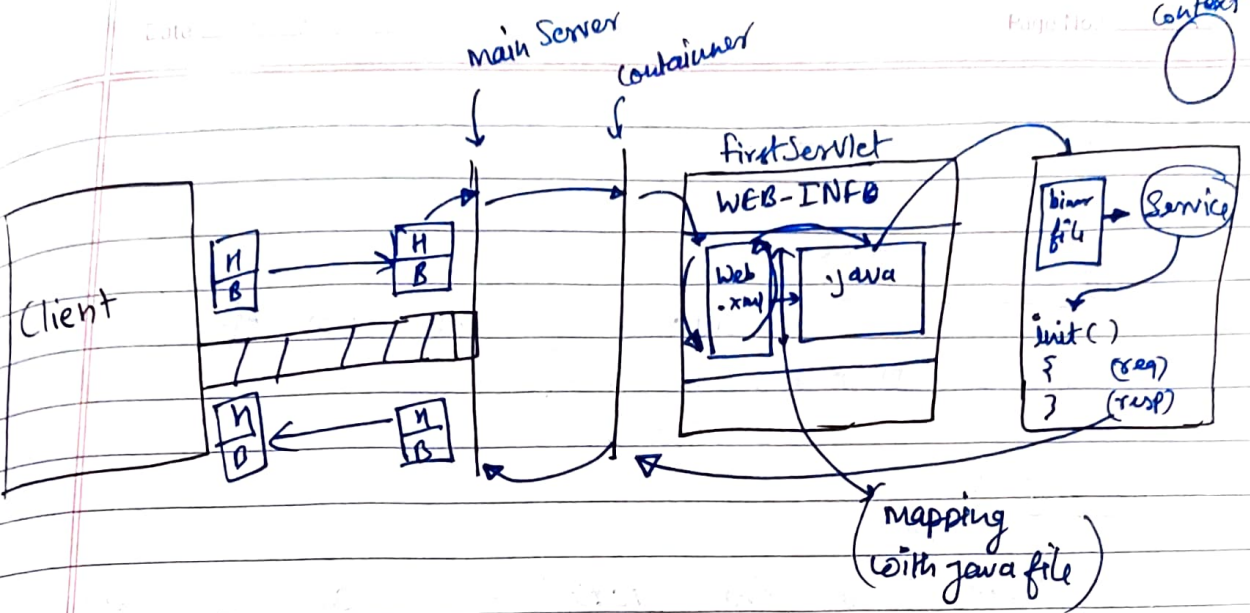
3xx → redirection

4xx → Client error

5xx → Server Side error

Learn - websocket

Servlet
Context



→ for every servlet file ~~there will be an~~ object will be created in Servlet Context.

→ Servlet instantiation → process till service

* Service Call's init method

- here you need ServletConfig
- you get this from getServletConfig()

(Read deployment descriptor
(web.xml))

(Stored in a object
in the form of configuration)

(This is Servlet Config)

→ Service () method acts as an entry point

→ getServletInfo()

Contains in the form of String,
all the info in .xml file.
(Servlet info)

→ Destroy()

(for explicit deleting)

Kills the channel

→ Close the Channel

→ When, it's in no use → unload the binary file
→ destroy the Servlet context
→ destroy req, resp objects

→ Servlet → interface → Have to implement all methods

→ GenericServlet → Class (Abstract)

↳ implements Servlet

↳ implement only the Service one

→ HTTPServlet

(Working with only http)

H.W

Application using Servlet and JDBC

* Save data to DB.

* Retrieve data and based on that provide the authentication authorization.

* Student management portal for the library access.

→ Login form → html & CSS

→ Detail's of student → design html page

→ Access page of library.

reading html
file

InputStream is = `getServletContext().getResourceAsStream(↓)` ^{file}
BufferedReader br = `new BufferedReader(new InputStoe(is))`;

String line = br.readLine();

Servlet redirection

moving from one Servlet to totally different Servlet.

^{must}
Some known point

→ Servlet redirection.

→ Setting up default page

→ Session & cookies (HttpSession)

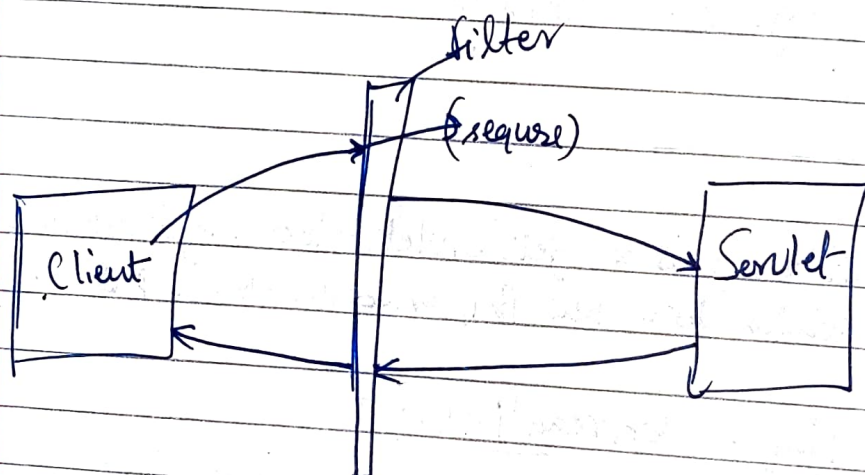
→ filter in Servlet.

(Key, Value pair)
(Stored at client side)

- * Session stored at Server side
- * Cookies store data in Key - Value pair and in small amount at Client side

filter's

it's a layer for making request and response sequence b/w two Servlet. / request or more than two.



Practice

- Given Code on Github
- Ashwari Sir.