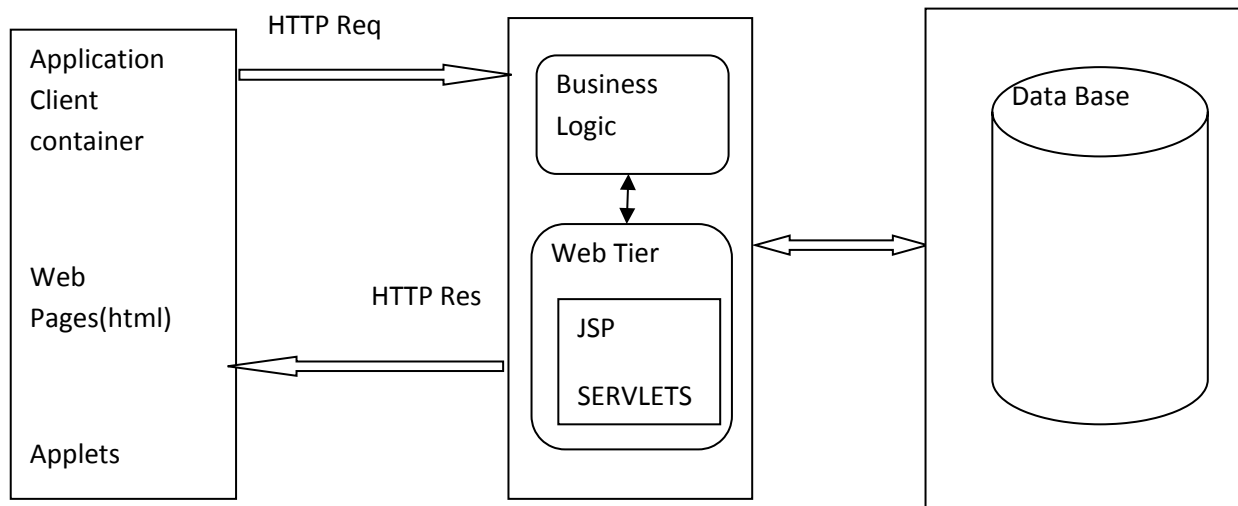# J2EE

JAVAEE – Java 2 Enterprise Edition

CLIENT SIDE   SERVER SIDE

Client Machine   J2EE server   DB SERVER

1. Client:- HTML , JavaScript running on be browser.
2. Server:-
   a. Tomcat
   b. Glassfish
   c. jBoss
   d. WebLogic
3. DataBase :-
   a. ORACLE
   b. MYSQL
   c. MSSQLSERVER
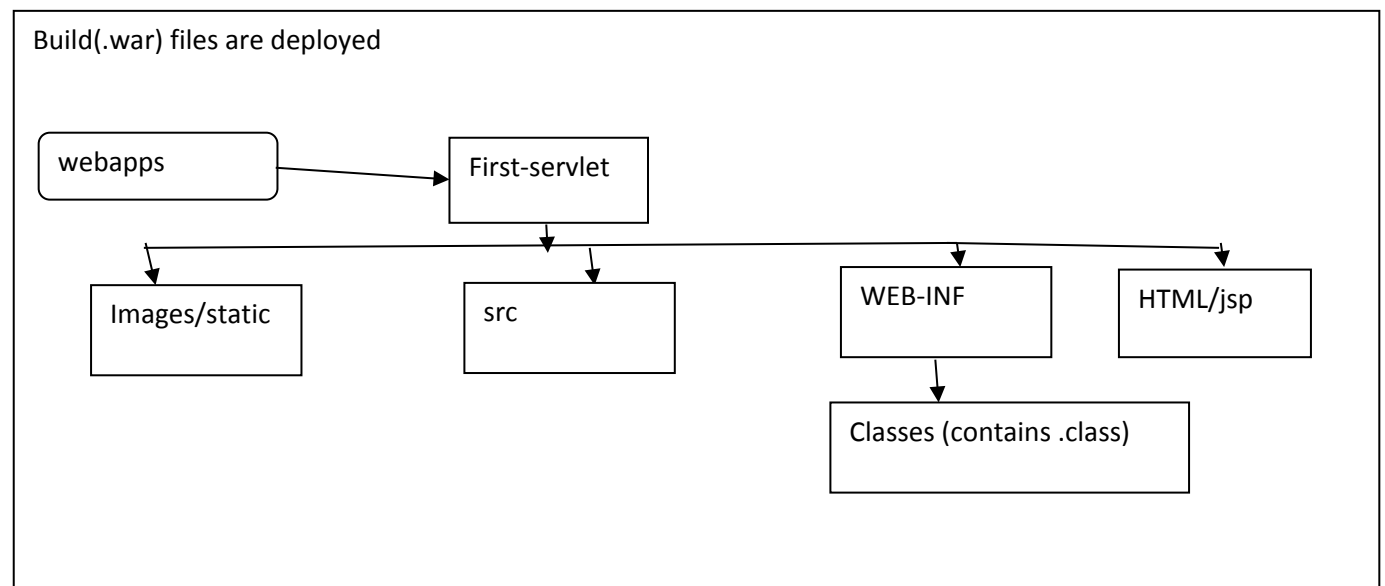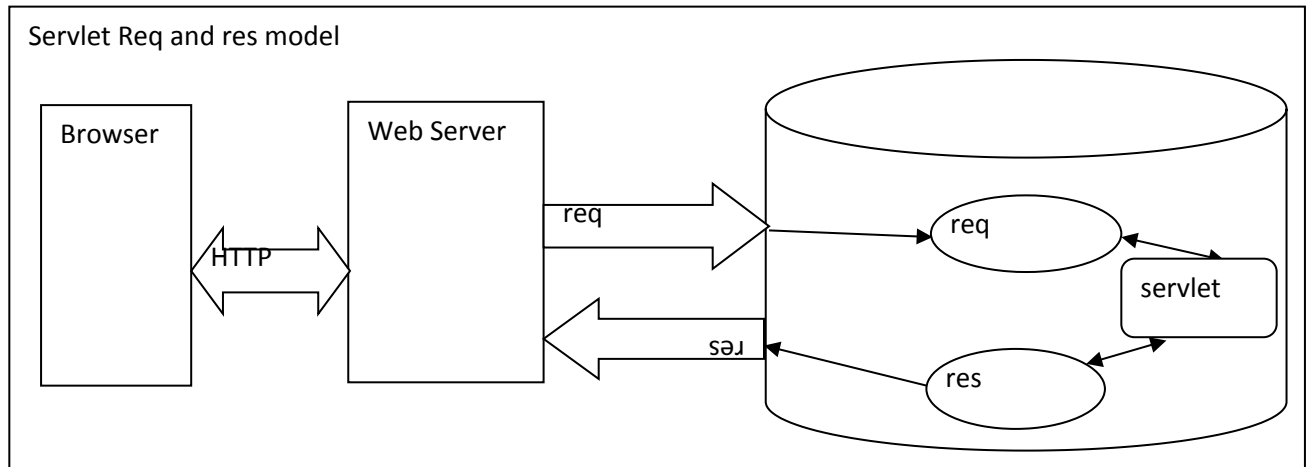
HTML :- Hyper Text Marking Language

TAGS

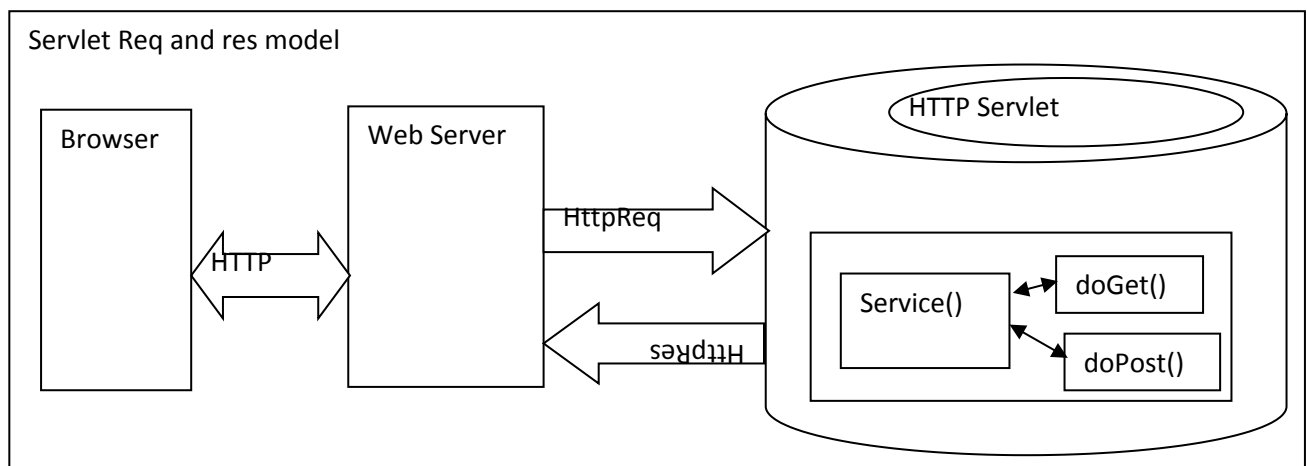> <HTML></HTML>
> <HEAD></HEAD>
> <TITLE></TITLE>
> <BODY></BODY>

Servlets

- ➤ What is Servlet
  - ○ What is servlet Container (Tomcat)

```
Servlet Req and res model

  ┌─────────┐      ┌────────────┐          ╭──────────────────────╮
  │ Browser │      │ Web Server │   req    │        ┌──────┐       │
  │         │◄HTTP►│            │ ════════►│   req  │servlet│       │
  │         │      │            │          │        └──────┘       │
  │         │      │            │◄════════ │   res                 │
  └─────────┘      └────────────┘   res    ╰──────────────────────╯
```

```
Build(.war) files are deployed

  ┌──────────┐        ┌──────────────┐
  │ webapps  │───────►│ First-servlet│
  └──────────┘        └──────────────┘
       │                    │                    │                    │
       ▼                    ▼                    ▼                    ▼
  ┌──────────────┐   ┌──────────┐      ┌──────────────┐      ┌──────────────┐
  │ Images/static│   │   src    │      │   WEB-INF    │      │   HTML/jsp   │
  └──────────────┘   └──────────┘      └──────────────┘      └──────────────┘
                                              │
                                              ▼
                                   ┌──────────────────────┐
                                   │Classes (contains .class)│
                                   └──────────────────────┘
```

- ➤ Why we need servlet
- ➤ Lifecycle of servlet
  - ○ Init (called first and only once)
  - ○ Service (multiple times as required)
  - ○ Destroy (called last and only once)
- ➤ Javax.servlet
  - ○ Servlet interface
  - ○ GenericServlet class
- ➤ Servlet mapping / URL re-writing

- o
- o
- ➢ Mapping between servlet and HTML
- ➢ RequestDispatcher
  - o Forward(req , res)
  - o Include(req,res)
- ➢ ServletConfig
  - o Used to pass initialization and context info to servlets
  - o Works only for servlet under which it has defined
    - ▪ getInitParameter("")
- ➢ ServletContext
  - o Accessible from all servlet
  - o Works for all servlet
 - o Used to define common param-value inside all servlet

HttpServlet

Servlet Req and res model

Browser — HTTP — Web Server — req → Servlet container — Service()
res

Servlet Req and res model

Browser — HTTP — Web Server — HttpReq → HTTP Servlet — Service() ↔ doGet() / doPost()
HttpRes
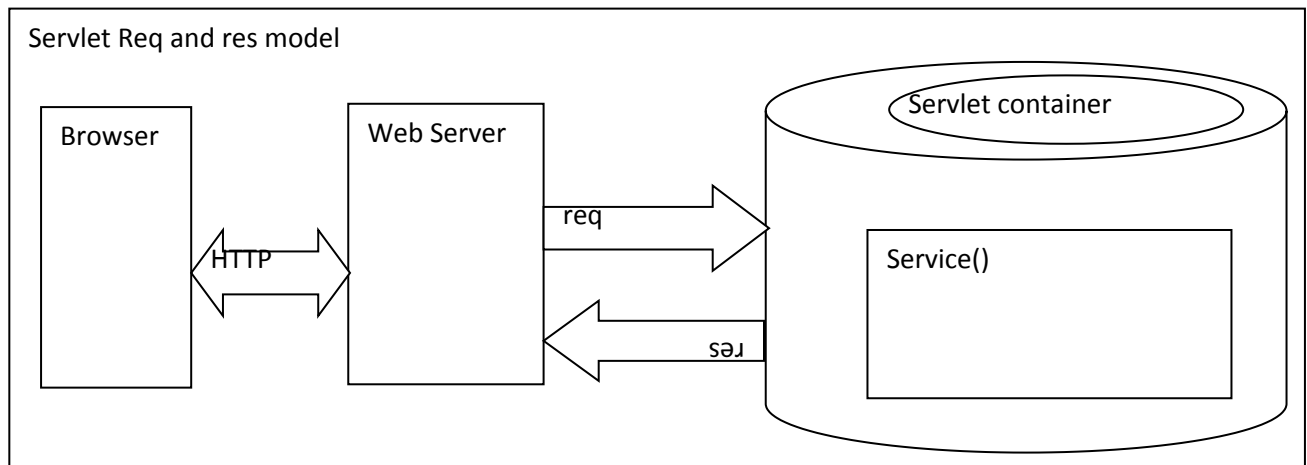
Difference between doGet & doPost

doGet	doPost
Data is part of URL. And is visible in URL as query string.	Data is not part of URL. And is not visible in URL as query string.
Data can be cached in browser	No caching in browser url history
By default method type is doGet	Only if you provide method="post"

Program
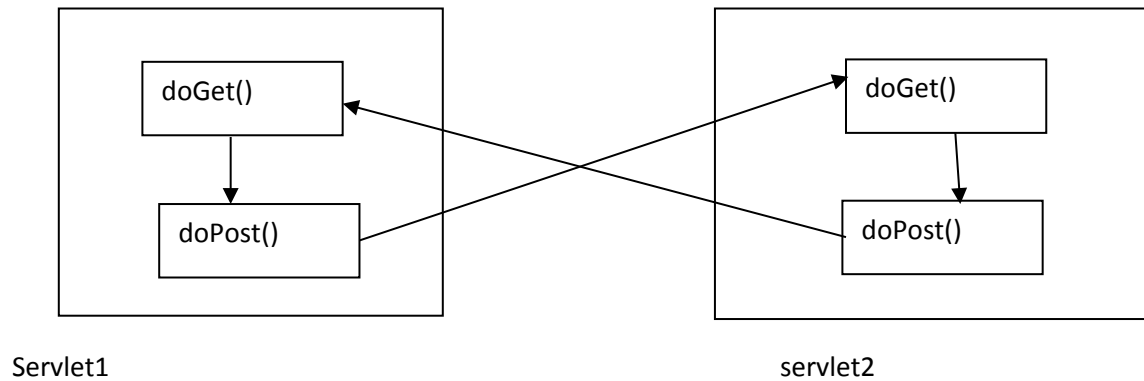
Servlet1   servlet2

Communication between two servlet.

- ➢ response.sendRedirect()
- ➢ RequestDispatcher interface