

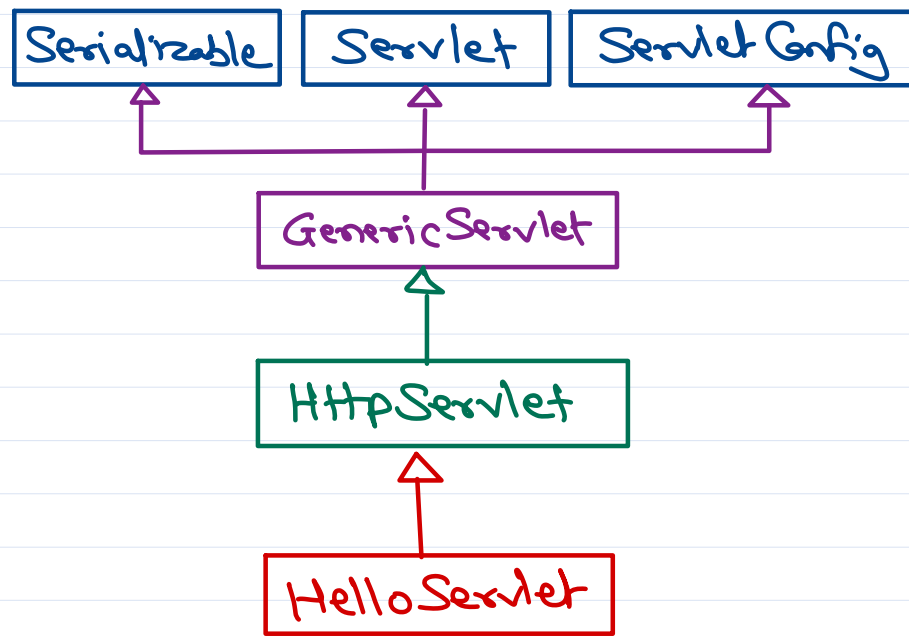


Advanced Java

Trainer: Nilesh Ghule



Servlet hierarchy



```
class HelloServlet extends HttpServlet {  
    public void init(cfg) {  
        // one time initialization  
    }  
    public void doGet(req, resp) {  
        // get req & produce response  
    }  
    public void destroy() {  
        // deinitialization  
    }  
}
```

Servlet interface:

- ① void init (Servlet Config cfg) throws ServletException;
- ② void service (ServletRequest req, ServletResponse resp) throws ServletException, IOException;
- ③ void destroy();

GenericServlet abstract class:

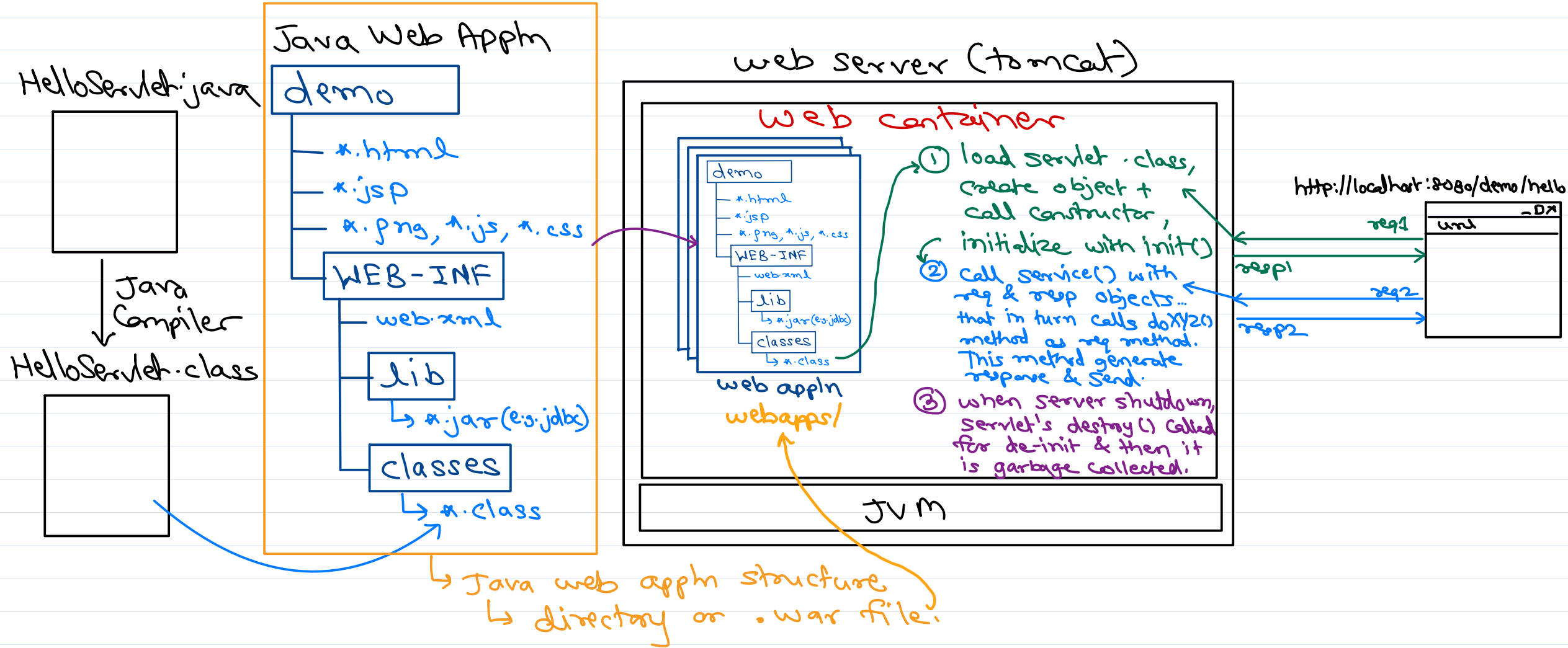
- ① void init (Servlet Config cfg) {...}
- ② void service (ServletRequest req, abstract ServletResponse resp);
- ③ void destroy() {...}

HttpServlet class:

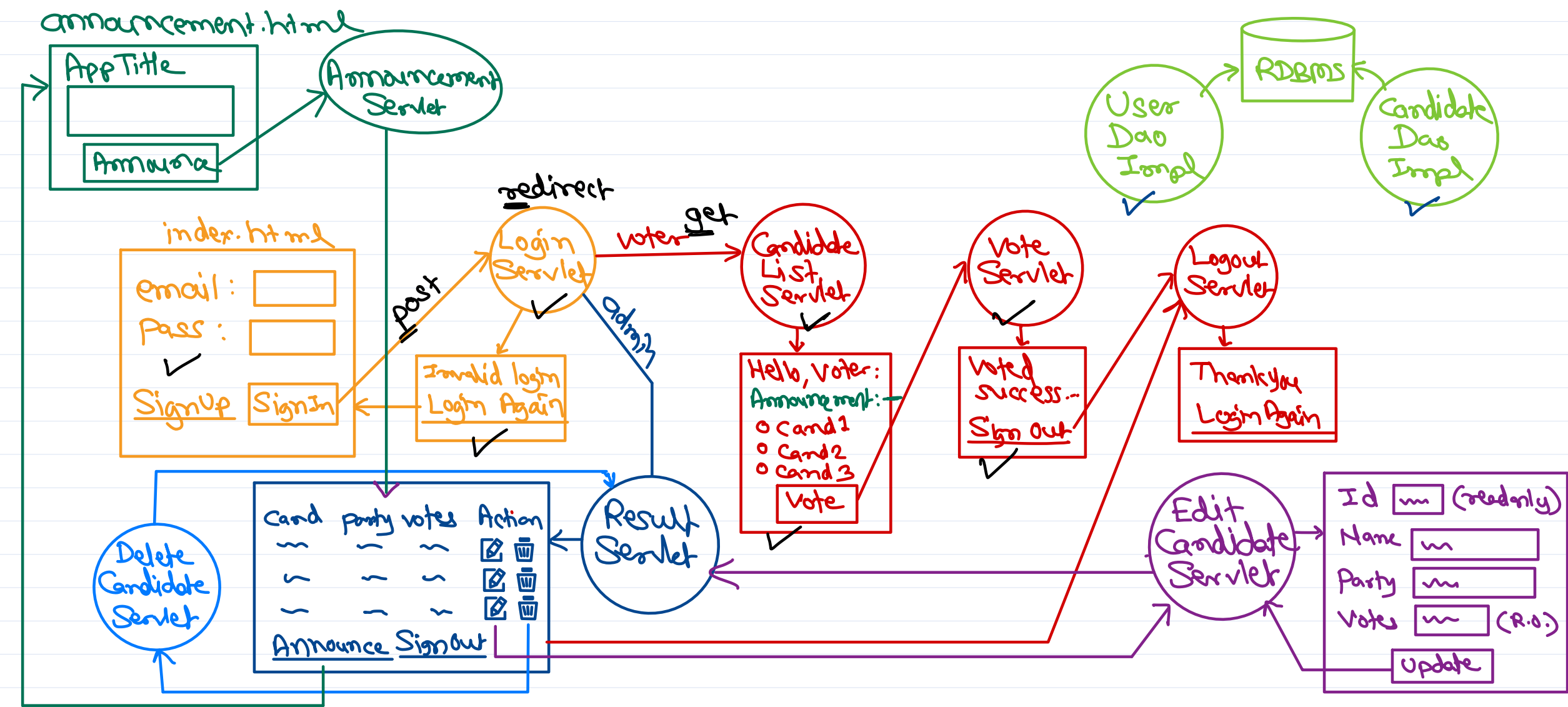
- ```
② void service (req, resp) {
 method = req.getMethod();
 if (method.equals("GET"))
 doGet(req, resp);
 if (method.equals("POST"))
 doPost(req, resp);
 ...
}
④ doGet() {...} ⑤ doPost() {...}
```



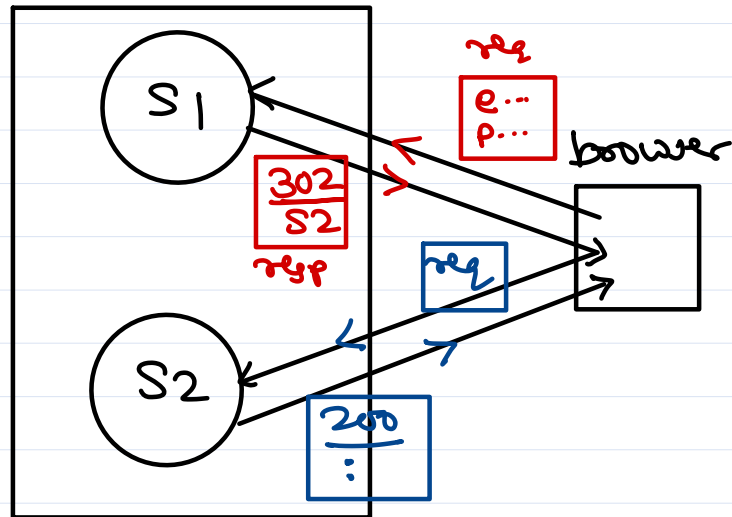
# HelloServlet execution



# Election Management

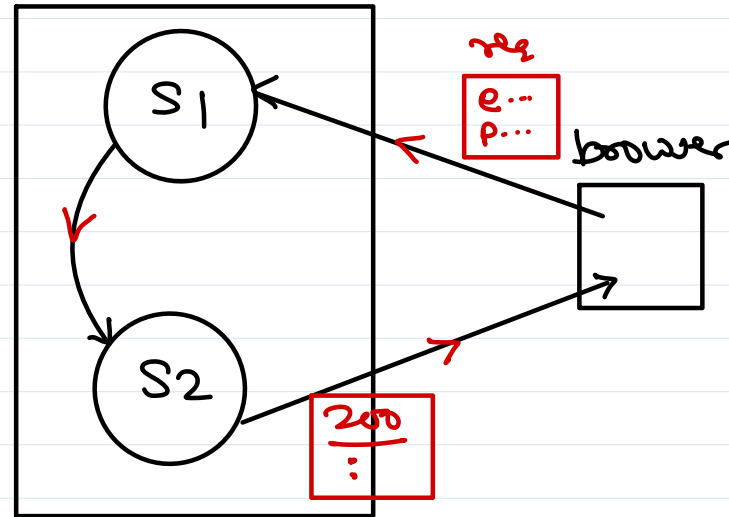


Server



`resp.sendRedirect("s2");`

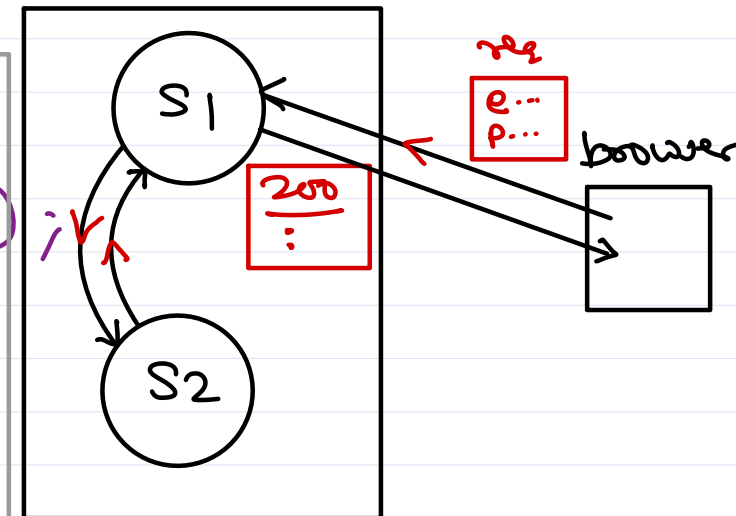
Server



RequestDispatcher rd;  
rd = req.getRequestDispatcher("s2");  
rd.forward(req, resp);

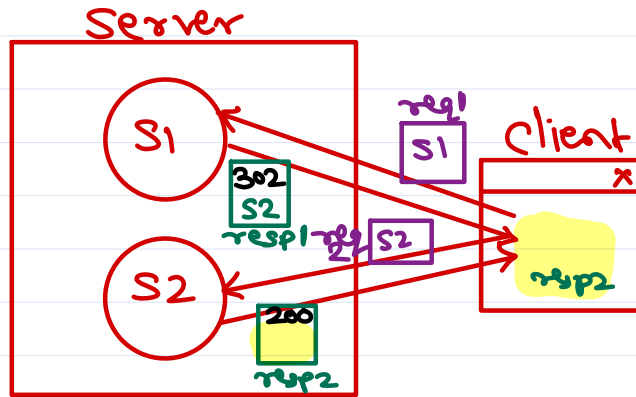
RequestDispatcher rd;  
rd = req.getRequestDispatcher("s2");  
rd.include(req, resp);

Server



# Inter-Servlet communication

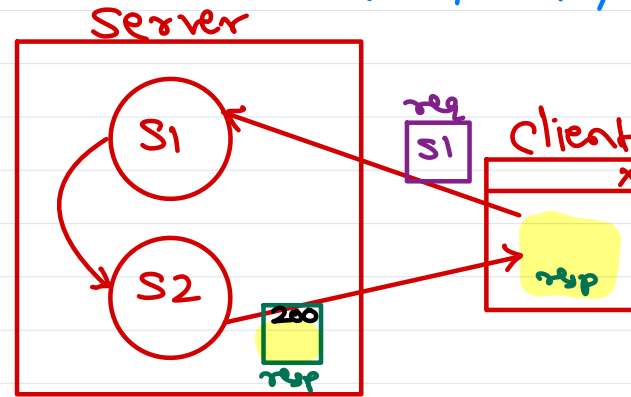
## HTTP redirection



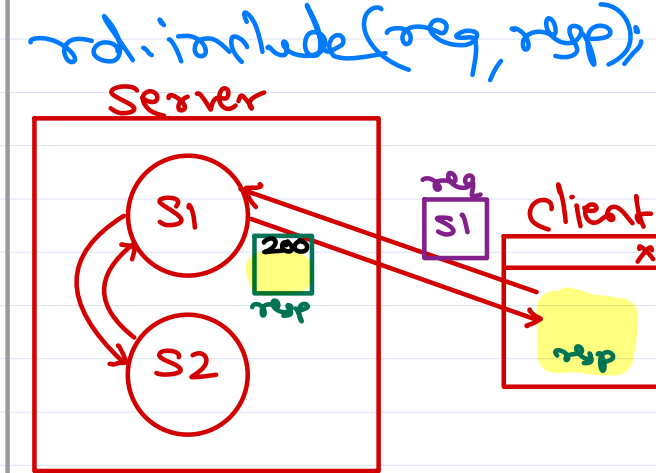
S1 : `resp.sendRedirect("s2-url");`

- ① First servlet sends a response (Status=302), due to which client makes a new request for next url.
- ② Can navigate to any web Component in the appn or outside the appn.
- ③ browser is aware of the navigation (check the url).
- ④ PRG pattern →
  - ① Post req to S1
  - ② 302 Resp (Redirect)
  - ③ Get req to S2.

RequestDispatcher  
`rd = req.getRequestDispatcher("s2-url");`  
`rd.forward(req, resp);`



- ① First servlet forward the request to the next web Component. Final resp generated by S2.
- ② Can navigate to any web Component within the appn.
- ③ client is not aware of the navigation (check the url).



- ① First servlet includes Partial resp generated by servlet 2. Final resp is generated by S1.
- ② Can navigate to any web Component within the appn.
- ③ client is not aware of the navigation (check the url).



*Thank you!*

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