



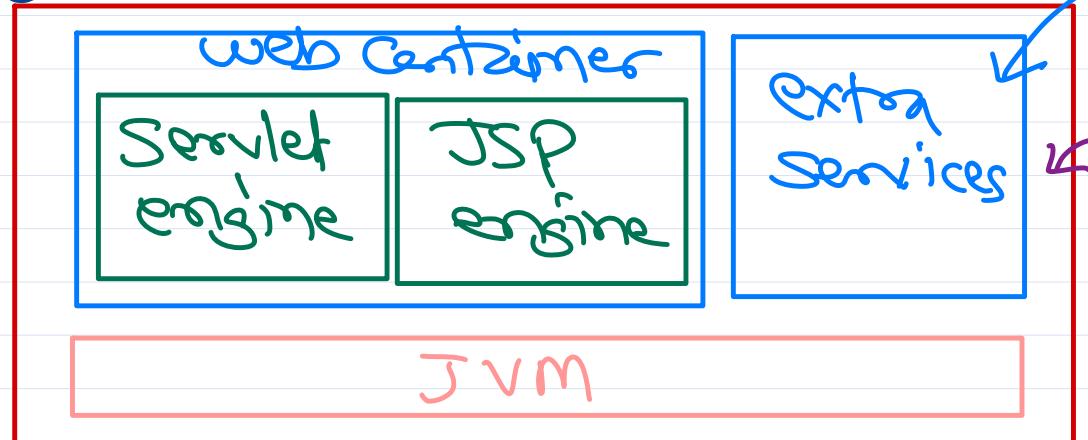
Advanced Java

Trainer: Nilesh Ghule



Java Web Servers

Java Web Server

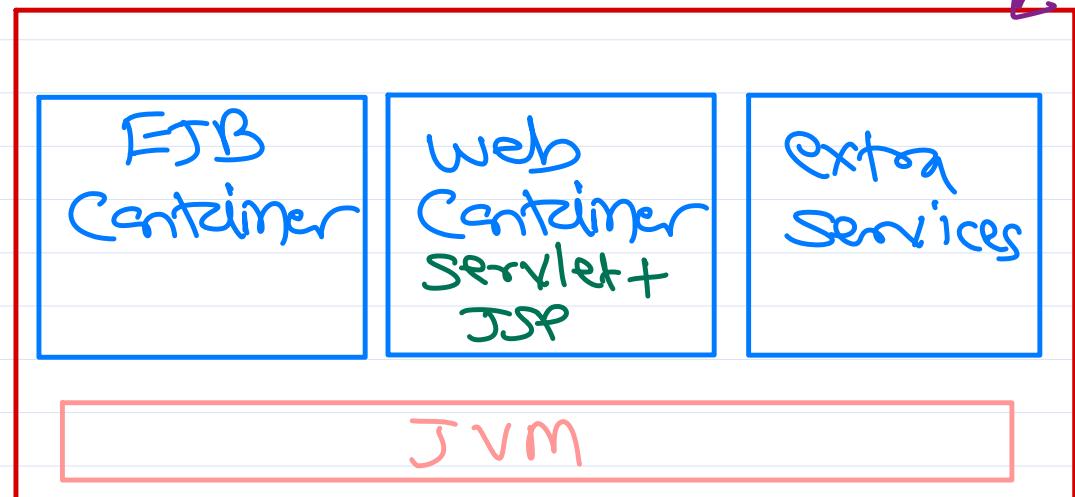


Security (SSL) + Connection pool +
JNDI + ...

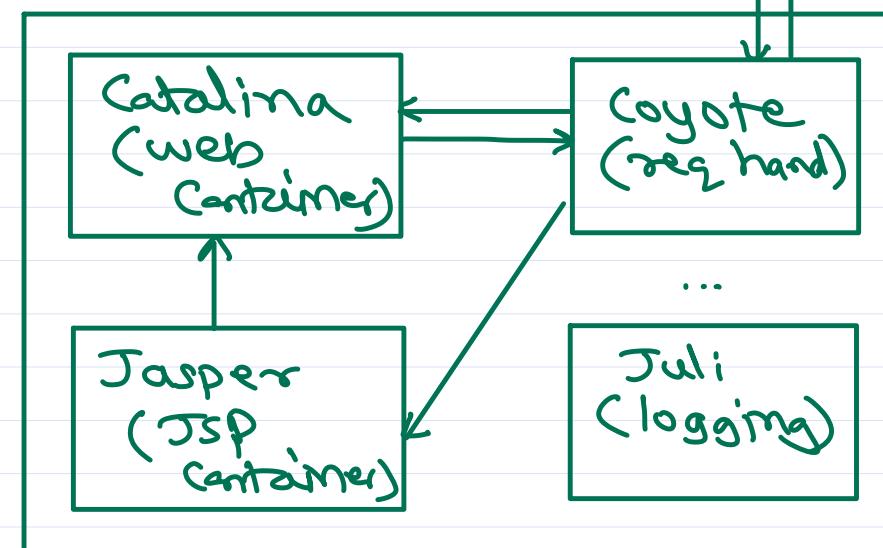
e.g. Tomcat, Jetty, Lotus, ...

e.g. JBoss, WebSphere, WebLogic, ...

Java applm Server



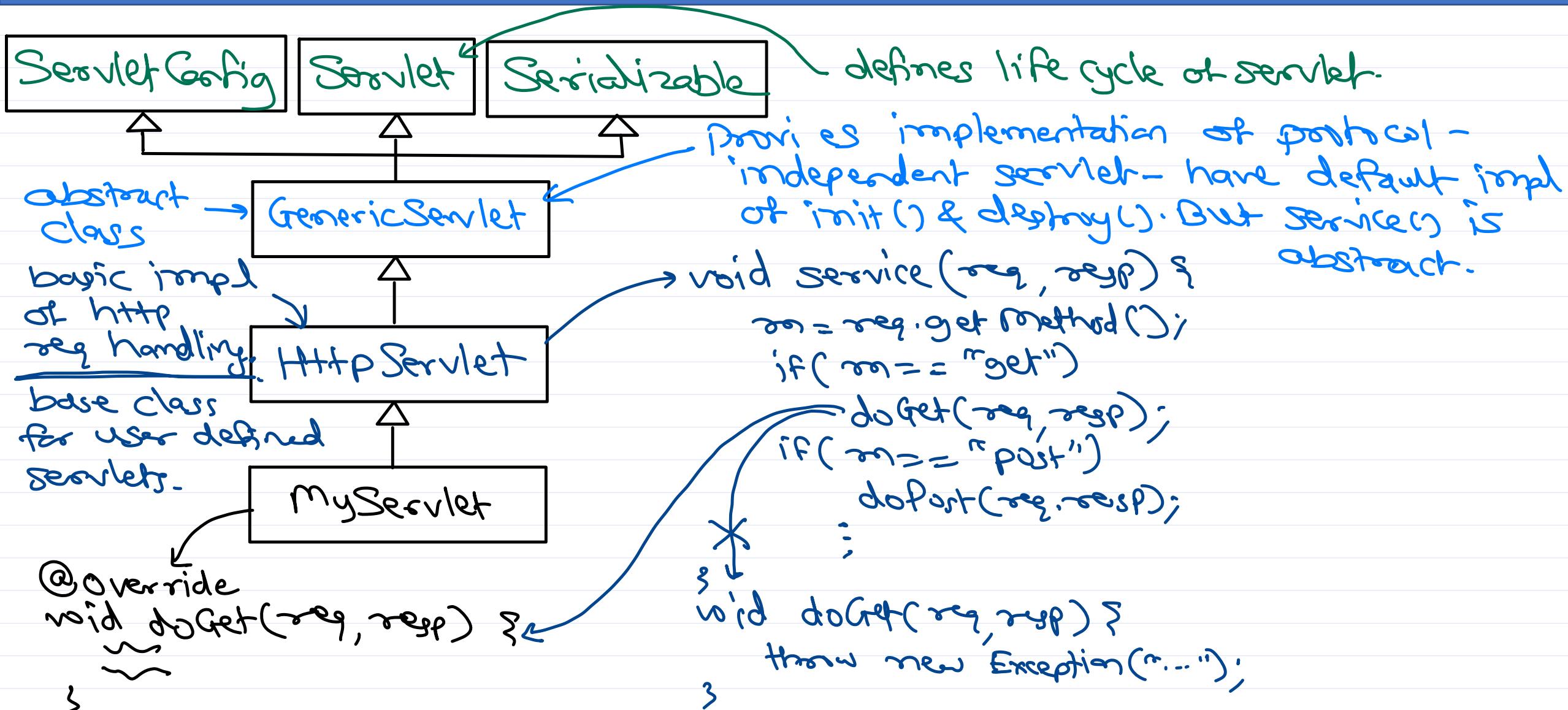
Apache Tomcat client



web servers
implements
Java EE
Specs.

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Servlet Hierarchy



Java Servlet Life Cycle → defined by Servlet interface.

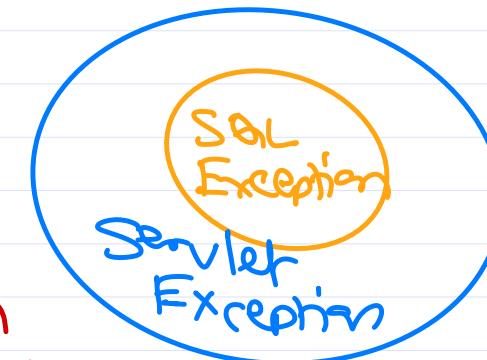
- ① **initialization** → when 1st req is made to servlet, the server class is loaded (in JVM), its object is created (with ctor called) & then container calls its 'init()' method.
void init(ServletConfig config) throws ServletException.
this method should be implemented in servlet class to perform one time initialization like read config, db conn, etc.
- ② **request handling** → for each req to servlet, the container calls request handling method i.e. service() method.
void service(ServletRequest rq, ServletResponse rp) throws ServletException
This method is implemented ServletException, IOException;
in HttpServlet class. Here it check req type & call appropriate doGet() or doPost() method → which is written in our servlet class.
- ③ **destruction** → when server is going to shutdown, it calls destroy() of all running servlets. void destroy();
this method should be implemented in servlet class for one time deinitialization e.g. close conn, ..



Error handling in Servlets

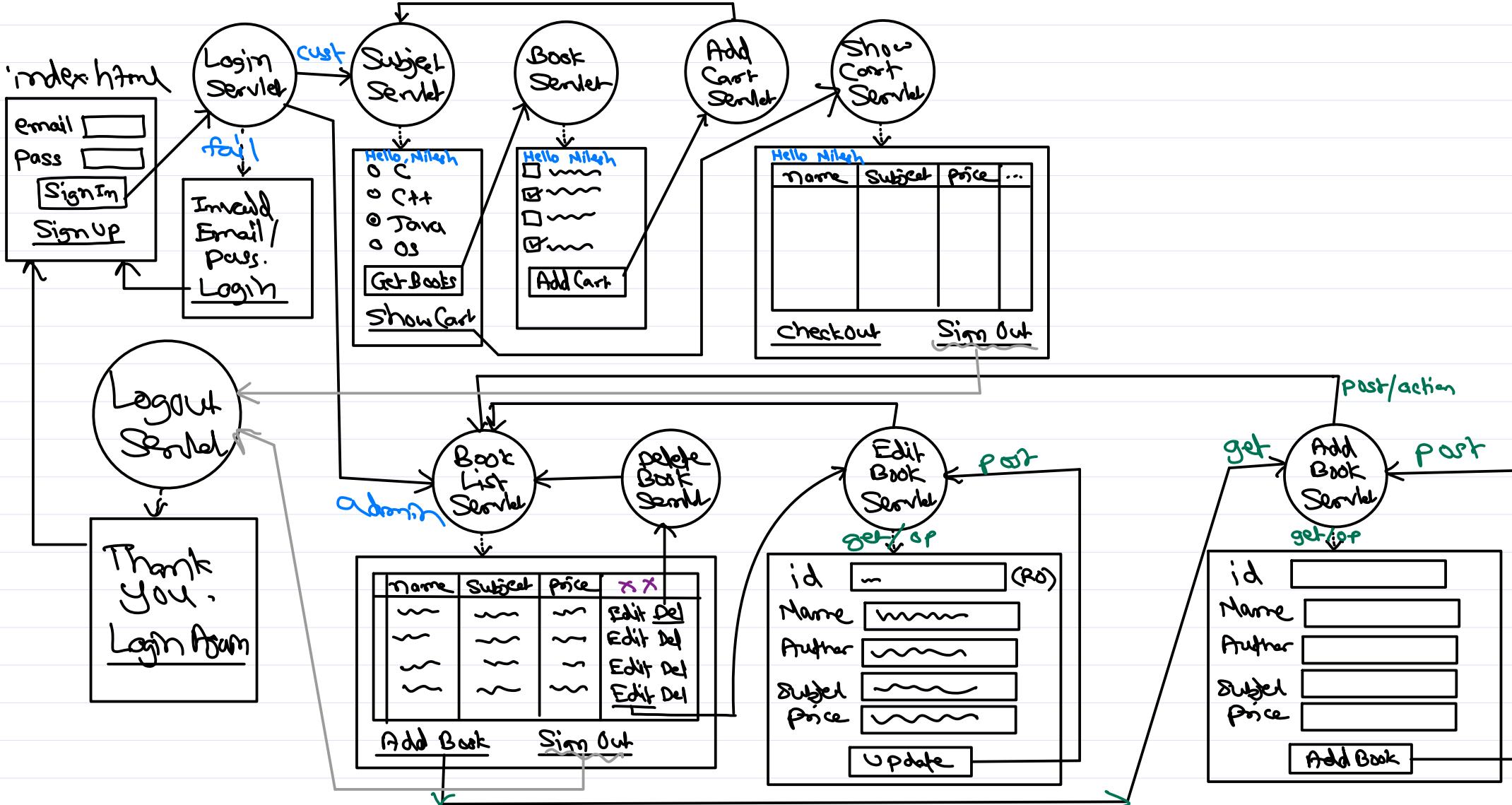
- * if `init()` fails, it should throw `ServletException`.
in this case, web container will not process
Servlet further i.e. its `service()` or `destroy()` will
not be called.

```
@Override  
public void init(ServletConfig cfg) throws ServletException {  
    super.init(cfg);  
    try {  
        // db conn code e.g. DinerManager.getConnnection(..)  
        } catch (SQLException ex) {  
            throw new ServletException(ex);  
        }  
}
```



- * Similarly, if any exception is raised in
req handling stage, it should be thrown by
wrapping it in `ServletException`.

Bookshop using Servlets





Thank you!

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