



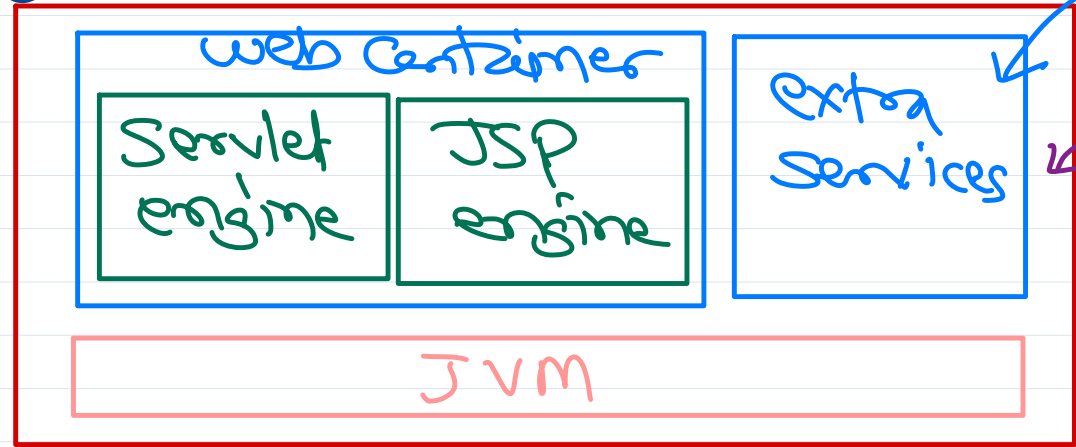
Advanced Java

Trainer: Nilesh Ghule



Java Web Servers

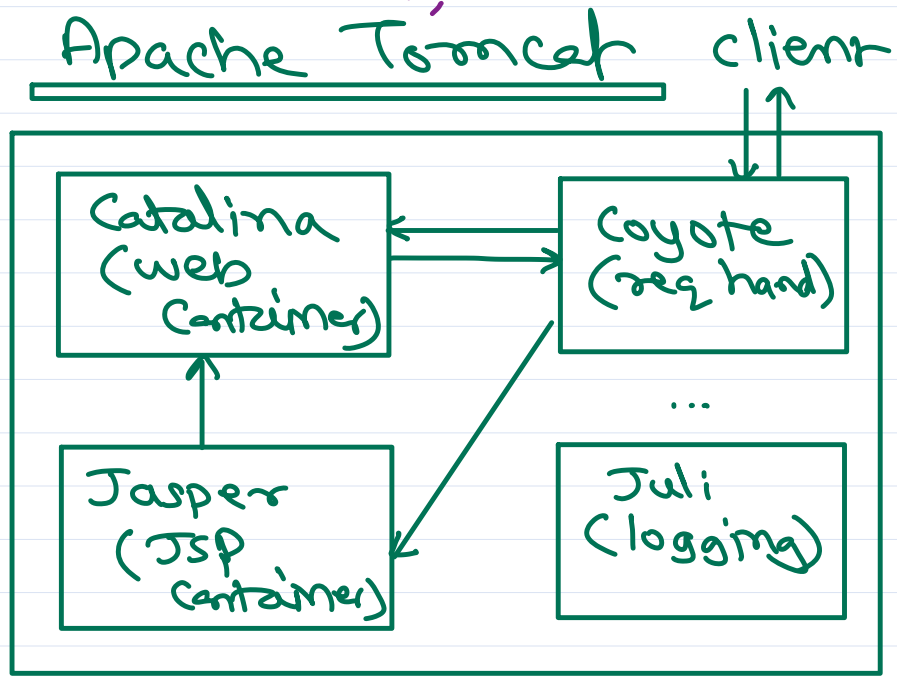
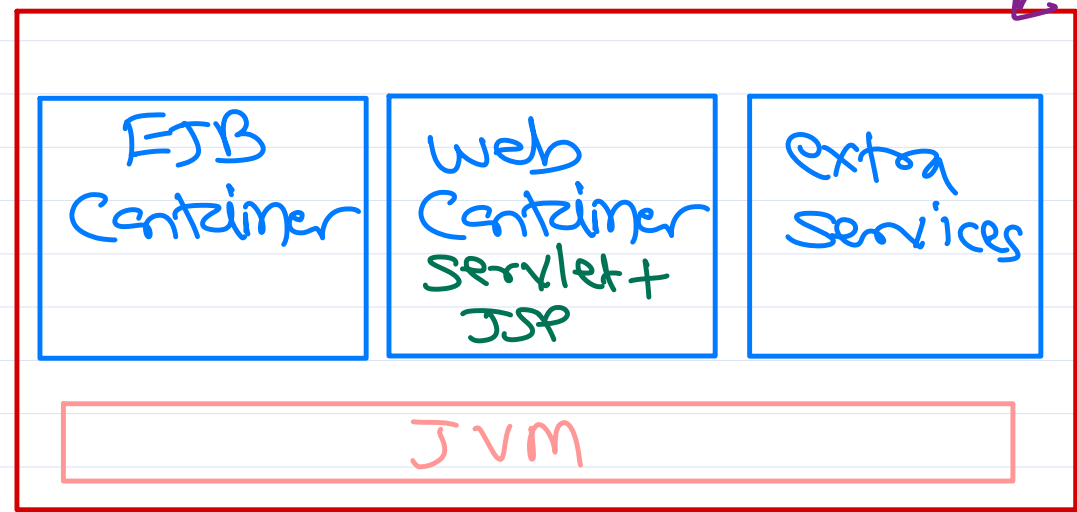
Java Web Server



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

e.g. Tomcat, Jetty, Lotus, ...
e.g. JBoss, WebSphere, WebLogic, ...
Glassfish, ...

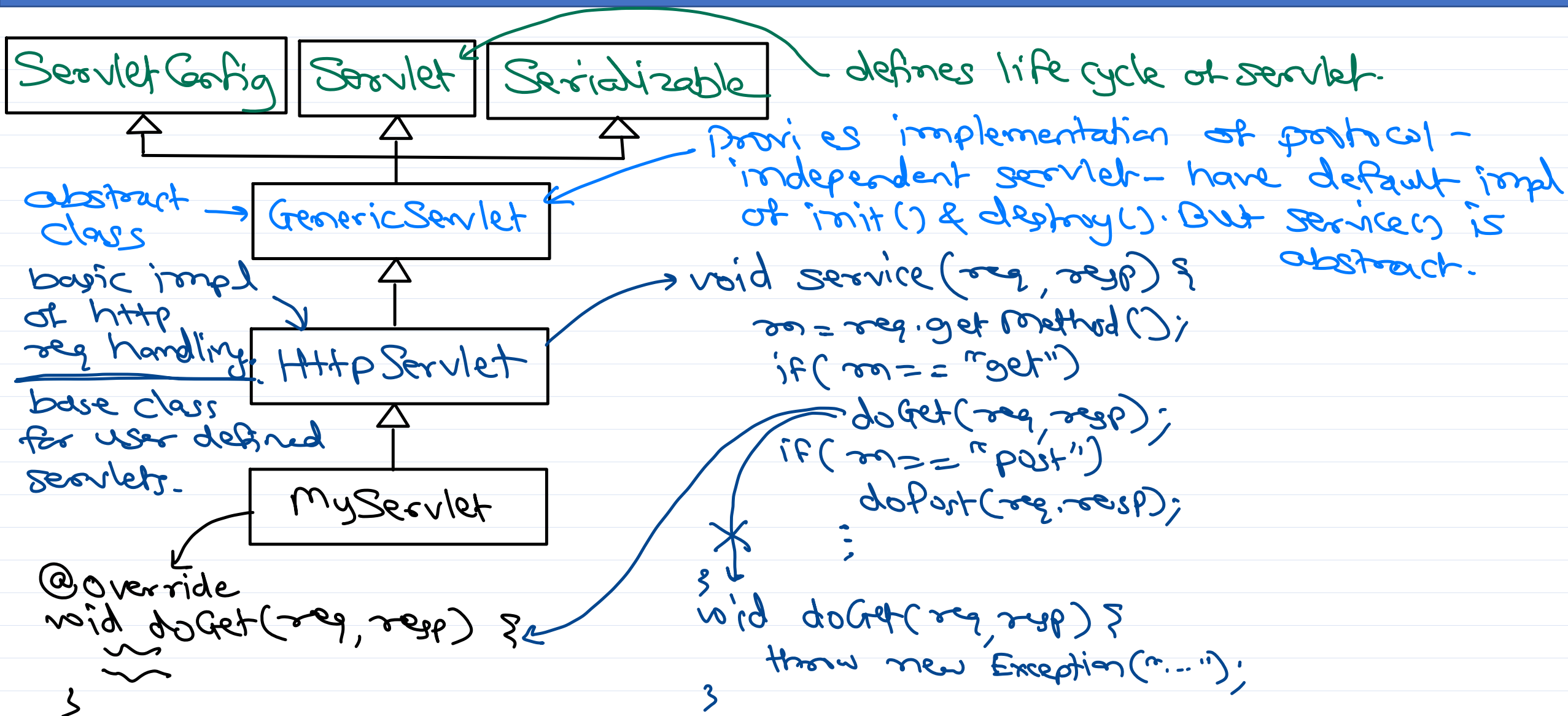
Java app'n Server



web servers implements Java EE Specs.



Servlet Hierarchy



Java Servlet Life Cycle → defined by Servlet interface.

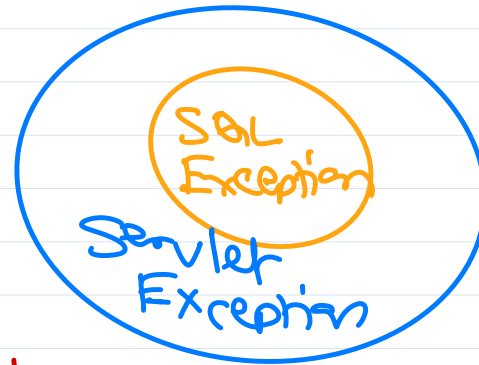
- ① initialization** → when 1st req is made to servlet, the servlet class is loaded (in JVM), its object is created (with ctor called) & then container calls its `init()` method.
`void init(ServletConfig config)` throws `ServletException`.
this method should be implemented in servlet class to perform 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`, `IOException`;
This method is implemented in `HttpServlet` class. There it checks req type & calls 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.

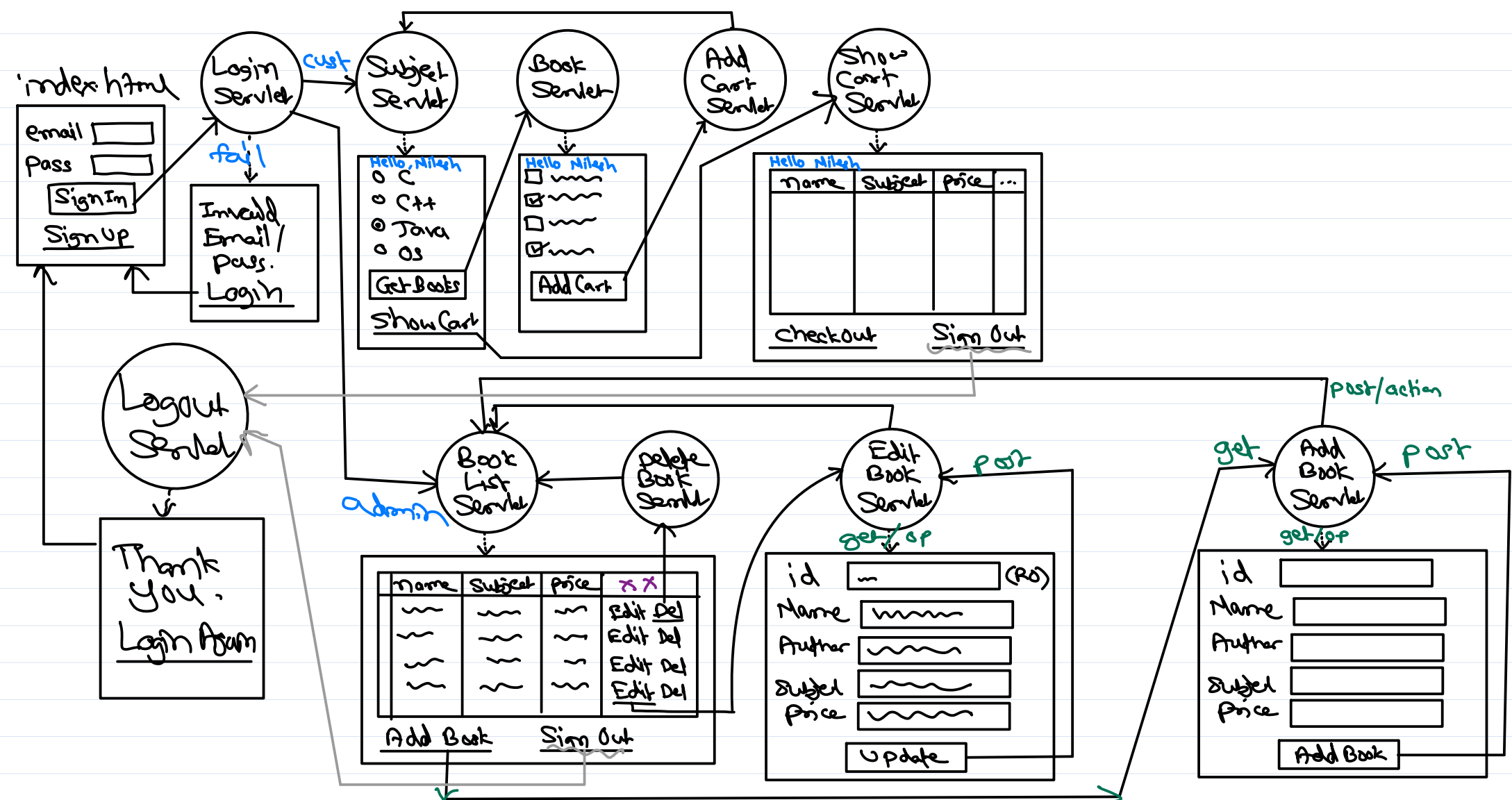
```
@Override  
public void init(ServletConfig cfg) throws ServletException {  
    super.init(cfg);  
    try {  
        // db conn code e.g. DriverManager.getConnection(...)  
    }  
    catch (SQLException ex) {  
        throw new ServletException(ex);  
    }  
}
```



- * 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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