Scopes in JSP

1. Request Scope
2. Session Scope } ← Servlet Scope
3. Application Scope
4. Page Scope

Request Scope

In Servlet this scope is maintained by ServletRequest Object,in jsp it is maintained by "request" implicit object.
The information stored in request scope is available for all components which are processing that request.
Request Scope => it will start at the time of request object creation.(before calling service())
it would end at the time of request object destruction(after completing service()).
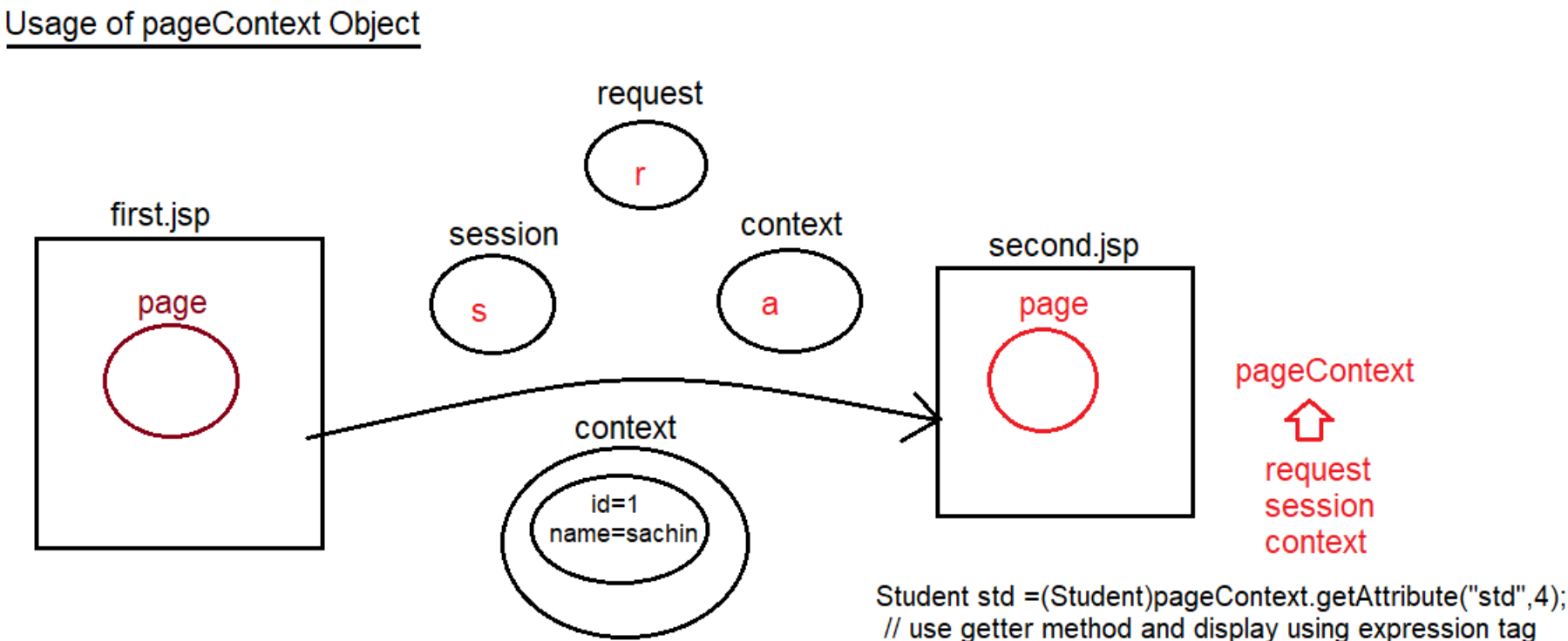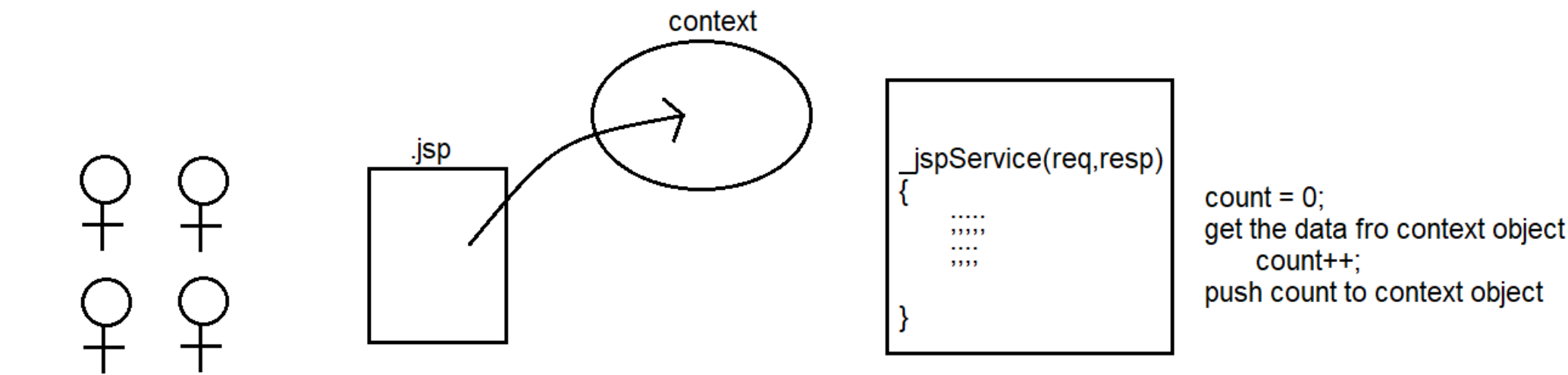
Session Scope

In Servlet this scope is maintianed by "HttpSession" object, in jsp it is maintained by "session" implicit object.
The information stored in session scope is available for all components which are participating in session.
Session Scope => It will start at the time of session object creation
It will end at the time of session expires(logout or invalidate()) or timeout mechanism.

Application Scope

In Servlet this scope is maintained by "ServletContext" object,but in jsp it is maintained by "application" implicit object.
The information stored in aplicaiton scope is available for all the components of the webapplication.
Application Scope = > it will start at the time of ServletContext Object(at the time of server startup) construction
it will end at the time of Servlet Context Object destruction(at the time of undeployment or server shutdown)

Page Scope

This scope is not applicable for Servlet, it is applicable only for JSP.
In JSP this scope is managed by "pageContext" implicit object
The information stored in pagescope is available only in the current jsp page, and not available for other jsp's.
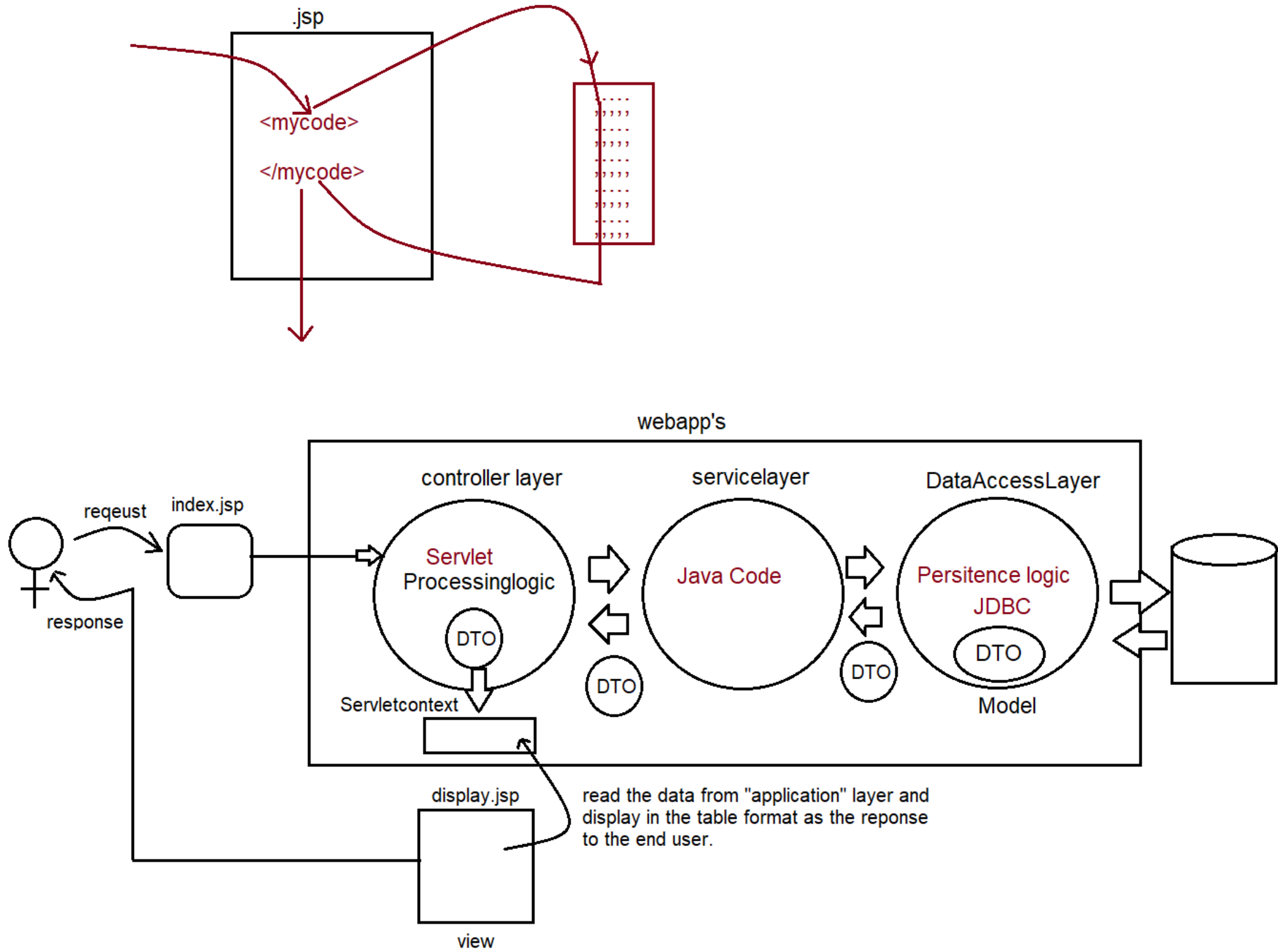

Usage of pageContext Object

Student std =(Student)pageContext.getAttribute("std",4);
// use getter method and display using expression tag

Difference b/w findAttribute(name) vs getAttribute(name)

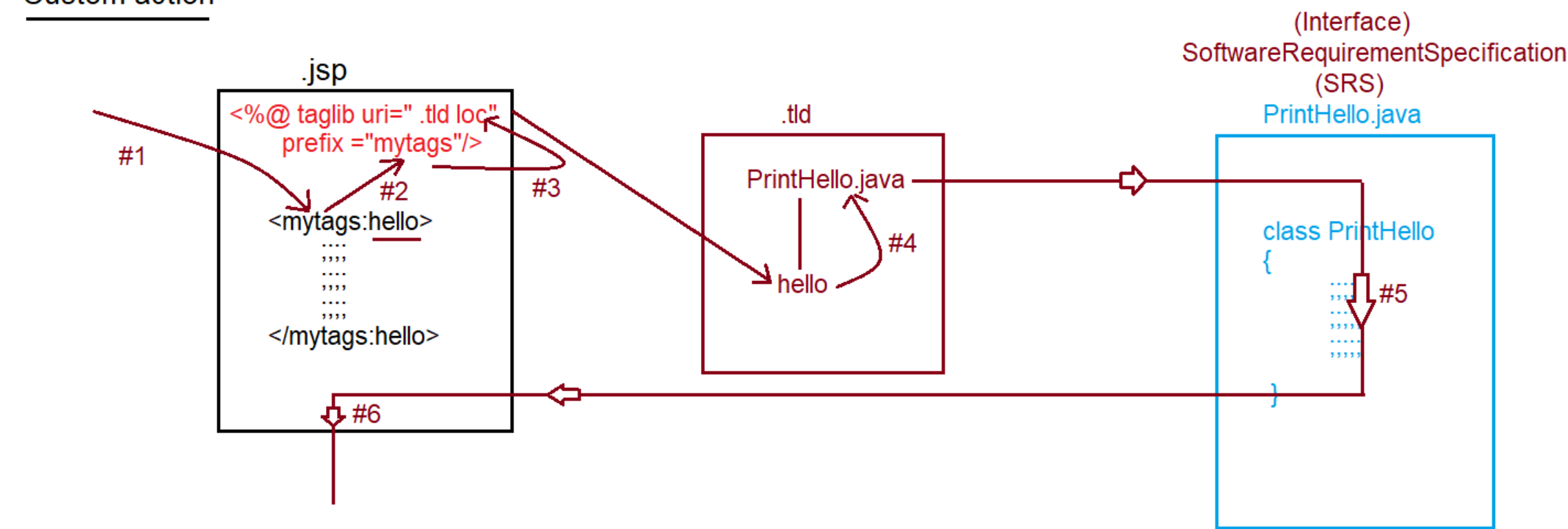getAttribute(name) => by default it will check in Page Scope, unitll explicitly we tell through SCOPE.

getAttribute(name,scope) =>it will check in the respective scope, and if it is availale it would return the value otherwise it would return null.

findAttribute(name) => first it will check in page scope, followed by request scope, sessionscope and application scope in any one of this scope
if the object is avaialbe it would return the value otherwise it would return null.

JSP Actions

read the data from "application" layer and
display in the table format as the reponse
to the end user.

Custom action

To implement simple if else, loop statements we have to provide lot of java code internally w.r.t interfaces supplied by
SUNMS for custom actions to take palce in jsp code.

To Overcome this JSP technology has provided a seperate tag library for simple java syntax implementation and frequently used operations.
JSTL is an abstraction given by SUNMS and its implementation is given by Server vendors.

tomcat implemented jars in the following location

C:\Tomcat 9.0\webapps\examples\WEB-INF\lib