There are two types of applications:

1. Jar – java-archive
2. War – web archive (used for creating web applications)

Servlet is a java class that takes a request as an input and gives a response as an output. Servlets are added in the web.xml file or Annotation @Controller is used.

@Controller is used to handle the request.

All request first goes to dispatcher Servlet.

For any request, we first map the URL with the dispatcher servlet(front controller) in the web.xml file, the servlet has it’s own configuration file ( i.e .xml file) , and in that file, it is mentioned which package to scan or look for the mapping URL with the method.

@RequestMapping maps the request with the URL to the method.

@ResponseBody is used when we return a value for a request.

Dispatcher Servlet - <https://www.geeksforgeeks.org/what-is-dispatcher-servlet-in-spring/>

If we don’t add @ResponseBody, then it gives error. If we want to return a view ,then we have to create a view resolver in the servlet configuration file and prefix and suffix and return the file name, using the configuration file prefix and suffix would be added.

## Spring MVC Request Flow

* DispatcherServlet receives HTTP Request.
* DispatcherServlet identifies the right Controller based on the URL.
* Controller executes Business Logic.
* Controller returns a) Model b) View Name Back to DispatcherServlet.
* DispatcherServlet identifies the correct view (ViewResolver).
* DispatcherServlet makes the model available to view and executes it.
* DispatcherServlet returns HTTP Response Back.
* Flow : <http://docs.spring.io/spring-framework/docs/2.0.8/reference/images/mvc.png>

There are levels of logging in log4j

1. TRACE
2. DEBUG
3. INFO
4. WARN
5. ERROR

If we mention TRACE in lo4j properties file then all types of loggers are printed, if we mention DEBUG then INFO, WARN, ERROR are printed. Loggers are printed level wise .

Component Scan is used to search for components i.e Controller, Service, Autowired, we just have to tell the component scan to scan classes of a particular package.

There are different modules in spring:

1.Core container – It takes care of dependency injection and it also takes care of the lifecycle of the bean.

2. Spring web – it contains classes/services related to web like servlet, websocket etc.

3. Data access and integration – It contains jdbc, orm, jms and transaction related details.

**Request vs Session**

Request is used when data has to be made available on a single page, data is fetched from @RequestParam and set into request object.

Session is used when data has to be made available on multiple pages and we don’t have to set it into session each time for each page. Once data is set into session, it is available until the session expires.

JSTL

It stands for jsp standard tag library.

**Spring Framework**