Category – Java Servlets

1. What is Servlet?
2. What are advantages of servlet ?

---persistent,scalable,can directly use JDBC,JNDI or any other Java SE API / Java EE API support.

1. Explain servlet life-cycle.
2. What makes servlet based web-application scalable?

Thrd based life cycle invocation

1. Explain exception handling in servlets.
2. What is the difference between web server & web container?
3. What are main services offered by web container

---manages life-cycles of web components, manages session tracking life-cycle,creates ServletRequest,ServletResp objects & passes it to Servlet/JSP(Primary services—security,JNDI & connection pooling)

1. How many servlet instances will be created for handling multiple requests from clients?

---if servlet class has not implemented SingleThreadModel i/f –only 1 single instance of servlet class will be created.

1. How many threads will be created for handling multiple concurrent requests from clients?

---no of thrds created = no of concurrent reqs.

1. Explain deployment steps of servlet.
2. Why do you need session tracking in any web application?
3. Can you generate binary content from a servlet? If yes how?

---Yes, using javax.servlet.ServletOutputStream class methods.

1. Explain HTTP Session life cycle.
2. What is the meaning of request|session|application scope? How do you set them in servlet?

---for application use javax.servlet.ServletContext

1. How do you specify initialization parameters to a servlet? What is their scope?

Initialization params of the servlet are added in web.xml(deployment descriptor of web-appln) , within servlet tag.

Scope=current servlet only(param name & value ---string)

1. How do you specify context parameters? What is their scope.How do u access context params?

---Context params represents params (string name , string value) shared across entire web-appln.

Scope=current web appln

How to access--- using API of ServletContext

1. Explain difference between ServletConfig and ServletContext

--ServletConfig represents the i/f of servlet to Web container – for accessing servlet’s init params.

--ServletContext --- i/f which represents current web –appln. Has API for ---logging,RequestDispatcher.

1. Explain difference between request dispatcher and sendRedirect

---Request dispatcher(servlet chaining) is stretching the current request sent from user(clnt browser) to visit multiple web resources. --- request scope.

---Redirect ---- web container will send a redirect response hdr & clnt will be redirected to the new page---in the next request. ---session scope

1. Explain difference between request dispatcher’s forward & include scenario.

---- In forward scenario—the last resource in RD’s chain can generate dynamic contents & commit the resp. If intermediate pages generate response, its ignored or u might get IllegalStateExc.

---In Include scenario--- any page (main & included) can generate dynamic contents & add the same to response.(server side include)

1. What is the difference between parameter and attribute.

--- param --- String name & value(eg---req. param,init-param,context-param)

--attribute—server side objects –associated with one of the scopes. String name & java.lang.Object—value.

1. What is servlet chaining?

Request Dispatcher

1. Explain any scenario where you will use Context|Session listener. How?

---Context Listener --- Used to specify any code ---which has to be executed only once per web appln (Context) start-up. Eg --- In Hibernate based Persistence---u need only 1 instance of SessionFactory, so this can be done easily using ContextListener’s contextInitialized() & SF can be closed in contextDestroyed().

---SessionListener--- Used to specify any code ---which has to be executed only once per session (User’s login)

Eg --- When user doesn’t logout explicitely, u can invalidate session, or close DB connection or save user state in DB ---by adding HttpSession Listener(API –imple. HttpSessionListener, & override sessionDestroyed())

What is usage of servlet filters?

----Web component from Servlet architecture---to intercept request & response.

Usage ---Any common task(cross-cutting concerns) can be implemented using servlet filter.

Eg---logging,monitoring,security,session-checks,compressing

1. Explain filter life-cycle.

---as per javax.servlet.Filter i/f specification

--init,doFilter,destroy

1. Comment on thread safety of – local variables of doGet()/doPost()---thrd safe, instance variables of servlet---thrd unsafe, session scoped attributes---typically thrd safe(unless 1 clnt is concurrently sending multiple rqs) and application scoped attributes---highly thrd unsafe---recommended to access from within synch block

---u should never synchronize doGet/doPost---since it will make ur web-appln sluggish. Concurrent handling of the clnts will be affected.—better soln is identify critical code & wrap it in sych block.

Category – JSP

1. What are the advantages of JSP over servlet?

---separation of concerns(ie. Business logic can be separated in JavaBean or cust tag, JSP can supply rq. Processing + resp generation logic),easier development,can separate project members as web-designers & Java dev.

1. Explain JSP life cycle.

---translation,compilation,run-time(rq. Processing)

jspInit,\_jspService,jspDestroy

1. Why should you avoid writing scriptlets in JSP?

----defeating the purpose of JSP---ie. Again mixing B.L , view generation logic in single JSP page. Also its extremely difficuly to manage scriptlet based code.

1. What are JSP’s implicit objects?

----pageContext,page,request,response,out,config,exception(only for exception handler pages),application,sesion

1. If you write code in JSP scriptlet|Expression or EL syntax |declaration , where does it appear in translated servlet?

----\_jspService(invoked per request), \_jspService(invoked per request),outside \_jspService---treated as private scoped member(only visible to current page)

1. How do you enable session tracking in JSP?

----every JSP page by default participates in session tracking. To disable session tracking ---specify session=false – as page directive attribute.

1. Explain error handling in JSP.

----errorPage & isErrorPage—page directive attributes

Alternative –global way—declare exception config in web.xml

1. What is the difference between include directive and include action.

----In include directive ---the contents are included at translation phase(represents ---page scope) & in include action---contents are included @ run –time phase(=R.D ‘s include scenario—req. scope)

1. How do you pass initialization parameters to JSP and how do you access them?

---By declaring/registering JSP in web.xml –using servlet & servlet-mapping tag. In servlet tag , simply replace servlet-class by jsp-file & specify JSP file name & then u can pass init –params to JSP.

Accessing --- via config.getInitParameter(pName)

1. Can you access implicit objects of JSP from jspInit or jspDestroy?

---no, can be accessed only from scriptlets/expressions.

1. Explain page directive attribute isThreadSafe

----def value=true=>Prog has written thrd safe code.

isThreadSafe=false=> Prog has not written thrd safe code, so requesting WC to provide thrd safety.

Recommended--- true.

12 How do you embed applet in JSP?

---either by <applet> or <jsp:plugin>

13. What is the need of Custom Tags?

--when std. JSP tag library or JSTL actions are insufficient to solve business requirements, extend tag library by adding ur own custom tags/actions.

14. How do you develop & use custom tags?

---create tag handler class to contain tag exc logic,describe tag details to WC using TLD, import TLD using taglib directive & invoke tag.

15 How will you compare custom tags & Java Beans

---Java Beans ---not tied to any JSP API –so independent of WC. Cant access easily JSP environment.

--Cust Tags---tied to JSP Tags API—can’t exist outside WC, can easily access all details from JSP env(via PageContext)

16. Explain difference between Model I & Model II (MVC) architecture.

17 What are advantages of MVC?

Category Struts 2

1. Differentiate between Struts 1 & Sturts 2

Hint --- refer to comparing-sturts1-and-2

2. What are Pull-MVC and push-MVC based architecture ? Which architecture does Struts2 follow ?

In case of Push-MVC the data( Model) is constructed and given to the view layer by the Controllers by putting it in the scoped variables(attributes) like request or session. Typical example is Spring MVC and Struts1. Pull-MVC puts the model data in a common place , and view layer pulls it from the common place & then gets rendered. Struts2 is a Pull-MVC based architecture, in which all data is stored in Value Stack and retrieved by view layer for rendering.(eg - s:property)

4. Are Interceptors in Struts2 thread safe ?

No,Unlike Struts2 action, Interceptors are shared between requests, so thread issues will have to be handled.

5. Are Interceptors and Filters different ? , If yes then how ?

Both Interceptors and filters are meant for intercepting request/Business action

Differences –

Filters: (1)Based on Servlet Specification (2)Executes on the pattern matches on the request.

Interceptors: (1)Based on Struts2. (2)Executes for all the request coming for a front controller.And can be configured to execute additional interceptor for a particular action execution.

6. Which class is the front-controller in Struts2 ?

The class "org.apache.struts2.dispatcher.FilterDispatcher " is the front controller(servlet filter) in Struts2. --- true for struts 2.0.x

7. What is interceptor & its role?

Interceptors - specify the request-processing life cycle for an action. Interceptors specify the sequence of actions that happen before and after the Action class is executed.

Role -Used to apply common functionality to a request. They allow common, cross cutting tasks to be

defined in clean, re-usable components that you can keep separate from your action code.

eg : logging,params,validations,file-upload,workflow,exception

8. What are main additions in Struts 2 ?

Interceptors,value stack,OGNL

9. What is value stack?

Struts 2 uses the ValueStack as a storage area for all application domain data that will be needed during the processing of a request.

10 What is OGNL

Object Graph Navigation Language---

powerful expression language.

Used to read & update properties on the ValueStack.

11. What is the relation between ValueStack and OGNL ?

A ValueStack is a place where all the data related to action and the action itself is stored. OGNL is an EL through which the data in the ValueStack is manipulated.

explain states of hibernate?

write query for of join in hibernate?

what is d diff between ejb and web services

what is web service?

how u can use session in web services?

what is servlet?

explain servlet life cycle?

Explain the WebSerivces in dot net and Java?

Why you had used Struts and Hibernate in the project?explain?

Difference between hibernate and EJB?

Steps for EJB?

how you implement database connection in your project(i used struts-hibernate combination in project with reverse engineering).

What is Struts ,Hybernate,MVC pattern,servlets,n to explain some of coding of proj.

Difference between hibernate and EJB?

Steps for EJB?