

Interview preparation guideline

Java Programming:

- Java OOPS
 - Abstraction
 - Encapsulation
 - Inheritance
 - Polymorphism
- Java Serialization
 - Custom serialization
 - Serialization in inheritance
 - Externalization
- Java Cloning
 - Shallow clone
 - Deep clone
- Java Design Pattern
 - Creational
 - Singleton
 - Factory
 - Abstract Factory
 - Structural
 - Proxy
- Java Design Principle
- Java Exception
 - custom exception
 - try catch finally
 - throw and throws
 - throw-able
 - exit/addshutdownhook
- Java Generic
 - Bounded generic
 - Upper and Lower bound
 - Type erasure
 - limitation of generic
- Java Collections
 - ArrayList and LinkedList
 - HashMap
 - HashSet
 - ConcurrentHashMap

- ConcurrentModification
- Fail Safe/Fail fast
- Unmodifiable list/ immutable list
- Comparator and Comparable
- equals and hashCode method
- Java Concurrency
 - Synchronization block/method
 - ThreadLocal
 - Executor/ExecutorService
 - Callable/Runnable
 - Future/FutureTask
 - shutdown()/shutdownNow
 - CyclicBarrier/CountDownLatch
 - Semaphore
 - wait/notify/yield
 - Re-entrant Locking
 - Atomicity/volatile
- Java String Operation
 - String pool
 - String Immutability
 - String Intern
- Java Reflexation
- Java Annotation
- Java Programs:
 - String reverse/retain white space position
 - String Anagram
 - String permutation
 - Solve Infix expression
 - Print Even Odd Number in sequence
 - Find or Print Primary number from 1 to 100.
 - Find middle element from linked list in one loop
 - Find second highest number from unsorted array.
 - Design LRU Implementation in Java
 - Design Snake Ladder Program in Java
 - Print A B C Alphabet in sequence
 - Binary Search algorithm
 - Implement Stack/Queue using LinkedList.
 - Design Traffic System with crossing road -|-

Spring Framework

- Spring Core
- Spring bean life-cycle
- Spring bean scope
- Spring MVC
- Spring Exception
- Spring Internationalization
- Spring JDBC
- Spring Validation
- Spring Interceptor
- Spring AOP
- Spring Transaction
- Spring ResponseBody/RequestBody
- Spring integration with Hibernate
- Spring @Component,@Repository,@Service,@Controller

Hibernate Framework

- Hibernate Configure file
- Hibernate get and load method
- Hibernate Association {one-to-one, one-to-many, many-to-many} with annotation only
- Hibernate Composite key
- Hibernate Fetching strategy
- Hibernate Inheritance
- Hibernate Caching First and Second Level
- Hibernate Query Cache
- Hibernate Locking
- Hibernate Version and timestamp
- Hibernate Inverse
- Hibernate Criteria
- Hibernate openSession and getCurrentSession
- Hibernate Dirty checking
- Hibernate Paging

Rest Web service

- Rest Parameters
- Rest Content type
- Rest Content-negotiation
- Rest HATEOAS
- Rest Security
- Rest MessageBodyReader/Writer-> Provider
- Rest Response code:
 - The 3xx denotes a redirection.
 - The real-time errors are 4xx (client error)
 - And 5xx (server error e.g. Exception).

Servlet

- Servlet Life-cycle
- Diff b/w Webserver and Application Server
- Tree Structure of WAR
- GET/POST
- Idempotent
- ServletConfig/ServletContext
- RequestDispatcher
- forward/sendRedirect
- Do we need to override service () method?
- What is the inter-servlet communication?
- What are different methods of session management in servlets?
- Why do we have servlet filters?
- How to handle exceptions thrown by application with another servlet?
- What is a deployment descriptor?
- How to make sure a servlet is loaded at the application startup?
- How to get the actual path of servlet in server?
`{getServletContext().getRealPath(request.getServletPath())}`
- How to get the server information in a servlet?
`{getServletContext().getServerInfo()}`
- How to get the IP address of client in servlet? `{request.getRemoteAddr()}`

JSP

- JSP Life-cycle
- JSP Life-Cycle methods
- Which JSP lifecycle methods can be overridden?
- What are different types of comments in JSP?
- What is Scriptlet, Expression and Declaration in JSP?
- What are JSP implicit objects?
- Which implicit object is not available in normal JSP pages?
- Explain JSP Action Elements or Action Tags?
- What is difference between include directive and jsp: include action?
- What is JSP Expression Language and what are its benefits?
- What is JSP Standard Tag Library, provide some example usage?
- What are the types of JSTL tags?
- What is JSP Custom Tag and what are its components?

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We can create JSP Custom Tags with following components:

1. JSP Custom Tag Handler Class
2. Creating Tag Library Descriptor (TLD) File
3. Deployment Descriptor Configuration for TLD

e.g. `<mytags: formatNumber number="123456.789" format="#.###.00"/>`
}

- How can we handle exceptions thrown by JSP service method?
- How can we prevent implicit session creation in JSP? `{<%@ page session="false" %>}`

JQuery

SQL Query
