**[MODULE-1] Audit Module 2 - Javaweb**

##Nội dung câu hỏi và phần trả lời

**[ Câu hỏi ] 1. What is Webservice?**

- method of communication between two electronic devices over the World Wide Web

**[ Câu hỏi ] 2. What project did you use Webservice for?**

**[ Câu hỏi ] 3. What function did you Webservice provide?**

**[ Câu hỏi ] 4. What server did you use to run?**

**[ Câu hỏi ] 5. How did you test your Webservice?**

- RESTful client (add-on of Firefox)

- SOAP UI

**[ Câu hỏi ] 6. What do you use to parse JSON data?**

- Use Json or Jackson libraries

- Create JSONObject (Please check sample code to see the details)

**[ Câu hỏi ] 7. How do you read XML file using JAXB?**

a. Create POJO with annotations

b. Create JAXBContext

c. Create a marshaller or an unmarshaller to convert

d. Please check sample code to see the details

**[ Câu hỏi ] 8. How would you write a simple REST client?**

- Using Jersey:

o Create client config

o Create client

o Get resource for client from URI

o Getting data by path and media type/ posting data

**[ Câu hỏi ] 9. How do you get the parameter in Restful?**

- Jersey: pathParam, QueryString

- Spring MVC: @PathVariable

**[ Câu hỏi ] 10. What XML Binding tool do you use?**

- JAXB

**[ Câu hỏi ] 11. What are the differences between SOAP and REST?**

- Architecture:

o SOAP: XML-based message protocol

o REST: architectural style

- Communication:

o SOAP: WSDL

o REST: XML + JSON (WADL)

- Invocation:

o SOAP: RPC method

o REST: URL path

- Returned result:

o SOAP: doesn’t return human readable

o REST: return human readable (XML + JSON)

- Protocol:

o SOAP: HTTP, SMTP, FTP…

o REST: HTTP

**[ Câu hỏi ] 12. What is JAX-RS, and why did you use it ?**

- Java API for RESTful webservice

- Support to create RESTful webservice

**[ Câu hỏi ] 13. What JAX-RS implementation did you use ?**

- Jersey

- Spring MVC

**[ Câu hỏi ] 14. Could you explain about WADL?**

- Web Application Description Language

- Machine-readable XML of HTTP-based web application

- Models resources, relationship, methods applied, representation format

**[ Câu hỏi ] 15. Have you worked with consuming or producing Web Service?**

- Both

- Jersey Client + Jersey

**[ Câu hỏi ] 16. Can you explain about WSDL?**

- Webservice Description Language

- XML-based interface for describing function

**[ Câu hỏi ] 17. What are different states of object in Hibernate?**

- Transient: not associated with persistence context

- Persistence: associated with persistence context

- Detached: not associated with because persistence context is closed

**[ Câu hỏi ] 18. What is the meaning of the Controller annotation?**

- To identify that class acts as a controller

**[ Câu hỏi ] 19. What is Spring?**

- Open source framework, light weight

- Layer architecture

- Support java enterprise application

**[ Câu hỏi ] 20. What are features of Spring?**

- Lightweight

- IOC

- AOP

- Container

- MVC

- Transaction management

- JDBC Exception Handling

**[ Câu hỏi ] 21. What is IOC? Dependency Injection?**

- IOC:

o Inversion of Control

o Invert control of creating object from new operator to container

- DI:

o Dependency Injection

o Implementation of IOC

o All dependencies of an object are injected into it by framework

**[ Câu hỏi ] 22. What is AOP?**

- Aspect Oriented Programming

- Modularizes cross-cutting concerns (logging, security, transaction management..)

**[ Câu hỏi ] 23. Explain Aspect, Advice, Joint Point, Pointcut?**

- Aspect:

o a modularization of a concern

o cuts across multiple classes

o Eg: transaction management

- Join point:

o a point during the execution of a program

o in Spring AOP: represents a method execution

- Advice:

o action taken by an aspect at a particular join point

o Different types: around, before and after advice

- Pointcut:

o Collection of Joint Points

**[ Câu hỏi ] 24. What are different types of DI?**

- Constructor injection

- Setter injection

- Interface injection

- Spring support Constructor Injection & Setter Injection

**[ Câu hỏi ] 25 What are the benefits of DI?**

- Minimize amount of code

- Make application more testable

- Loose coupling

- Eager instatiation + lazy loading

- Flexible, security

**[ Câu hỏi ] 26. Could you decribe the life cycle of Spring beans?**

- Bean Container finds definition of bean

- Create a instance of bean

- Depending on the interface, the properties of the bean -> setter method will be called

**[ Câu hỏi ] 27. What is BeanFactory?**

- Base on Factory pattern and IOC design

- Support 2 bean scopes: singleton + prototype

**[ Câu hỏi ] 28. What is ApplicationContext? What is the different between BeanFactory and ApplicationContext?**

- ApplicationContext Derives from BeanFactory

- Has all functionality of BeanFactory + support:

o Internationalization messsages

o Many enterprise service(EJB, JNDI…)

o Access to resource (URL + file)

o Application life-cycle events

o Publish events to bean registered as listenter

o Loading mutiple context

**[ Câu hỏi ] 29. How many types of bean scopes supported by Spring? And explain them.**

- 5 types:

o Singleton: default scope of Spring, 1 object instance per Spring container

o Prototype: new object is created + returned whenever you get the bean

o Request: new object for each HTTP request

o Session: new session is created -> new instance object of bean

o Global session: same as HTTP session scope, applicable in portlet-based web app

**Mục tiêu**

* Audit module 2 Java Web

**URL fill kết quả audit**

* <https://docs.google.com/spreadsheets/d/1cRw6Aqou1YGZfaCjn2HHv4pUQrunx3_G/edit#gid=105659381>

**Youtube Link**

* [[Demo][Module2] Demo tạo ứng dụng servlet](https://www.youtube.com/watch?v=daE0pnE_Q3s&list=PL9yu4ScFhKGyo0bRNxay5QiBTInV_mTPI)
* [[Demo][Module2] Demo ứng dụng Jsp](https://github.com/codegymdanang/CGDN-Java-InterviewQuestion/blob/master/Module_2_JavaWeb/youtube.com/watch?v=In9-boiTd88&list=PL9yu4ScFhKGyo0bRNxay5QiBTInV_mTPI&index=2)
* [[Demo][Module2] Demo CRUD servlet, jsp và jstl](https://www.youtube.com/watch?v=2vH1gTiwOI0&list=PL9yu4ScFhKGyo0bRNxay5QiBTInV_mTPI&index=8)
* [[Demo][Module 2] tổng quan spring mvc](https://www.youtube.com/watch?v=7Wpi_jC8CqA&list=PL9yu4ScFhKGyo0bRNxay5QiBTInV_mTPI&index=15)
* [[Demo][Module 2] DI](https://youtu.be/2BfSQhBNhkY)
* [[Demo][Module 2] Form .](https://youtu.be/Llm_Sxg_2Qg)
* [[Demo][Module2] Demo Tạo SpringMVC bằng IntelliJ](https://www.youtube.com/watch?v=M9Aze3quBKU&list=PL9yu4ScFhKGyo0bRNxay5QiBTInV_mTPI&index=3)
* [[Demo][Module2]Create Project with SpringBoot](https://www.youtube.com/watch?v=tgK0kZCr8mo&list=PL9yu4ScFhKGyo0bRNxay5QiBTInV_mTPI&index=4)
* [[Demo][Module2]Demo Thymeleaf](https://www.youtube.com/watch?v=-YCd6W_UVcg&list=PL9yu4ScFhKGyo0bRNxay5QiBTInV_mTPI&index=5)
* [[Demo][Module2]Demo ModelAndView](https://www.youtube.com/watch?v=vaQxJlfmB6s&list=PL9yu4ScFhKGyo0bRNxay5QiBTInV_mTPI&index=6)
* [[Demo][Module2]PathVariable và Request Param](https://www.youtube.com/watch?v=luc3zTLri6M&list=PL9yu4ScFhKGyo0bRNxay5QiBTInV_mTPI&index=7)
* [[Demo][Module 2]Quay video View Resolver](https://www.youtube.com/watch?v=kL41e8MYrww&list=PL9yu4ScFhKGyo0bRNxay5QiBTInV_mTPI&index=12)
* [[Demo][Module 2] POST, GET , PUT , DELETE](https://github.com/codegymdanang/CGDN-Java-InterviewQuestion/blob/master/Module_2_JavaWeb)
* [[Demo][Module 2]Spring Data Biding](https://www.youtube.com/watch?v=SBbOjbIb-UU&list=PL9yu4ScFhKGyo0bRNxay5QiBTInV_mTPI&index=11)
* [[Demo][Module 2]Sử dụng Entity Manager query db](https://github.com/codegymdanang/CGDN-Java-InterviewQuestion/blob/master/Module_2_JavaWeb)
* [[Demo][Module2]Demo Session && Cookie](https://www.youtube.com/watch?v=ym4-rU9R6fM&feature=youtu.be)
* [[CaseStudy][Module2] Spring](https://www.youtube.com/watch?v=h3eeQvt9X98&list=PL9yu4ScFhKGw6mm6DMtLQ7NodYOd4xz4d)
* [[Demo][Module2] Spring Security](https://youtu.be/WNfuVJptPnQ)
* [[Demo][Module2] i18n](https://youtu.be/cfb2J8qx3Ww)