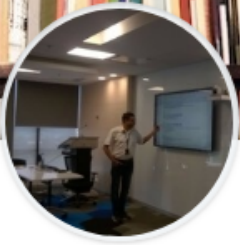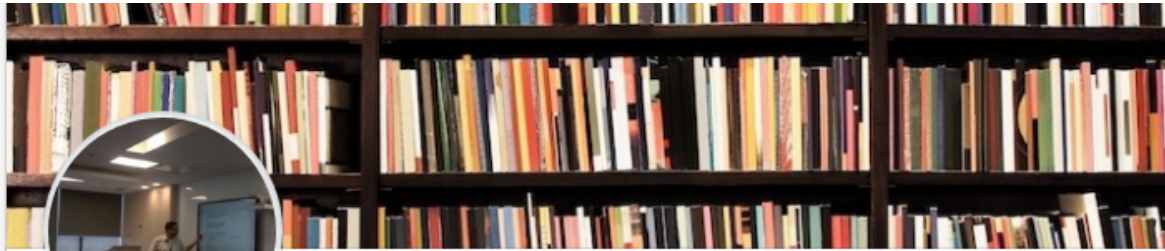# Collection of Questions on Spring

Rajeev Gupta

rgupta.mtech@gmail.com
Java Trainer & consultant
@rajeev_gupta76

Rajeev Gupta

FreeLancer Corporate Java JEE/ Spring Trainer

New Delhi Area, India

Add profile section ▼   More...

🔲 freelance

🏛 **Institution of Electronics and Telecommunication...**

📇 See contact info

👥 See connections (500+)

1. Expert trainer for Java 8, GOF Design patterns, OOAD, JEE 7,Spring 5, Hibernate 5 ,Spring boot, microservice, netflix oss, Spring cloud, angularjs, Spring MVC, Spring Data, Spring Security, EJB 3, JPA 2, JMS 2, Struts 1/2, Web service

2. Helping technology organizations by training their fresh and senior engineers in key technologies and processes.

3. Taught graduate and post graduate academic courses to students of professional degrees.

I am open for advance java training /consultancy/ content development/ guest lectures/online training for corporate / institutions on freelance basis

Contact :

=========================

rgupta.mtech@gmail.com

Clients:

===============

Gemalto, Noida

Cyient Ltd, Noida

Fidelity Investment Ltd

Blackrock, Gurgaon

Mahindra comviva

Steria

Bank Of America

incedo gurgaon

MakeMyTrip

Capgemini India

HCL Technologies

CenturyLink

Deloitte consulting

Nucleus Software

Ericsson Gurgaon

Avaya gurgaon

Kronos Noida

NEC Technologies

A.T. Kearney

ust global

TCS

North Shore Technologies Noida

IBM

Sapient

Accenture

Incedo

Genpact

Indian Air force

Indian railways

Vidya Knowledge Park

Spring

Spring?

- What is Loose Coupling?
- What is a Dependency?
- What is IOC (Inversion of Control)?
- What is Dependency Injection?
- Can you give few examples of Dependency Injection?
- What is Auto Wiring?
- What are the important roles of an IOC Container?
- What are Bean Factory and Application Context?
- Can you compare Bean Factory with Application Context?
- How do you create an application context with Spring?

Spring?

- How does Spring know where to search for Components or Beans?

- What is a Component Scan?

- How do you define a component scan in XML and Java Configurations?

- How is it done with Spring Boot?

- What does @Component signify?

- What does @Autowired signify?

Spring?

- What's the difference Between @Controller, @Component, @Repository, and @Service Annotations in Spring?

- What is the default scope of a bean?

- Are Spring beans thread safe?

- What are the other scopes available?

- How is Spring's singleton bean different from Gang of Four Singleton Pattern?

- What are the different types of dependency injections?

- What is setter injection?

Spring?

- What is constructor injection?

- How do you choose between setter and constructor injections?

- What are the different options available to create Application Contexts for Spring?

- What is the difference between XML and Java Configurations for Spring?

- How do you choose between XML and Java Configurations for Spring?

- How does Spring do Autowiring?

Spring?

- What are the different kinds of matching used by Spring for Autowiring?
- How do you debug problems with Spring Framework?
- How do you solve NoUniqueBeanDefinitionException?
- How do you solve NoSuchBeanDefinitionException?
- What is @Primary?
- What is @Qualifier?
- What is CDI (Contexts and Dependency Injection)?
- Does Spring Support CDI?

Spring?

- Would you recommed to use CDI or Spring Annotations?
- What are the major features in different versions of Spring?
- What are new features in Spring Framework 4.0?
- What are new features in Spring Framework 5.0?
- What are important Spring Modules?
- What are important Spring Projects?

Spring?

- What is the simplest way of ensuring that we are using single version of all Spring related dependencies?

- Name some of the design patterns used in Spring Framework?

- What do you think about Spring Framework?

- Why is Spring Popular?

- Can you give a big picture of the Spring Framework?

Spring MVC

Spring MVC

- What is Model 1 architecture?

- What is Model 2 architecture?

- What is Model 2 Front Controller architecture?

- Can you show an example controller method in Spring MVC?

- Can you explain a simple flow in Spring MVC?

- What is a ViewResolver?

Spring MVC

- What is Model?
- What is ModelAndView?
- What is a RequestMapping?
- What is Dispatcher Servlet?
- How do you set up Dispatcher Servlet?
- What is a form backing object?
- How is validation done using Spring MVC?
- What is BindingResult?
- How do you map validation results to your view?

Spring MVC

- What are Spring Form Tags?
- What is a Path Variable?
- What is a Model Attribute?
- What is a Session Attribute?
- What is a init binder?
- How do you set default date format with Spring?

Spring Boot

Spring boot

- What is Spring Boot?
- What are the important Goals of Spring Boot?
- What are the important Features of Spring Boot?
- Compare Spring Boot vs Spring?
- Compare Spring Boot vs Spring MVC?

Spring boot

- What is the importance of @SpringBootApplication?

- What is Auto Configuration?

- How can we find more information about Auto Configuration?

- What is an embedded server? Why is it important?

- What is the default embedded server with Spring Boot?

- What are the other embedded servers supported by Spring Boot?

Spring boot

- What are Starter Projects?

- Can you give examples of important starter projects?

- What is Starter Parent?

- What are the different things that are defined in Starter Parent?

- How does Spring Boot enforce common dependency management for all its Starter projects?

Spring boot

- What is Spring Initializr?

- What is application.properties?

- What are some of the important things that can customized in application.properties?

- How do you externalize configuration using Spring Boot?

- How can you add custom application properties using Spring Boot?

- What is @ConfigurationProperties?

Spring boot

- What is a profile?

- How do you define beans for a specific profile?

- How do you create application configuration for a specific profile?

- How do you have different configuration for different environments?

- What is Spring Boot Actuator?

Spring boot

-

- How do you monitor web services using Spring Boot Actuator?

- How do you find more information about your application envrionment using Spring Boot?

- What is a CommandLineRunner?

Database Connectivity - JDBC, Spring JDBC & JPA

Database Connectivity

- What is Spring JDBC? How is different from JDBC?

- What is a JdbcTemplate?

- What is a RowMapper?

- What is JPA?

- What is Hibernate?

- How do you define an entity in JPA?

Database Connectivity

- What is an Entity Manager?
- What is a Persistence Context?
- How do you map relationships in JPA?
- What are the different types of relationships in JPA?
- How do you define One to One Mapping in JPA?
- How do you define One to Many Mapping in JPA?

Database Connectivity

- How do you define Many to Many Mapping in JPA?

- How do you define a datasource in a Spring Context?

- What is the use of persistence.xml

- How do you configure Entity Manager Factory and Transaction Manager?

- How do you define transaction management for Spring – Hibernate integration?

Spring Data

Spring Data

- What is Spring Data?
- What is the need for Spring Data?
- What is Spring Data JPA?
- What is a CrudRepository?
- What is a PagingAndSortingRepository?

Unit Testing

Unit Testing

- How does Spring Framework Make Unit Testing Easy?
- What is Mockito?
- What is your favorite mocking framework?
- How do you do mock data with Mockito?
- What are the different mocking annotations that you worked with?
- What is MockMvc?
- What is @WebMvcTest?
- What is @MockBean?
- How do you write a unit test with MockMVC?

Unit Testing

- How do you write an integration test with Spring Boot?

- What is @SpringBootTest?

- What is @LocalServerPort?

- What is TestRestTemplate?

AOP

AOP

- What are cross cutting concerns?
- How do you implement cross cutting concerns in a web application?
- If you would want to log every request to a web application, what are the options you can think of?
- If you would want to track performance of every request, what options can you think of?
- What is an Aspect and Pointcut in AOP?
- What are the different types of AOP advices?
- What is weaving?
- Compare Spring AOP vs AspectJ?

SOAP Web Services

SOAP Web Services

- What is a Web Service?

- What is SOAP Web Service?

- What is SOAP?

- Waht is a SOAP Envelope?

- What is SOAP Header and SOAP Body?

- Can you give an example of SOAP Request and SOAP Response?

SOAP Web Services

- What is a SOAP Header? What kind of information is sent in a SOAP Header?

- Can you give an example of a SOAP Header with Authentication information?

- What is WSDL (Web Service Definition Language)?

- What are the different parts of a WSDL?

- What is Contract First Approach?

SOAP Web Services

- What is an XSD?

- Can you give an example of an XSD?

- What is JAXB?

- How do you configure a JAXB Plugin?

- What is an Endpoint?

- Can you show an example endpoint written with Spring Web Services?

SOAP Web Services

- What is a MessageDispatcherServlet?

- How do you configure a MessageDispatcherServlet?

- How do you generate a WSDL using Spring Web Services?

- How do you implement error handling for SOAP Web Services?

- What is a SOAP Fault?

RESTful Web Services

RESTful Web Services

- What is REST?

- What are the key concepts in designing RESTful API?

- What are the Best Practices of RESTful Services?

- Can you show the code for an example Get Resource method with Spring REST?

- What happens when we return a bean from a Request Mapping Method?

- What is GetMapping and what are the related methods available in Spring MVC?

- Can you show the code for an example Post Resource method with Spring REST?

RESTful Web Services

- What is the appropriate HTTP Response Status for successful execution of a Resource Creation?

- Why do we use ResponseEntity in a RESTful Service?

- What is HATEOAS?

- Can you give an Example Response for HATEOAS?

- How do we implement it using Spring?

- How do you document RESTful web services?

RESTful Web Services

- Can you give a brief idea about Swagger Documentation?

- How do you automate generation of Swagger Documentation from RESTful Web Services?

- How do you add custom information to Swagger Documentation generated from RESTful Web Services?

- What is Swagger-UI?

- What is "Representation" of a Resource?

- What is Content Negotiation?

RESTful Web Services

- Which HTTP Header is used for Content Negotiation?

- How do we implement it using Spring Boot?

- How do you add XML support to your RESTful Services built with Spring Boot?

- How do you implement Exception Handling for RESTFul Web Services?

- What are the best practices related to Exception Handling with respect to RESTful Web Services?

- What are the different error status that you would return in RESTful Web Services?

- How would you implement them using Spring Boot?

RESTful Web Services

- What HTTP Response Status do you return for validation errors?

- How do you handle Validation Errors with RESTful Web Services?

- Why do we need Versioning for RESTful Web Services?

- What are the versioning options that are available?

- How do you implement Versioning for RESTful Web Services?