

Java:

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Difference between JVM, JRE and JDK  
What is classloader and its types  
What is heap and stack memory  
What is Marker interface  
What is functional interface and its examples  
What is Comparator and Comparable  
Internal working of HashMap  
Hash collision  
Difference between interface and abstract classes  
SOLID principles  
Java Design Patterns on high level  
Different OOPs principles  
What is JIT compiler  
What is string constant pool  
Can we overload method having different return type  
Can we overload main method in java  
Why Java doesn't support multiple inheritance?  
In depth knowledge on garbage collection  
Difference between String, StringBuffer, and StringBuilder  
Collections in Java - List, Map and Set  
Basics of Exception Handling  
Copy constructor  
How do you create read-only and write-only class in Java  
Inner classes  
Java 8 features(Streams, Lambda expressions, Anonymous class, Optional class etc)

Spring:

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Spring IOC container  
What is BeanFactory and ApplicationContext and differences between them  
Dependency injection and its types(Constructor Based Dependency Injection, Field or Property-Based Dependency Injection and Setter Based Dependency Injection)  
Bean lifecycle  
Bean scopes  
What is Autowiring  
Global exception handling in spring boot  
Difference between @RequestParam and @PathVariable Annotations  
@Transactional, @SpringBootApplication annotations  
How to create REST API  
Purpose of using @ComponentScan in the class files  
What is ORM framework  
Difference between JPA and Hibernate  
Different types of mapping in jpa  
Difference between JPA and CRUD Repository  
What is @Entity  
Role of EntityManager in JPA  
Types of Cascading operations in JPA  
Use of @Version annotation

Microservices:

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Features of Microservices  
What is Spring Actuator and how do you enable in spring boot application

Service discovery

What is the importance of API gateway in microservices

How does microservice interact with each other(message brokers like Kafka, AWS SQS)

SQL:

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Query to find nth highest salary in mysql

ACID properties

Normalization

Joins

AWS:

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EC2

S3

Lambda function

RDS

API Gateway

Load Balancers