**Interview Question Rounds By Me**

**BirlaSoft**

**1. Tell me about yourself?**

**2: describe current project?**

**Core Java**

**Q. Immutable class implementation?**

**2.** **Can we extends String class : No because it is final**

**3. Can we extends Static class.**

**Ans. extending static classes is allowed, since its members are not necessarily static. the static modifier can only be used on nested classes because it can only be used on class members (and only nested classes can be class members).**

**Q. Abstract Class And Interface.**

**Q. class and interfaces in java?**

**Q. String & string buffer, String Builder**

**Q2) How to create an immutable class?**

**Q.Difference between Hashmap and Concurrent Hashmap?**

**Java 8**

* Lambda expressions,
* Method references,
* Functional interfaces,
* Stream API,
* Default methods,
* Base64 Encode Decode,
* Static methods in interface,
* Optional class,
* Collectors class,
* ForEach() method,
* Parallel array sorting,
* Nashorn JavaScript Engine,
* Parallel Array Sorting,
* Type and Repating Annotations,
* IO Enhancements,
* Concurrency Enhancements,
* JDBC Enhancements etc.

**Ques: Java 8 Stream Intermediate And Terminal Operations?**

**Ans: 1) The main difference between intermediate and terminal operations is that intermediate operations return a stream as a result and terminal operations return non-stream values like primitive or object or collection or may not return anything.**

**2) As intermediate operations return another stream as a result, they can be chained together to form a pipeline of operations. Terminal operations can not be chained together.**

**3) Pipeline of operations may contain any number of intermediate operations, but there has to be only one terminal operation, that too at the end of pipeline.**

**4) Intermediate operations are lazily loaded. When you call intermediate operations, they are actually not executed. They are just stored in the memory and executed when the terminal operation is called on the stream.**

**5) As the names suggest, intermediate operations doesn’t give end result. They just transform one stream to another stream. On the other hand, terminal operations give end result.**

**6) Intermediate Operations :**

**map(), filter(), distinct(), sorted(), limit(), skip()**

**Q: Difference Between Collections And Streams In Java?**

1. **Collections and Streams, both are conceptually two different things which are used for two different purposes. If the collections are used to store the data then the streams are used to perform operations on that data.**
2. **Collections are used to store and group the data in a particular data structure like List, Set or Map. But, streams are used to perform complex data processing operations like filtering, matching, mapping etc on stored data such as arrays, collections or I/O resources.**
3. **You can add to or remove elements from collections. But, you can’t add to or remove elements from streams. Stream consumes a source, performs operations on it and returns a result. They don’t modify even the source also.**

**External Iteration Vs Internal Iteration**

1. **The main specialty of Java 8 Streams is that you need not to worry about iteration while using streams. Streams perform iteration internally behind the scene for you. You just have to mention the operations to be performed on a source.**
2. **Streams are traversable only once. If you traverse the stream once, it is said to be consumed. To traverse it again, you have to get new stream from the source again. But, collections can be traversed multiple times.**

**collection**

**Q.What is the difference between Comparable and Comparator?**

**Q.Difference between hashcode() and equals methods**

**Java.lang.object has two very important methods defined:**

* **public boolean equals(Object obj) and**
* **public int hashCode().**

**Q. What is the difference between Array and ArrayList?**

**Q. why hashmap contains only single null key?**

**Design Pattern**

**Q.Factory Design And Abstact Factory Pattern**

**Multithreding**

**Ques: Race Condition?**

**Spring & Spring Boot**

**Q. Scope of bean ;**

**Q. What is DI & IOC.**

**Q. How activate login in spring boot and LOGGING level in Spring Boot?**

**Q. where you use Spring boot in you project?**

**Hibernate**

**Q: how to composite key create in Hibernate?**

**Ans: By @EmbeddedId,@Embeddable**

**Q. What is JPA?**

**Q. What is hibernate?**

### Q. List the key components of Hibernate.

Key components of Hibernate are:

* Configuration
* Session
* SessionFactory
* Criteria
* Query
* Transaction

**Microservice**

**5.what is microservices and advantages and disadvantages?**

**Microservice Design Pattern architecture** [**https://www.edureka.co/blog/microservices-design-patterns**](https://www.edureka.co/blog/microservices-design-patterns)**;**

### ****API Gateway Design Pattern****

### ****Circuit Breaker Pattern****

**Hypothtical pattern**

**Saga Design pattern**

**Birlasoft**

1. **Check log in Kubernetes**

**Q. How to Handle OutOfMemoryError Exceptions in Java?**

**A java.lang.OutOfMemoryError is a runtime error in Java which occurs when the Java Virtual Machine (JVM) is unable to allocate an object due to insufficient space in the Java heap. The Java Garbage Collector (GC) cannot free up the space required for a new object, which causes a java.lang.OutOfMemoryError. This error can also be thrown when the native memory is insufficient to support the loading of a Java class.**

**IRIS**

**Internal work of ENUM**

**Can we extends class in enum?**

**Can we call wait method out side synchronized blocked?**

**Interrupted thread**