My Java Interview Questions

**Basics and OOPS**

1. Why java preferred than c++?
2. Difference between jdk1.4 and jdk1.5
3. What is polymorphism?
4. What is runtime polymorphism and compile time polymorphism?
5. Can you have 2 main methods in a class?
6. Difference between JVM and JRE
7. What is the super class of all the classes?
8. What methods are there in Object class?
9. Oops concept
10. What is Unicode?
11. Difference between Java bean and Java Class
12. How many java compilers do you know?
13. Can you create an object without using ‘new’ keyword? How?
14. Difference between Abstract class and Interface? When do we use what?
15. Are there any global variables in Java? Where do you declare them? What are they used for?
16. What are the scopes of a variable?
17. What is a marker interface? What is its purpose? How does it work? Examples of marker interface…
18. How do I execute a stored procedure in java? Write code.
19. What is final class
20. Can static methods flow down the inheritance tree? Can you override static methods?
21. Observable and Observer?
22. What is overriding and overloading?
23. Explain final, finally and finalize
24. What is GC? How does it work?
25. What are class loaders? How many types? Do you know about rt.jar file?
26. Equals and hashcode methods
27. Hashing concepts
28. Continue statement in Java?
29. Where all can you initialize a final variable?
30. Reflection API, Cloneable, How does cloning work?
31. toString method? Where does it inherit from? equals and hashcode method? What’s the use of overriding hashcode method?
32. When you create an object using new keyword what happens? What are classloaders?
33. What is abstraction?
34. What is an abstract variable?
35. What is Aggregation and Composition?
36. Can you overload constructors?
37. A java class has lots of methods inside it. How will I know how many methods are there in that class without using any IDE’s? Reflection class?

**Strings**

1. What is immutability?
2. Why are String objects in java made immutable?
3. String mutability, how do you make your class im-mutable?
4. Difference between StringBuffer and StringBuilder? Where do we use StringBuffer?
5. What is String and StringBuffer?
6. Create my own class which behaves exactly like a String except for the method length
7. What are immutable variables? What is the most famous immutable class in Java? How many objects are created when you say String s = a+b+c; where a, b and c are Strings.
8. In a given string, find the number the characters that are repeating.

**Collections**

1. How do you reverse the elements in an array?
2. Difference between LinkedList and ArrayList?
3. Difference between HashSet and TreeSet?
4. Difference between Comparable and Comparator?
5. How do I store 3\*3 matrix in a collection
6. How do you sort an ArrayList?
7. How can you add an integer to an ArrayList, Write Code
8. Difference between ArrayList and Vector
9. Difference between HashMap and Hashtable?
10. Difference between HashMap and ConcurrentHashMap? (US)
11. Difference between Collection and Collections?
12. What is a Collection? Is it a class or an interface?
13. Sort a collection of dog objects.

**Exceptions**

1. Difference between Exception and Error
2. Difference between throw and throws? When do you use them?
3. Explain throws?
4. What is RuntimeException?
5. What is checked and unchecked exceptions?
6. When do you throw and Exception, is it necessary to handle the throwed Exception in the calling method?
7. Explain exceptions in Java? Importance of Finally? What if there is an exception in catch block? Will finally run?
8. Can you write a custom Business exception? How do we display it the user?
9. How do you create user defined exceptions?

**Threads**

1. How do I synchronize just one line of code?
2. What is synchronized?
3. There are 2 methods in an object which are synchronized, can 2 threads access these methods simultaneously?
4. What are wait, notify and notifyall methods? Can you synchronize the whole class? If yes how do you do it?
5. Have a static synchronized method and synchronized method in a class, how will it get executed?
6. Can you stop a thread?
7. When you call wait method inside synchronized context what will happen?
8. Thread life cycle
9. What is thread priority? How will it work?
10. What are Threads? What are the 2 ways in which you can create a thread. How do you start a Thread?

**IO**

1. What is Serialization? What methods are used to serialize an object? Significance of serial Id in serialization?
2. Write a program for de-serialization.
3. What is Externalization?
4. Two different JVM? How do you transfer an object from this JVM to that JVM? How does the other JVM know that it’s this object to be serialized. Signature for serialize id? How does Serialization happens internally?

Questions and Answers

**Basics and OOPS**

1. Why Java preferred than c++?

|  |  |
| --- | --- |
| **C++** | **Java** |
| Distructors need to be called. Programmer needs to manage the memory | Automatic Garbage Collection |
| Single and Multiple inheritance | Single Inheritance |
| Operator overloading for most operators. | Operators are not overridable. |
| Pointers, references, and pass-by-value are supported for all types (primitive or user-defined). | All types (primitive types and reference types) are always passed by value. |
| Runs as native executable machine code for the target instruction set(s). | Runs in a virtual machine. |

1. Difference between jdk1.4 and jdk1.5

Annotations (Metadata), Generics, Autoboxing, Enumerations, Enhanced For Loop, Static Imports

1. What is polymorphism? – Refer Doc
2. What is runtime polymorphism and compile time polymorphism? – Refer Doc
3. Can you have 2 main methods in a class?

Yes, with different return types or arguments

1. Difference between JVM and JRE – Refer Doc
2. What is the super class of all the classes?

Object Class

1. What methods are there in Object class?

toString, equals, hashCode, wait, notify, notifyAll, finalize

1. Oops concept – Refer Doc
2. What is Unicode?

The Unicode standard uses hexadecimal to express a character

1. Difference between Java bean and Java Class
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3. Can you create an object without using ‘new’ keyword? How?

Yes, Class.Forname() – Classloaders

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