

## BASICS OF JAVA

- 1) What is JDK?
- 2) Which is the latest version of JAVA?
- 3) Explain the advantages of JAVA?
- 4) Explain JAVAC and JAVA Commands and which folder they are available?
- 5) What is signature of main method?
- 6) Explain keyword? list some keywords in JAVA?
- 7) Explain identifiers in JAVA?
- 8) Explain about Literals?
- 9) Explain why JAVA is platform independent?
- 10) Is JVM platform independent?
- 11) Explain the difference between compiler and interpreter?
- 13) What is Rule and Convention?
- 14) Explain about JRE?
- 15) Explain variables in JAVA and Different types of Variables?
- 16) Mention all the primitive data types in java?
- 17) Explain about primitive variables?
- 18) Explain Reference variables?
- 19) What is String in java?

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- 20) Explain Methods in JAVA and why we use Methods?
- 21) Write the general Syntax for a method?
- 22) What is the Default execution method in java?
- 23) Can we Execute Java Program without main method?
- 24) Can we Compile Java Program without main method?

## Object Oriented Programing

### Class and Object

- 25) Explain what is an Object?
- 26) Explain what is a Class?
- 27) Explain Members of a Class?
- 28) Explain Static Members and Non Static Members of a class?
- 29) List the Difference between Static and NonStatic Members?
- 30) Explain About Global variables?
- 31) Explain How can you access Static Global Variables and NonStatic Global Variables of a class?
- 32) What will be the Default values for Global Variables, Numeric Variables, Boolean variable?
- 33) Explain the difference between local and Global Variables?
- 34) How can You Declare Constant variables in java?
- 35) Can we just declare a final global variable?
- 36) Explain About Static Blocks and NonStatic Blocks?
- 37) When does Static Block gets Executed and how many times Static Blocks will be Executed in one Execution cycle?
- 38) When does Non Static Block gets Executed and How many times Non Static Blocks will be Executed in one execution cycle?



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- 39) What Does a Method Return type Signifies?
- 40) Can we develop a method without Return type?
- 41) What is the data type of reference variable in java?
- 42) Explain about Constructors and Different types of Constructors?
- 43) What is default Constructor?
- 44) What is Constructor overloading? why we use it?
- 45) what is this() statement? Why we use it?
- 46) What is Recursion?
- 47) Recursion while constructor overloading will result in compile time or run time error?
- 48) what is "this" keyword?
- 49) Explain instance variable hiding?
- 50) Explain the use of "this" Keyword?
- 51) Explain about Has-A Relationship?

## **Inheritance**

- 52) Explain Inheritance and different types of inheritance?
- 53) Explain the use of extends keyword?
- 54) Does java support multiple inheritance? Justify?
- 55) Explain about Diamond Ambiguity problem?
- 56) Explain super () calling Statement and "super" keyword?
- 57) What is the difference between this () and super () calling statement?
- 58) What is the difference between this and super keywords?
- 59) Explain what is Constructor chaining?

## **Polymorphism**

- 60) Explain method overloading with real time example?
- 61) why we need method Overloading?

- 62) explain method overriding with real time examples?
- 63) can we override Static methods?
- 64) Explain about Typecasting?
- 65) Explain Primitive Casting?
- 66) Explain Auto widening and Explicit Narrowing?
- 67) What is Derived or Object Casting?
- 68) Explain Auto upcating and Explicit Downcasting?
- 69) Can we Achieve Object Casting without inheritance? Justify
- 70) Can we Achieve Downcasting without upcasting? Justify
- 71) Explain About Polymorphism?
- 72) Explain Different types of polymorphism?
- 73) When Does Java throws Class Cast Exception?

74) Explain the use of instance Of Operator?

## **Abstraction**

- 75) Explain about Abstract methods?
- 76) what is an Abstract class?
- 77) Explain why we cannot Instantiate an Abstract class?
- 78) What is the rule to be followed by the Sub class of an Abstract class?
- 79) Can abstract Class inherit from another abstract class?
- 80) Is abstract class 100% abstract ? explain?
- 81) Explain an interface in java?
- 82) what is the difference between Abstract class and interface?
- 83) Does Abstract class have Constructors? if yes why?
- 84) Does interfaces have constructors?
- 85) can we instantiate an interface?



- 86) Explain about implements keyword in java?
- 87) Can an interface inherit from another interface?
- 88) Explain Abstraction, Steps to achieve Abstraction and its advantages?
- 89) Can we develop final methods in interface?
- 90) Can we develop a final abstract class?
- 91) Can we Develop a static method in abstract class?
- 92) Can we just declare a variable in interface without initializing?

## Encapsulation

- 93) Explain About Packages?
- 94) Why we need Packages?
- 95) What are the Different access levels in java ? Explain?
- 96) Explain about Singleton Class?
- 97) Explain What is Encapsulation?
- 98) Explain about Java Bean Class?

## Libraries

### Object class

- 99) Which is the super most class for all the classes in Java?
- 100) Explain "toString()", "hashCode()", "equals()" of object class?
- 101) Can subclass override "toString()", "hashCode()", "equals()" of Object Class?
- 102) Explain final method in java?
- 103) Explain final class in java?
- 104) Explain the use of finalize() method in java?
- 105) What is the use of clone() method?
- 106) What is a marker interface?
- 107) Explain and mention all the marker interfaces in java?
- 108) Explain about Arrays in java?

109) Explain primitive Array and Derived(Class-type) Array?

### **String in java**

110) Justify how Strings are immutable in Java?

111) Can we inherit String class in java? Justify.

112) Explain the behaviour of "toString()", "hashCode()", "equals()" of String Class?

113) Explain String pool area?

114) Explain the difference between "==" operator and .equals() method?

115) List out the difference between String, StringBuilder, and String buffer?

### **Collection**

116) Explain about Collection API/Framework?

117) Explain List, Set, Queue type of collection?

118) List out the differences between List, Set, Queue type of collection?

119) Explain the features of ArrayList, LinkedList and PriorityQueue with a Program?

120) Explain the features HashSet, LinkedHashSet and TreeSet with a Program?

121) Explain the need for Comparable and Comparator Interfaces?

122) List out the differences between Comparable and Comparator Interfaces?

123) Explain generics and how to apply it to collection?

124) Explain About Maps?

125) Explain how HashMap works with a program?

126) Explain Boxing and Unboxing in Java?

127) What are Wrapper classes and why it is required?

### **Exception**

128) Explain Exceptions in java?

129) Explain how to handle exceptions?

130) Explain Checked Exceptions and unchecked Exceptions?



131)list out the difference between checked Exceptions and unchecked Exceptions?

132)list out the differences between "throw" and "throws" keywords?

133)Explain What in Generic handler and Specific handler?

134)Explain the use of finally block?

135)Explain the different ways of handling Checked Exceptions?

136)What is the Difference between final ,finally,finalize() in java?

### **FileHandling**

137)Explain how to write data into a text file?

138)what is the use of Scanner Class in java?

139)Explain How to read data from a text file?

140)Explain How to read the String from the console?

141)Explain What is Serialization and De-serialization?

### **Threads**

142)Explain about Threads in Java and its Properties?

143)Explain the different ways to create Thread in JAVA?

144)What is the use of Sleep() method in java?

145)Explain the "start()" and "run()" methods of Thread Class?

146)Explain what is a Thread Safe class and how to create it?

147)Explain Thread Deadlock and how to avoid it?

148)Explain what is InterThread Communication And its methods?

### **Most frequently asked questions**

149)Explain the differences between method overloading and overriding?

150)Explain the differences between Abstract class and interface?

151)What is the difference between this() and super() calling statement?

152)What is the difference between this and super keywords?

- 153) Explain inheritance and its types? give a real time example?
- 154) Why multiple inheritance is not possible in java?
- 155) Explain upcasting and downcasting?
- 156) Explain polymorphism and its types? give a real time example?
- 157) Explain Abstraction and how to achieve it?
- 158) Explain Encapsulation and Explain all the Access privileges in JAVA?
- 159) list out the differences between List, Set, Queue type of collection?
- 160) Explain Garbage Collection in java?
- 161) What is the Difference between final, finally, finalize() in java?
- 162) Explain the difference between Encapsulation and Abstraction?
- 163) Write a java program to reverse a given String?
- 164) Write a java Program to handle Exception using Catch block?
- 165) Write a program to Count the numbers in a given String  
"hey1234876hey"?
- 166) Write a java Program to reverse the words in a given String? ex: "name is James" to "James is name"