Core java interview questions

# core java concept:

1. Difference between JDK and JRE?
2. why is java platform-independent language?
3. Difference between an abstract class and an interface?
4. Difference between final,finally and finalize?
5. Difference between stack and heap memory?
6. Difference between method over loading and method overriding?
7. Difference between private and protected modifier?
8. what is constructor overloading in java?
9. what is the use of super keyword in java?
10. Difference between static methods,static variables and static class?
11. what exactly System.out.println in java?
12. What part of memory – Stack or Heap is cleaned in the garbage collection process?

# Object oriented Programming:

1. What are the object-oriented features supported by java?
2. What are the different access specifires used in java?
3. Difference between composition and inheritance?
4. Purpose of an abstract class?
5. What are the difference between a constructor and a method of a class in java?
6. What is the diamond problem in java and how to solved it?
7. Difference between local and instance variables in java?
8. What is a marker interface in java?

# Data structure and algorithms :

1. Why are string immutable in java?
2. Difference between creating a string using new() and as a literal?
3. What is the collections framework ?
4. Difference between Arraylist and Linkedlist?
5. Difference between HashMap and a TreeMap?
6. Difference between HashSet and a TreeSet?
7. Difference between an Iterator and a ListIterator?
8. Purpose of the Comparable interface?
9. Purpose of the java.util.concurrent package?

# Exception Handling:

1. What is an exception?
2. How does an exception propagate throughout the java code ?
3. Difference between checked and unchecked exceptions?
4. Use of try-catch block in java?
5. Difference between throw and throws?
6. What is the use of finally block?
7. What’s the base class of all exception classes?
8. What is java Enterprise Edition (Java EE)?
9. Difference between a servlet and a JSP?

# Multithreading :

1. What Is a thread and what are the different stages in its lifecycle?
2. Difference between a process and a thread?
3. What are the different types of thread priorities available in java?
4. What is context switching in java?
5. Difference between user threads and daemon threads in java?
6. What is synchronization?
7. What is deadlock?
8. Use of wait() and notify() methods?
9. Difference between synchronized and volatile in java?
10. What is the purpose of the sleep() method in java?
11. Difference between wait() and sleep() in java?
12. Difference between notify() and notifyAll() in java?