



## Career Services Assignment 3 – Java Flash Cards

**Instructions:** Research common Java interview questions online and create 20 flash cards from the information you find. Study your flash cards regularly to better prepare for interviews. Fill out the table below with the information you put on each of your flash cards.

Front of Card	Back of Card
What is Java?	Java is platform independent. It is a collection of objects. It was created by Sun Microsystems.
What are the features of Java	OOP – object oriented, Inheritance, Encapsulation, Polymorphism, and Abstraction
How does Java enable high performance?	Java uses Just in Time compiler to enable high performance.
Name the Java IDEs?	Eclipse and NetBeans
What do you mean by constructor?	When a new object is created, a constructor gets invoked corresponding to a class. The constructor is a method which has the same name as the class name.
What is meant by local variable and instance variable?	<b>Local variables</b> are defined in the method and scope of the variables that exist inside the method itself. <b>Instance variable</b> is defined inside the class and outside the method and the scope of the variables exists throughout the class.
What is a Class?	A Class has variables and a method.
What is an Object?	An instance of a class. The object has state and behavior.
What are the OOPs concepts?	Inheritance Encapsulation Polymorphism Abstraction Interface
What is inheritance?	One class can extend to another class. Codes can be used from one class to another.
What is Encapsulation?	Protects the code from others
What is polymorphism?	A single object can refer to the super-class or sub-class depending on the reference type .



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What is meant by interface?	An interface is a template that only has method declarations, but not the method implementation.
What is meant by abstract class?	Create an abstract class by using the Abstract keyword before the class name.
Difference between Array and ArrayList	Array: Size should be given at the time of the array declaration ArrayList: Size may not be required, it is dynamic.
Difference between String, StringBuilder and StringBuffer:	String – String variables stored in a String Pool, it cannot be erased. StringBuilder – Same as StringBuffer, however it is not synchronized. StringBuffer- Values are stored in a stack. If a value is changed, the new value replaces the old value. It is synchronized.
Public & Private specifiers	Public members are visible inside the same package as well as the outside package. Private members are available in the same class only and not for other classes.
Difference between default and protected access specifiers	Default – visible to classes inside the package and invisible to classes outside the package Protected – the same as default but if a class extends then it is visible even if it is outside the package.
Difference between HashMap & HashTable	HashMap – methods are not synchronized, iterator is used to iterate the value, Allows one null key and multiple null key values, performance is high HashTable – methods are synchronized, Enumerator is used to iterate the value, doesn't allow null, performance is slow
What are the classes and Interfaces that are available in collections?	<b>Interfaces</b> Collection List Set Map Sorted Set Sorted Map Queue <b>Classes</b>



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	<b>Lists</b> ArrayList Vector LinkedList <b>Sets</b> HashSet LinkedHashSet TreeSet <b>Maps</b> HashMap HashTable TreeMap LinkedHashMap <b>Queue</b> PriorityQueue
Explain the priority queue	Linked list class has been enhanced to implement the queue interface. Queues can be handled with a linked list. The purpose of a queue is “Priority-in, Priority-out”.