# Career Services Assignment 3 – Java Flash Cards

**Points possible:** 50

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| Category | Criteria | % of Grade |
| Completeness | All requirements of the assignment are complete. | 100 |

**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.

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| **Front of Card** | **Back of Card** |
| What is Java | Is high-level programming language and is platform independent and was created in 1995. |
| What are the features of Java | Object Oriented Programming concept, Platform Independent, high performance and multi-thread (user can create multiple threads by extending the thread class or by implementing the runnable interface). |
| How does Java enable high performance | It uses Just In Time compiler to enable high performance. It is used to convert the instructions into bytecodes. |
| Name Java IDE’s | Eclipse, NetBeans |
| What is meant by the Local Variable and the Instance Variable. | Local Variable is defined in the method and scope of the variables that exist inside the method itself.  Instance Variable is defined inside the class and outside the method and the scope of the variables exists throughout the class. |
| What is class | All java codes are defined in a class. It has variables and methods.  Variables- attributes which define the state of a class.  Method- the place where the exact business logic must be done. Contains set of statements or instructions |
| What is an Object | An instance of a class. Object has state and behavior.  new() keyword -creates an instance of that class |
| What are the OOPs concepts | Inheritance, Encapsulation, Polymorphism, Abstraction and interface |
| What is Interface | Is a template which has only method declaration and not the method implementation. Used to overcome the he problem of not being able to use multiple inheritance. |
| What is the difference between Array and Array List | Array size should be given at the time of the array declaration (String[] name =new String[2]) while Array List size may not be required. It changes the size dynamically (ArrayList name =new ArrayList)  To put an object into array we need to specify the index. Name[1] =”book”) while in Array List no index is required (name.add(“book”)) |
| Difference between String, String Buffer and String Builder. | Strings are stored in constant string pool and cannot be erased.  String Buffer values are stored in a stack and new values replace old values. Slower that String builder.  String Builder same as string buffer with fast performance. |
| Explain public and private access specifiers | Methods and instance variables are known as members. Public members are visible in the same package as well as outside package that is for other packages.  Private members are visible in the same class only and not for classes in same package or outside package. |
| What is the meaning of collections in Java | It’s a framework that is designed to store the objects and manipulate the design to store the objects. Used to search, sort, manipulate, insert and delete. |
| What are all the Classes and Interfaces that are available in the collections | Interfaces(collections, List, Set, Map, Sorted Set, Sorted Map, Queue), Classes(Lists, Array Lists, Vector, Linked Lists), Sets(Hash Set, Linked Hash Set,, Tree Set), Maps(Hash Map, Hash Table, Tree Map, Linked Hashed Map), Queue(Priority Queue) |
| What is the final keyword in Java | Final variable once declared the value could not be changed.  Final method couldn’t be overridden.  Final class couldn’t be subclassed |
| What is a thread | The flow of execution. Java has at least one thread called man thread. |
| What is OOPs | Object Oriented Programming system-programs are considered as a collection of objects |
| What OOPS concept is used as a reuse mechanism | Inheritance |
| Which OOPs concept exposes only the necessary information to the calling functions | Encapsulation |
| What is the default access modifier in a class | The default access modifier of a class is internal and the default access modifier of a class member is private |