Topic Covered In Java 7

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| **Topic/Activity Name** |
| Rationale |
| Objectives |
| Introducing Java |
| Identifying the Features of Java |
| Java Architecture |
| Identifying the Building Blocks of a Java Program |
| Defining a Class |
| Identifying Data Types |
| Identifying Class Members |
| Defining a Package |
| Accessing Class Members |
| Using Objects |
| Using Access Specifiers |
| Using Access Modifiers |
| Working with Operators |
| Using the Arithmetic Operators |
| Using the Assignment Operators |
| Using the Comparison Operators |
| Using the Logical Operators |
| Working with Conditional Constructs |
| Using the if Construct |
| Using the if…else Construct |
| Using the switch Construct |
| Working with Loop Constructs |
| Using the for Construct |
| Using the while Construct |
| Using the do…while Construct |
| Manipulating Arrays |
| Creating Arrays |
| Accessing Arrays |
| Manipulating Enums |
| Declaring Enums |
| Accessing Enums |
| Manipulating Strings |
| Using String Class |
| Using StringBuilder and StringBuffer Class |
| Implementing Inheritance |
| Identifying the Various Types of Inheritance |
| Inheriting a Class |
| Inheriting an Interface |
| Implementing Polymorphism |
| Static Polymorphism |
| Dynamic Polymorphism |
| Handling Exceptions |
| Exploring Exceptions |
| Identifying Checked and Unchecked Exceptions |
| Implementing Exception Handling |
| User-defined Exceptions |
| Using the assert Keyword |
| Understanding Assertions |
| Implementing Assertions |
| Exploring UI Components |
| Identifying UI Components |
| Creating Inner Class |
| Regular Inner Class |
| Static Inner Class |
| Method-local Inner Class |
| Processing Strings Using Regex |
| Working with the Pattern and Matcher Classes |
| Working with Character Classes |
| Implementing Localization |
| Localizing Date |
| Localizing Currency |
| Localizing Text |
| Collection and generic |
| Using the Set Interface |
| Working with the HashSet Class |
| Working with the TreeSet Class |
| Using the List Interface |
| Working with the ArrayList Class |
| Working with the LinkedList Class |
| Working with the Vector Class |
| Using the Map Interface |
| Working with the HashMap Class |
| Working with the TreeMap Class |
| Working with the Hashtable Class |
| Using the Deque Interface |
| Working with the ArrayDeque Class |
| Implementing Sorting |
| Using the Comparable Interface |
| Using the Comparator Interface |
| Using Threads in Java |
| The Basic Concept of Multithreading |
| Advantages and Disadvantages of Multithreading |
| The Thread Class |
| The Life Cycle of a Thread |
| Creating Threads |
| Creating a Thread by Extending the Thread Class |
| Creating a Thread by Implementing the Runnable Interface |
| Working with Input Stream |
| Using the FileInputStream Class |
| Using the BufferedInputStream Class |
| Using the FileReader Class |
| Using the BufferedReader Class |
| Introducing NIO |
| Using the Path Interface and the Paths Class |
| Identifying the Types of JDBC Drivers  Project Developed with Using Swing Concepts |

Applet Syllabus:

Life cycle of an Applet.

Graphics in Applet   
Displaying image in Applet   
Animation in Applet   
EventHandling in Applet