7.What are different ways to create String Object

Ans:

There are 2 different ways

* String object creation using string literal

Ex: String str = “ Hello Everyone”;

* String object using new keyword

Ex: String str = new String(“Hello Everyone”) ;

8. How can we make String upper case to lower case?

Ans:

The java string **toLowerCase()** method converts all characters of the string into a Lowercase letter.

* Using toLowerCase()

Ex: String str = str.LowerCase();

9. How can we make String Lower case to Upper case?

Ans:

The java string **toUpperCase()** method converts all characters of the string into a UpperCase letter.

* Using toUpperCase()

Ex: String str = str.UpperCase();

10. What is String subsequence method?

Ans: It is a Java String Method used to return a new character sequence that is a subsequence of the user-specified string.

By Using

public CharSequence subSequence(int beginIndex, int endIndex)

11. How to Split String in java?

Ans: This String Split() method is used to decompose or split the invoking Java String into parts and return the Array. Each part or item of an Array is delimited by the delimiters(“”, “ ”, \\) or regular expression that we have passed.

35. Write test cases for how to test just the withdrawing functionality from ATM ( Minimum 10 test cases required )

Ans:

* Insert Card

1.If the card is in working condition (expired or not) then inserts into ATM machine or else displays a message stating card is expired.

2.While entering ATM pin number, if customer gives correct number then machine process to next step or else displays wrong ATM pin number.

* Authenticate customer

3.When customer withdraw amount then an authenticate email will generate to account holder email or phone. If customer did not get an email then there is some aunthenticate issue.

* Select withdrawl

4. While selecting withdrawl, if customer gives more than some X amount which he/she have in account then is throws an paper message stating “There is no enough amount”.

5.If customer wants some particular denomination of amount like 20’s,10’s .If ATM have customer required bills. It proceed and give amount or else it displays no 20’s& 10’s.

6.After giving required amount, then machine should goes to next step. Before dispensing amount, it should eject card.If card is not ejecting automatically then there is an issue.

7.After withdraw , machine should ask whether customer need to do more transactions or not.

8.Once everthing is done,machine should ask whether customer wants printed receipt of balance in account or not.

36. Write to test scenarios to test Pencil

Ans:

* Verify the outer coloring of the pencil’s paint.
* Check if the pencil writes when putting in water for some time.
* Verify that the text written by pencil can be erased by normal erasers.
* Check that the color of the text written by pencil is as per the specifications.
* Verify that the text written with the pencil is readable.
* Verify that the quality and strength of the pencil’s wood.
* Verify that the pencil can be sharpened easily by a normal sharpener.

37. What is JVM and explain me the Java memory allocation

Ans: JVM-Java Memory Management

It is the process in which the virtual memory sections are set aside in a program for storing the variables and instances of structures and classes.

The memory isn’t allocated to an object at declaration but only a reference is created. For the memory allocation of the object, new() method is used, so the object is always allocated memory on the heap.

38. What is Polymorphism and encapsulation?

The word polymorphism means having many forms. It is often expressed as *one interface, multiple functions*.

It is a mechanism of wrapping the data and code acting on the data together as a single unit.

39. What is method overloading and Method over riding?

Ans:

Method Overloading:

If two or more methods have same name, but different argument then it is called method overloading.

Method Overriding:

If subclass provides specific implementation to any method which is present in its one of parents classes then it is known as method overriding.

40. Why string is Immutable?

Ans: String is a final and immutable class. It cannot be inherited, and once created, we can’t alter the object.

Q41. What is the difference between String and String buffer?

Ans:

 String is immutable :Once created, cannot be modified

 StringBuffer is mutable :we can be modify.

Q42. What is the difference between array and array list?

Ans:

We cannot change the size of the array once created, but ArrayList can grow and increase its size automatically.

Q43. What is the difference between hash map and Hash table?

Ans:

1.Hash Map is not Synchronized where as Has table is synchronized  
2.Hash Table allows null key values where as Hash Map allows one null key and any no.of null values.

3.  Hash Map sorts mappings based on the ascending order of keys.

Hashtable doesn’t guarantee any kind of order.

Q44. What is a vector in Java?

Ans: It implements a growable array of objects. Similar to an Array, it contains components that can be accessed using an integer index. The size of a Vector can grow or shrink as needed to accommodate adding and removing items.

Q45. What is set in java?

Ans: Java Set is a collection of elements that contains no duplicate elements. Unlike List, Java Set is NOT an ordered collection, it’s elements does NOT have a particular order.We cannot access elements by their index and also search elements in the list.

Q46. What is an abstract class?

Ans: A class that is declared as abstract is known as abstract class. It needs to be extended and its method implemented, cannot be instantiated.

Q47. What is an interface?

Ans: An interface is a reference type in Java. It is similar to class and it is a collection of abstract methods. A class implements an interface, inheriting the abstract methods of the interface.

Q48. Why Java is Platform independent?

Ans: When we write a Java code and feed it to the compiler a .class file will be generated. Now this .class file common for all kind of system whether its Linux or Mac or Windows.  Now to run this .class file, we need JRE (which is actually implementation of JVM). So Mac will have its own version of JRE, Widows will have different and Linux has different one too. But one thing to notice here is that the input for all these means the .class file is same.

Q49. What are access modifiers?

Ans:

There are 4 types of Access modifiers.

* Private
* Public
* Protected
* Default

Q50. What are java exceptions? Give me an example.

Ans: An exception is an abnormal event that occurs during the execution of a program and disrupts the normal flow of the program's instructions

Ex: Public static void main(string args[])

{

Int num[]={2,3,5,6}

System.out.prinln(num[7]);

}

It throws “outofboundexception”

Q51. What is the difference between throws and throwable?

Ans:

Throws: **It** is a keyword in java which is used to throw an exception manually. Using throw keyword, you can throw an exception from any method or block. But, that exception must be of type **java.lang.Throwable** class or it’s sub classes.

Throwable: **It** is a super class for all types of errors and exceptions in java. This class is a member of **java.lang** package. If we want to create our own customized exceptions, then our class must extend this class.

Q52. What is the difference between Error and exception?

Ans:

Error occurs at runtime only.

 Exceptions can occur at compile-time or runtime.

Q53. What is the difference between Error, throwable and exception?

Ans:

Throwable is super class of Exception as well as Error. In normal cases we should always catch sub-classes of Exception, so that the root cause doesn't get lost.

Q54. What are collection APIs, give me an example.

Ans: It is a set of classes and interfaces that support operation on collections of object.

|  |
| --- |
| public static void main(String[] args)      {            int arr[] = new int[] { 1, 2, 3, 4 };          Hashtable<Integer, String> h = new Hashtable();     h.put(1, "java");          h.put(2, "lang");    System.out.println(arr[0]);          System.out.println(h.get(1));          }  Q55. What is the difference between final and finally?  Ans:  Final: The **final**keyword can be used with class method and variable.  A final class cannot be instantiated, a final method cannot be overridden.  Finally: The **finally**keyword is used to create a block of code that follows a try block.  A finally block of code always executes, whether or not an exception has occurred.  Q56. Will java supports multiple inheritance?  Ans: The Java supportsmultiple inheritance of type, which is the ability of a class to  implement more than one interface. |

Q57. What are the different types of interface? (Ans List, set, Queue)

Ans:

Set — a collection that cannot contain duplicate elements

List — an ordered collection

Queue — a collection used to hold multiple elements prior to processing.

Q58. What are wrapper class? Give me an example

Ans: Wrapper classes provide a way to use primitive data types.

byte to Byte,int to Integer,double to Double,float to Float,chat to character etc.,

ArrayList <int > myNumbers = new ArrayList<Integer>();

Q59. What is boxing and unboxing in Java? Explain with an example.

Ans:

Boxing: It is the automatic conversion that the Java compiler makes between the primitive types and their corresponding object wrapper classes.

Public static void bmethod(Integer num)

{

Sysout(num);

Public static void main(string args[]);

{

bmethod(2);

}

}

Output:2

Unboxing:It is just the reverse process of autoboxing. Automatically converting an object of a wrapper class to its corresponding primitive type is known as unboxing

Public static void umethod(Int num)

{

Sysout(num);

Public static void main(string args[]);

Integer inum -= new Integer(120);

{

umethod(120);

}

}

Output:120

Q60. Explain for each loop,

Ans: The for-each loop in Java is generally used for iteration through the array elements in different programming languages.

For statement includes initialization of an expression that specifies an initial value for an index, and the following condition expression determines whether the loop is continued or not and the last iteration expression allows the index to be modified at the end of each pass. It is known as the **for-each** **loop** because it traverses each element one by one.

Q61. What are iterators, explain with an example

Ans: Iterator is used for iterating various collection classes such as [HashMap](https://beginnersbook.com/2013/12/hashmap-in-java-with-example/), [ArrayList](https://beginnersbook.com/2013/12/java-arraylist/" \o "ArrayList in java with example programs – Collections Framework" \t "_blank), [LinkedList](https://beginnersbook.com/2013/12/linkedlist-in-java-with-example/) etc

Public static void main(string args[]){

ArrayList names = new Arraylist();

Names.add(“Java”);

Names.add(“lang”);

Iterator it = names.iterator();

While (it.hasnext())

{

String obj =(string)it.next();

Sysout(obj);

}

}

Output:

Java

Lang

Q 63. What is multithreading, serialization and Generics in Java

Ans:

Multithreading:

The process of executing multiple threads simultaneously is known as multithreading.

Generics:

Generics can be used in conjunction with classes and methods. They’re used to specify a single declaration for a set of related methods.Generics are checked at compile-time for type safety