1.Explain about the main method in java?

main(): **It is a default signature which is predefined in the JVM**. It is called by JVM to execute a program line by line and end the execution after completion of this method. We can also overload the main() method. String args[]: The main() method also accepts some data from the user.

2. what are the different control flow statements available in java?

ava provides three types of control flow statements.

1. Decision Making statements
   * if statements
   * switch statement
2. Loop statements
   * do while loop
   * while loop
   * for loop
   * for-each loop
3. Jump statements
   * break statement
   * continue statement

3.what is the difference between the break and continue statements

**The break statement is used to terminate the loop immediately.** **The continue statement is used to skip the current iteration of the loop**. break keyword is used to indicate break statements in java programming. continue keyword is used to indicate continue statement in java programming.

4. What is an Array? How will you declare an array in java?

An array is **a container object that holds a fixed number of values of a single type**. The length of an array is established when the array is created. After creation, its length is fixed.

We declare an array in Java as we do other variables, by providing a type and name: **int[] myArray;** To initialize or instantiate an array as we declare it, meaning we assign values as when we create the array, we can use the following shorthand syntax: int[] myArray = {13, 14, 15};

5. When will you get ArrayIndexOutOfBoundsException?

ArrayIndexOutOfBoundsException occurs **when we access an array, or a Collection, that is backed by an array with an invalid index**. This means that the index is either less than zero or greater than or equal to the size of the array.

6. Define the Syntax to create an object for a class.

What are the naming conventions to be followed while creating a class,

method and a variable.Explain with examoles

The new keyword is also used to create an array. The syntax for creating an object is: **ClassName object = new ClassName();**

Java naming convention is a rule to follow as you decide what to name your identifiers such as class, package, variable, constant, method, etc.

Class ----- public class **Employee**{ }

Interface ----- interface **Printable{ }**

Method------- class Employee{  
 void **draw()**  
 { }  
 }

Variable---------- class Employee{  
 int **id**;  
 }

7. What is Variable?How will you declare a variables in java?

A variable is a name assigned to a value that is stored inside the system memory. The value can be updated during the program execution. In Java programming, the variables used for the program need to declare them first. The variable is declared**using a data type followed by the identifier name**.

**boolean:**false

**byte:**(byte) 0

**double:**0.0d

**short:**(short) 0

8. What is String in java? Is it a Data Type?

A String in Java comes under non-primitive data type. In general terms, a String is nothing but a collection of characters i.e. the String data type stores a sequence of characters. Yes, the String is a data type.

9.What are the different ways to create the String Object in java?

**There are two ways to create a String object:**

1. By string literal : Java String literal is created by using double quotes. For Example: String s=“Welcome”;
2. By new keyword : Java String is created by using a keyword “new”. For example: String s=new String(“Welcome”);

10.What is the Difference between .Equals and ==?

The main difference between the . equals() method and == operator is that **one is a method, and the other is the operator**. We can use == operators for reference comparison (address comparison) and . equals() method for content comparison.

1. What is Selenium? What are the different Selenium components? Explain about Selenium Webdriver.

[Selenium](http://qatechhub.com/selenium/) is an automation testing tool used to test web-based applications. Selenium is not a single tool but a suite of tools. There are four components of Selenium – Selenium IDE, RC, WebDriver, and Grid. Last two being the most famous one.  Different components of Selenium provides different features – multiple browsers support, parallel test capabilities, execution on multiple machines and much more.

2) How does Selenium communicate with the Web browsers?

To communicate between server and client (browser), selenium web driver **uses JSON**. JSON Wire Protocol is a REST API that transfers the information between HTTP servers. Each Browser Driver has its own HTTP server.

3.What are the locators available to find an element using Selenium?

* By CSS ID: *find\_element\_by\_id*
* By CSS class name: *find\_element\_by\_class\_name*
* By name attribute: *find\_element\_by\_name*
* By DOM structure or xpath: *find\_element\_by\_xpath*
* By link text: *find\_element\_by\_link\_text*
* By partial link text: *find\_element\_by\_partial\_link\_text*
* By HTML tag name: *find\_element\_by\_tag\_name*

4.Why ID is preferable than X-Path?

This is because : **ID is considered as unique key so there cannot be more than 1 elements for same ID** while Xpath is created using relative path/position of elements, so there can be cases when we can get 2 or more elements for same Xpath.

5.How to select value in dropdown?

we will learn to get the selected values in the dropdown list in Javascript. We can get the values using 2 methods:

* By using the value property
* By using selectedIndex property with the option property

6) What is the difference between Absolute Path and Relative Path?

In simple words, an absolute path refers to the same location in a file system relative to the root directory, whereas a relative path points to a specific location in a file system relative to the current directory you are working on.

8. Difference between System.setProperty and WebDriverManager

10. How to get an attribute value using Selenium WebDriver?

To get the attribute value using selenium webdriver, we can use '**element.getAttribute(attributeName)'**. If we try to get the attribute value that doesn't exists for the tag, it will return null value.