1. Data types
2. Operators
3. Condition
4. Looping
5. Return
6. Argument(parameter)
7. Array concept
8. String method ,buffer , build -----
9. Constructor 4 types
10. Oops concept, interface , enc
11. Collection list , map , set
12. Exception handling.

## ****Data Types in Java ?****

Data types in Java define the kind of data a variable can hold.

Data types categorize data, defining the kind of values a variable can hold and the operations that can be performed on them. Data type can be classified into 2 Types

* Primitive data types - such as byte, short, int, long, float, double, boolean and char
* Non-primitive data types - such as [String](https://www.w3schools.com/java/java_strings.asp), [Arrays](https://www.w3schools.com/java/java_arrays.asp) and [Classes](https://www.w3schools.com/java/java_classes.asp)

Java Operators

Operators are used to perform operations on variables and manipulate the values.n They are categorized into several types based on the kind of operation they perform:

1. Arithmetic Operators
2. Unary Operators
3. Assignment Operator
4. Relational Operators
5. Logical Operators
6. Ternary Operator
7. Bitwise Operators
8. Shift Operators
9. instance of operator

Select tag - we can use the select class

Looping is a feature that facilitates the execution of a set of instructions repeatedly until a certain condition holds false. Java provides three types of loops namely the for loop, the while loop, and the do-while loop. Loops are also known as ****Iterating statements**** or ****Looping constructs**** in Java.

For loop is an ****entry-controlled**** loop as we check the condition first and then evaluate the body of the loop.

When we know the exact number of times the loop is going to run, we use [for loop](https://www.scaler.com/topics/for-loop-in-java/" \o "" \t "https://www.scaler.com/topics/java/loops-in-java/_blank).

While loop is much like ****repeating if statement****.

The [while loop](https://www.scaler.com/topics/while-loop-in-java/" \o "" \t "https://www.scaler.com/topics/java/loops-in-java/_blank) is used when the number of iterations is

not known but the terminating condition is known. Loop is executed until the given condition evaluates to false. while loop is also an ****entry-controlled**** loop as the condition is checked before entering the loop. The test condition is checked first and then the control goes inside the loop.

The do-while loop is like the while loop except that the condition is checked after evaluation of the body of the loop. Thus, the do-while loop is an example of an ****exit-controlled loop****.

****Need for**do-While**Loop****: The instructions inside for and while loops are not evaluated if the condition is false. In some cases, it is wanted that the loop body executes at least once irrespective of the initial state of test expression. This is where the do-while loop is used.

*A return statement in Java is used to exit a method and optionally send a value back to the caller. It can return a specific value or simply exit a void method without returning anything.*

In Java, the return statement is used to exit a method and optionally return a value to the caller. It is an essential part of methods, helping in providing the method's result back to where it was invoked.

Parameters are variables defined in the method declaration after the method name, inside the parentheses. This includes primitive types such as **int, float, boolean**, etc, and **non-primitive** or **object**types such as an **array, String**, etc. You can pass values(Argument) to the method parameters, at the method call. The method call has the same number of arguments and is in the same order, as the parameters.

Name and gaurdian filed accept numeric and special chracter

Phone field accept alphabet and special character

Allergies accept special character

National Identification Number and alternate accept special char and alphabet

Appointment date we cant change time

Patient field is required

@Test (priority=-1) , 0 , 1 ,2….

Enabled - default value true

@Test (enabled=fasle)

@Test (Description=” … ”)

@Test (dependsOnMethods = “….”)

**Dependency vs priority = dependency wins**

1. Test ng framework - main methood or entry level testng.xml
2. Testng running suit

Assert

Hard assert

To chech the experted and actuql result are equal stats the execution or else skip

Soft assert

To chech the experted and actuql result are equal or not equal it will run the functionalatiy and finaly through the exception

Test ng setup :

1. create the maven project

Go to the eclips click the file menu and choose t6he maven project

1st check box create check box

And defult or new foldre click next in nextwindow enter the group id and artifact id and artifact id reflect as project name

Add the dependency

Go to the maven project and click the pom.xml(project object module)

Testng dependency

1.Selenium java

2.Selenium web driver manager

3.TestNG

4.Junit

How to collect the dependency

Go to the google and serch the maven reposotry in that serch the dependency and enter the dependency name and choose that and n numder of version click the stable version and collect the dependency and paste on the pom.xml

Inbettween the version--- /---- project

3 install nthe test ng software in eclips and click the healp menu choose the eclips market place in find serch the test ng and click

Response code for get 200 and response message (OK)

In **Query Params we provide key and value**

Response code for post 201 and response message (CREATED)

SapID or Employe ID also generated automatically

Under Body

{

 "name" : "mohan AR",

 "job" : "developer"

}

Response code for put 200 and response message ( OK )

Job role changed

Difference between put and patch

Put means entire field change example : name exist but we want to add the lastname means we use put