



STEPPING STONE
SCHOOL (HIGH)

CLASS : IX

Subject: Computer Application

Date: 2/06/20

Topic: Conditional construct in java , Loop

Time Limit: 1 hour

Worksheet No. :5

[Minutely go through all the topics given below.]

Data types in java :

Variables are nothing but reserved memory locations to store values. This means that when you create a variable you reserve some space in the memory.

Based on the data type of a variable, the operating system allocates memory and decides what can be stored in the reserved memory. Therefore, by assigning different data types to variables, you can store integers, decimals, or characters in these variables.

Data types specify the different sizes and values that can be stored in the variable. There are two types of data types in Java:

1. Primitive data types.
2. Non-primitive data types.

Primitive data types.

There are eight primitive data types supported by Java. Primitive data types are predefined by the language and named by a keyword. Let us now look into the eight primitive data types in detail.

byte

Byte data type is an 8-bit integer

Minimum value is -128

Maximum value is 127

Default value is 0

Example: byte a = 100, byte b = -50

short

Short data type is a 16-bit integer

Minimum value is -32,768

Maximum value is 32,767

Default value is 0.

Example: short s = 10000, short r = -20000

int

int data type is a 32-bit integer.

Minimum value is - 2,147,483,648

Maximum value is 2,147,483,647

The default value is 0

Example: int a = 100000, int b = -200000

long

Long data type is a 64-bit integer

This type is used when a wider range than int is needed

Default value is 0L

Example: long a = 100000L, long b = -200000L

float

Float data type is a single-precision 32-bit floating point

Default value is 0.0f

Example: float f1 = 234.5f

double

double data type is a double-precision 64-bit floating point

Double data type should never be used for precise values such as currency

Default value is 0.0d

Example: double d1 = 123.4

boolean

boolean data type represents one bit of information

There are only two possible values: true and false

Default value is false

Example: boolean one = true

char

char data type is a single 16-bit Unicode character

Char data type is used to store any character

Example: char chr = 'A'

Non primitive Data type :

The non-primitive data types in Java are objects and arrays. These non-primitive types are often called "reference types" because they are handled "by reference" in other words, the address of the object or array is stored in a variable,

- Class objects and various type of array variables come under reference data type.
- Default value of any reference variable is null.

Programs in java :

Program 1.

Input a number and print the table of the number up to 10 multiples.

```
class display
{
    public static void main(int n )
    {
        int i, x=0;
        for(i=1 ;i <= 10; i ++)
        {
            x = n * i;
            System.out.println(x);
        }
    }
}
```

Program 2:

Write a program to print the given output.

1 3 6 10 15 21 28 36 45 55

```
class display
{
    public static void main( )
    {
        int i, s=0;

        for(i=1 ;i <= 10; i++)
        {
            s=s+i;

            System.out.println(s);
        }
    }
}
```

Program 3:

The given series is known as Fibonacci series.

0 1 1 2 3 5 8 13 21 34

In the series every third number is sum of previous two numbers.

```
class Fibo
{
    public static void main( )
    {
        int i , a=0,b=1, c=0  ;
        for(i=1;i<=10;i=i+1)
        {
            System.out.println(a);
            c=a+b;
            a=b;
            b=c;
        }
    }
}
```

