Day9

M T W T F S S
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Variable Initializing Statements:

Assinging values to the variable is known as variable initializing statements / initalization.

Syntax: ~~data-type~~ variableName = value;

OR

variableName = value;

Eg:

```
class Variable1
{
    Public static void main (String args[])
    {
        //variable ~~dat~~ declaration
        String name;
        byte age;
        char ~~grade~~;
        float salary;
        long phno;

        //variable initialization.
        name = "Ujjwal";
        grade = 'z';
        Salary = 5000.0f;
        phno = 1234567890;
        age = 22;

        System.out.println(name+"\n"+grade+"\n"+
            Salary+"\n"+phno+"\n"+age);
    }
}
```

variable Declare & initialization Statement:

Declaring variable & Storing value Simultaneously.

Syntax:

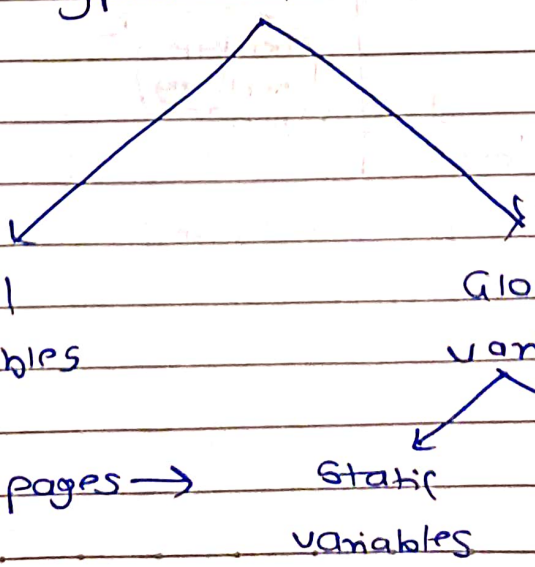
```
data_type variableName = value;
```

Eg:→

```
class Variable2
{
    public static void main (String args[])
    {
        String name = "ujjwal";
        double Salary = 5000.0;
        byte age=22;
        long phno= 9876543210;
        char grade='2';

        System.out.print(name+"\n"+salary+"\n"+
            age+"\n"+phno+"\n"+grade);
    }
}
```

Types of variables:→



theory after two pages →

variables of two types:

(I) Local variables
(II) Global variables.

(II) Global variables:

The variables which are declared in the class block is known as a global variables.

There are of two types:

(i) Static variable
(ii) Non-static variable.

~~(i) Local variable:~~

(I) Local variables:

If variable is declared in method block or any other block other than class block is called as Local variables.

Characteristics of Local variables.

(1) A variable declared inside block remains local to that block & cannot be accessed outside the block.

eg:

```
class Local
{
    public static void main (String args[])
    {
        {
            int a;
            System.out.print(a); //10
        }
        System.out.print(a); // compile Time Error
    }
}
```

(II) We cannot have more than one Local variables of same name within the same block else we get compile time error.

Eg:

```
class Local1
{
    psvm(String args[])
    {
        {
            int a = 10;
            String a = "Hello"; // compile Time Error
        }   }
}
```

(III) We can have more than one Local variables of same name in ~~two~~ different blocks.

Eg:

```
class Local1
{
    PSVM(String args[])
    {
        {
            int a=10;
            System.out.print(a); //10
        }
        {
            String a = "Hello!";
            System.out.print(a); //Hello
        }
    }
}
```

(IV) We cannot use Local variable without initialization

Eg: because Local variables are not assigned with ~~class Local~~ default values.

(Global variables Assigned with Default values)

Eg:

```
class Local2
{
    PSVM( String args[])
    {
        boolean b;
        System.out.print(b); // Compile Time Error
    }
}
```

Operators:

Operators are the Symbols which are used to perform certain operations on the given values known as operands.

Operators are classified into two types:

~~(I) Unary~~

(I) Based on type of operation it can perform

(II) Based on Number of operands needed to perform certain operation.

- Based on No. of operands

  (I) Unary operators (1 operand)
  (II) Binary operators (2 operand)
  (III) Ternary operators (3 operand)

- Based on Type of operations:

  (I) Arithmetic operator
  (II) Assignment operator
  (III) Relational operators
  (IV) conditional operators
  (V) increment & decrement operator
  (VI) Logical operators
  (VII) compound Assignment operator

(16) Bitwise operators
(X) Misrellaneous operator.