**Constants and variables**

Class -> name – camelcase -first will be capital – class Demo, class BankAccout

Method -> name – camelcase – fisrt will be small – void inputName(), String getData()

Variable -> datatype +name (naming convaction) + value (constant, variable or expression)

**Variable**

datatype +name (naming convaction) + value (constant, variable or expression)

int i=10; // constant

int i2=I; // variable

long l=i+i2;//expression

byte b= 200+100;// 200+I;

**Naming convention**

Alphabet

Digit

Symbol (-, $)

Cannot start with digit.

Q. Ca$h

19abc

\_abc

cA$h

CA$H

$abc

Variable: -

Types of variables

1. Instance variable
2. Local variable
3. Static variable

Instance variable

* Related to class
* Depended on object

Local variable

* Related block
* Scope of block

Static variable

* Related class
* When class is loaded at that time it is created.

Example 1: -

public class Demo2 {

    int a;//instance variable

    public static void main(String[] args) {

        // System.out.println(a);//error

        Demo2 d=new Demo2();

        System.out.println(d.a);//default value of instance variable is 0

    }

}

Example 2: -

public class Demo2 {

    int a=10;//instance variable

    public static void main(String[] args) {

        // System.out.println(a);//error

        Demo2 d=new Demo2();

        System.out.println(d.a);//default value of instance variable is 0

    }

}

Example 3: -

public class Demo2 {

    int a;//instance variable

    public static void main(String[] args) {

        // System.out.println(a);//error

        Demo2 d,d1,d2=new Demo2();

        System.out.println(d.a);//default value of instance variable is 0

        System.out.println(d1.a);

        System.out.println(d2.a);

    }

}

Example 4: -

public class Demo2 {

    static int a;

    public static void main(String[] args) {

        System.out.println(a);//by default value of static variable is 0

    }

}

Example 4: -

public class Demo2 {

    int a=10;//instance variable

    static int s;//static variable

    public static void main(String[] args) {

        int a=20;//Local variable

        Demo2 d=new Demo2();

        System.out.println(a);

        System.out.println(d.a);

    }

}

Example 5: -

public class Demo2 {

    int a=10;//instance variable

    static int s;//static variable

    public static void main(String[] args) {

        Demo2 d=new Demo2();

        System.out.println(d.a);

        d.alpha();

    }

    void alpha()

    {

        int a=50;//local variable

        System.out.println(a);

        System.out.println(this.a);

    }

}

Example 6: -

public class Demo2 {

    public static void main(String[] args) {

        int a=20,b=30,c=20,i=-2147483648;//i=2147483647;

        System.out.println(a);

        System.out.println(b);

        System.out.println(c);

        System.out.println(i);

    }

}

**Scope of variable**

Lifetime

Instance 🡪 object memory

Static 🡪 until class is in process

Local 🡪block (Don’t Depend on JVM)