```
// Java Program to show Static keyword usage

/*Program consist concept of
    1)  Instance Variable
    2)  Class Variable
    3)  static constructor (not allowed)
    4)  static method
    5)  static variable
    6)  Use of "super" and "this" keyword in child class within static method (not allowed)
    7)  Use of "super" and "this" keyword in child class with normal/regular method (allowed)
    8)  static method can only call other static variable and method
    9)  Accessing static variable and method via class object
    10) Accessing static variable and method via class name (without object)

*/

//Reference for concept clarity : https://www.geeksforgeeks.org/static-keyword-java/

class A
{
    int a=150,b;            //Instance Variable

    static int c=100;       // Class Variable


    /*static A()        //static constructor not allowed
    {
        System.out.println("This is the example of Static Constructor ");
    }*/

    static void input()
    {
        System.out.println("This is the example of Static Method of class A ");
    }
}
class B extends A
{
    int a=100;

    static void disp()
    {
        //super.input();    //can't use 'super' and 'this' keyword here because this method is
        static method/class method

        //System.out.println("Value of a = " +super.a);  //prohibited or illegal reason just
        above


        //----------------------


        System.out.println("This is the example of Static Method of class B");

        System.out.println("Value of static variable 'c' of class A = " +c);        //static
        method can call only static variable of parent and child class

        System.out.println("calling Static Method of class A via Static Method of class B ");

        input();    //static method can call only static method of parent and child class
    }

    void output()
    {

        System.out.println("This is the example of non-Static Method of class B");
```

```
        super.input();

        System.out.println("Value of a of class A : " +super.a);
        System.out.println("Value of a = " +this.a);
        System.out.println("Value of c of class A : " +super.c);
    }
}
class Static_Main
{
    public static void main(String args[])
    {
        B obj=new B();
        obj.disp();
        obj.input();
        obj.output();

        A obj1=new A();
        obj1.input();       // we can also call static method with object of class.

        //A.c;  //need print statement to print like below

        System.out.println("Value of C = " +A.c);   // calling static variable(Class Variable )
        of class A without object i.e. via "class name dot variable name".


        A.input();          // calling static method(Class method) of class A without object
        i.e. via "class name dot method name"

    }
}
```

Output

```
C:\Users\Dhruv\Desktop\Java>java Static_Main
This is the example of Static Method of class B
Value of static variable 'c' of class A = 100
calling Static Method of class A via Static Method of class B
This is the example of Static Method of class A
This is the example of Static Method of class A
This is the example of non-Static Method of class B
This is the example of Static Method of class A
Value of a of class A : 150
Value of a = 100
Value of c of class A : 100
This is the example of Static Method of class A
Value of C = 100
This is the example of Static Method of class A
```