```java
package com.pack1 ;

public class ClassA
{
    public static void main(String[] args)
    {
        int x = 20;
        System.out.println(x);
    }
    static
    {
        int x = 10;
        System.out.print(x + " ");
    }
}
```

```
10 20
```

```java
package com.pack1;

public class ClassB
{
    int x=10;      // instance vaiable
    public static void main(String[] args)
    {
        int x=20;  // local variable
        System.out.println(x);
    }
    static
    {              // local variable
        int x=30;
        System.out.println(x + "");
    }
}
```

```
10 20
```

if the name of the instance variable and local varible are same , the first priority goes to local variable

```java
package com.pack1;

public class ClassB
{
    int x=10;
    public static void main(String[] args)
    {
        int x=20;
        System.out.println(x);
    }
    static
    {
        int x=30;
        System.out.println(x + " "+new ClassB().x);

    }
}
```

```
30 10
20
```

```java
package com.pack1;

public class ClassB
{
    int x=10; // instance variable
    public static void main(String[] args)
    {
        System.out.println(ClassB.x);
    }
    static
    {
        int x=30;
        System.out.println(x + "");
    }
}
```

error because instance varible should not acces throug class name

```java
package com.pack1;

public class ClassB
{
    int x=10;
    public static void main(String[] args)
    {
        System.out.println(new ClassB().x);
    }
    static
    {
        int x=30;
        System.out.println(x + "");
    }
}
```

```java
package com.pack1;

public class ClassB
{
    static int x=10;
    public static void main(String[] args)
    {
        System.out.println(ClassB.x);
    }
    static
    {
        int x=30;
        System.out.println(x + "");
    }
}
```

```
30
10
```

```
1  package com.pack1 ;
2
3  public class ClassA
4  {
5      static int x = 10; // 20
6
7      public static void main(String[] args)
8      {
9              ClassA t1 = new ClassA ();
10             ClassA t2 = new ClassA ();
11
12             t1.x = 20;
13             System.out.print(x + " ");
14             System.out.println(t2.x);
15     }
16 }
```

```
20 20
```

```
3  public class ClassA
4  {
5      int x = 10; // 20
6
7      public static void main(String[] args)
8      {
9              ClassA t1 = new ClassA ();
10             ClassA t2 = new ClassA ();
11
12             t1.x = 20;
13             System.out.print(x + " ");
14             System.out.println(t2.x);
15     }
16 }
17
```

```
20 10
```

```java
package com.pack1 ;

public class ClassA
{
    int x = 10; // 20

    public static void main(String[] args)
    {
            ClassA t1 = new ClassA ();
            ClassA t2 = new ClassA ();

            t1.x = 20;
            System.out.print(t1.x + " ");
            System.out.println(t2.x);
    }
}
```

```java
public class ClassA
{
    static int x=10;
    static int y=20;

    static
    {
        System.out.println("---Test11 SB1 called---");
        System.out.println("X : "+x);
        System.out.println("y : "+y);
    }
    static void m1()
    {
        int x=100;
        System.out.println("static method called");
        System.out.println("X : "+x);
        System.out.println("y : "+y);
    }
    public static void main(String[] args)
    {
        m1();
    }
    static
    {
        System.out.println("---Test11 SB2 called---");
        System.out.println("X : "+x);
        System.out.println("y : "+y);
    }
}
```

```
    {
        System.out.println("---Test11 SB1 called---");
        System.out.println("X : "+x);
        System.out.println("y : "+y);
    }
    static void m1()
    {
        int x=100;
        System.out.println("static method called");
        System.out.println("X : "+x);
        System.out.println("y : "+y);
    }
    public static void main(String[] args)
    {
        m1();
    }
    static
    {
        System.out.println("---Test11 SB2 called---");
        System.out.println("X : "+x);
        System.out.println("y : "+y);
    }
}
```

```
---Test11 SB1 called---
X : 10
y : 20
---Test11 SB2 called---
X : 10
y : 20
static method called
X : 100
y : 20
```

```
package com.pack1 ;

public class ClassA
{
    static int x = m1(); // 120
    public static void main(String[] args)
    {
        System.out.println(ClassA.x);
    }
    static
    {
        System.out.println(x);
        ClassA.x = x+20;
    }
    static int m1()
    {
        ClassA.x = 50;
        return m2(); // 100
    }
    static int m2()
    {
        System.out.println(ClassA.x);
        return 100;
    }
}
```

```
50
100
120
```

```
public class  ClassA
{
        static int a=0;
        int b=0;

        ClassA()
        {
                a++;
                b++;
                System.out.println("Static variable===>"+a);
                System.out.println("Instance variable===>"+b);
                System.out.println("---------");
        }
        void display()
        {
                System.out.println("******Accessing static variable******");
                System.out.println(ClassA.a);
                System.out.println(a);
                System.out.println(new ClassA().a);
        }
        public static void main(String[] args)
        {
                new ClassA();
                new ClassA();
                new ClassA();
                System.out.println("####################################");
```

Pause

```
 6      int b=0;
 7
 8      ClassA()
 9      {
10          a++;
11          b++;
12          System.out.println("Static variable===>"+a);
13          System.out.println("Instance variable===>"+b);
14          System.out.println("---------");
15      }
16      void display()
17      {
18          System.out.println("******Accessing static variable******");
19          System.out.println(ClassA.a);
20          System.out.println(a);
21          System.out.println(new ClassA().a);
22      }
23      public static void main(String[] args)
24      {
25          new ClassA();
26          new ClassA();
27          new ClassA();
28          System.out.println("####################################");
29          new ClassA().display();
30      }
```

```
Static variable===>1
Instance variable===>1
---------
Static variable===>2
Instance variable===>1
---------
Static variable===>3
Instance variable===>1
---------
####################################
Static variable===>4
Instance variable===>1
---------
******Accessing static variable******
4
4
Static variable===>5
Instance variable===>1
---------
5
```

All the tasks belong to the same class

Assignment: Understanding the static Keyword in Java

Task 1: Static Variables

1. Create a class BankAccount with the following:
A static variable bankName (shared by all objects).
Instance variables: accountHolderName and balance.
A constructor to initialize accountHolderName and balance.
A method displayAccountInfo() to print account details.

Task 2: Static Methods

1. Add a static method setBankName(String name) in the BankAccount class to modify bankName.
2. Call setBankName() from main() and observe the changes across all objects.

Task 3: Static Block

1. Add a static block in the BankAccount class that initializes bankName with "Default Bank".
2. Observe when the static block is executed in comparison to object creation.
3. Modify the static block to print a message (bankName)

```
3  public class ClassA
4  {
5      int c;
6      static int e;
7      ClassA ()
8      {
9          System.out.println(++c);
10         System.out.println(++e);
11     }
12     public static void main(String []args)
13     {
14             int a=34;
15             int b=21;
16             new ClassA().c-=a++ + ++b ;
17             int d=--a + --b + new ClassA().c--;
18             e=a + +b + +new ClassA().c + d--;
19             int f=-a + b-- + -new ClassA().c - d++;
20             int sum= a+ b + new ClassA().c + d + e + f;
21             System.out.println("sum="+ sum);
22         }
23 }
```