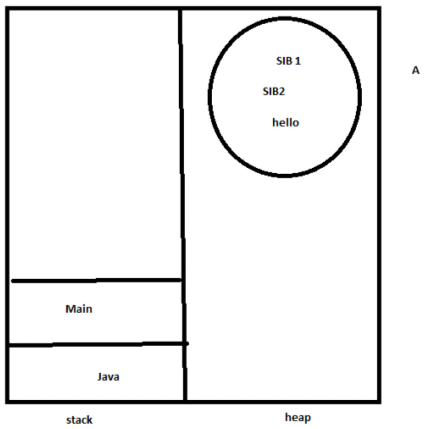
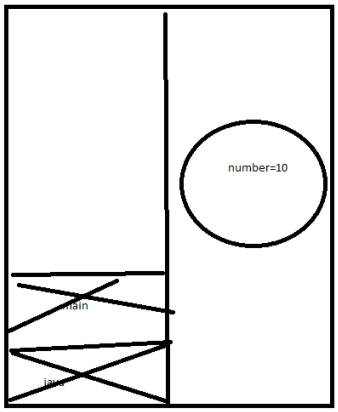


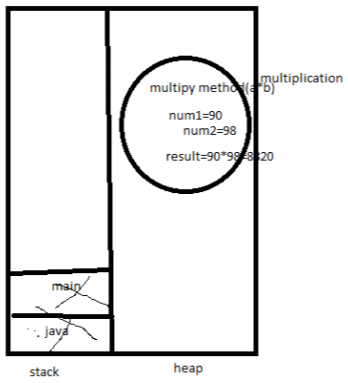
A

```
public class A {
  static {
    System.out.println("SIB1");
  }
  public static void main(String[] args) {
    System.out.println("hello");
  }
  static {
    System.out.println("SIB2");
  }
}
```

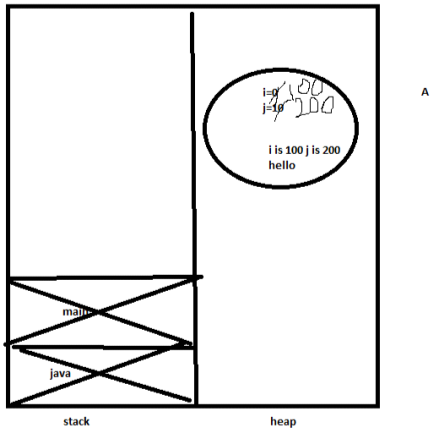


Local variab;e

```
public class LocalVariable {
   public static void main(String[] args) {
      int number = 10;
      // Declaring and initializing a local variable
      System.out.println("The number is: " + number);
      }

}
```

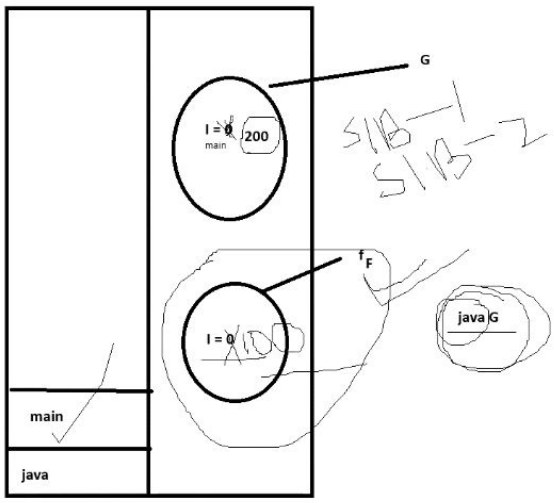



```
public class Multiplication {
  public static int multiply(int a, int b) {
    return a * b;
  }

  public static void main(String[] args) {
    int num1 = 90;
    int num2 = 98;
    int result = multiply(num1, num2);
    System.out.println("Output is: " +
result);
  }
}
```

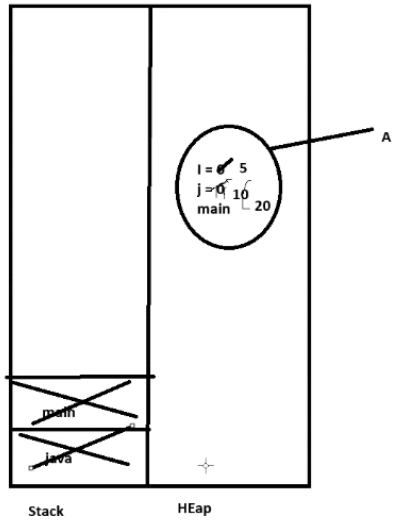


A

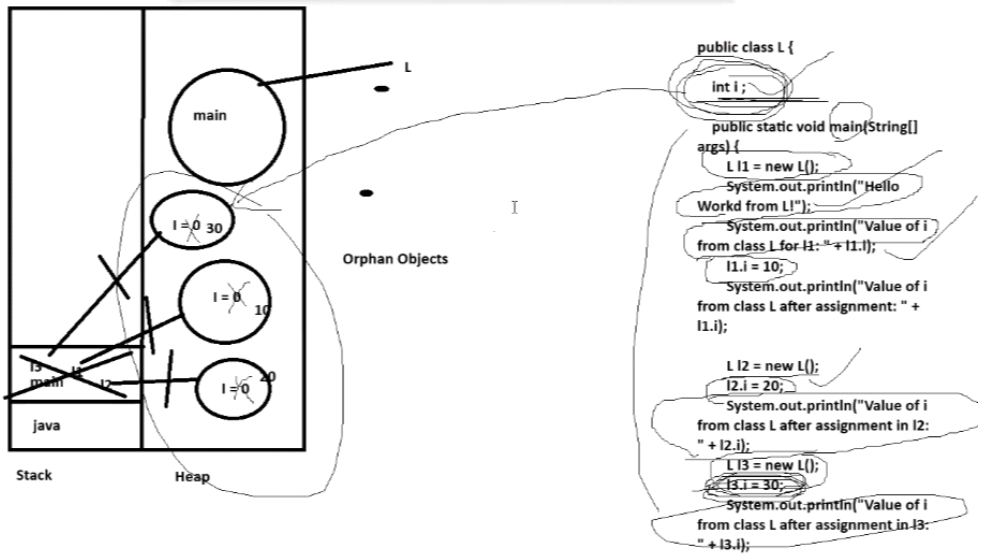
```
public class A {
  static int i;
  static int j = 10;

  static {
    A.i = 100;
    A.j = 200;
    System.out.println("i value is: " + i + ", j value is: " + j);
  }

  public static void main(String[] args) {
    System.out.println("hello");
  }
}
```



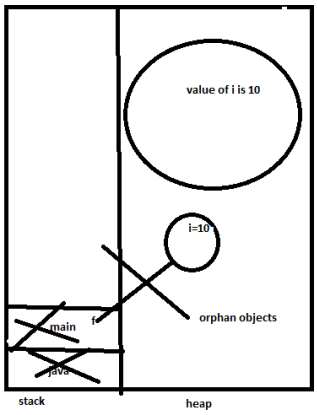

```
// Source code is decompiled from
a .class file using FernFlower
decompiler.
class F {

static int i =100;

}

class G {
  static int i = 200;
   public static void main(String[] var0) {
      System.out.println("Hello from G!");
      System
      .out.println("Value of i from class G:
" + i);
      System.out.println("Value of i from
class F: " + F.i);
   }

}
```




```
public class A {
   static int i;
   static int j = 10;

   static {
      i = 5;
      j = 20;
      System.out.println("Static block in A executed.
" + i + ", j: " + j);
   }

   public static void main(String[] args) {
      System.out.println("Hello from A!");

   }



}

 java A
```

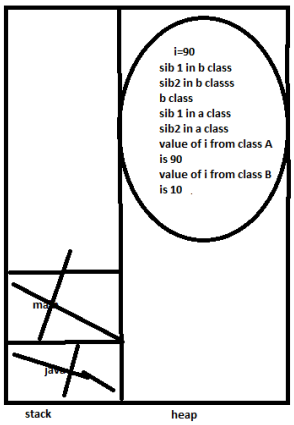



```
public class L {
    int i ;
    public static void main(String[]
args) {
        L l1 = new L();
        System.out.println("Hello
Workd from L!");
        System.out.println("Value of i
from class L for l1: "+ l1.i);
        l1.i = 10;
        System.out.println("Value of i
from class L after assignment: " +
l1.i);

        L l2 = new L();
        l2.i = 20;
        System.out.println("Value of i
from class L after assignment in l2:
" + l2.i);
        L l3 = new L();
        l3.i = 30;
        System.out.println("Value of i
from class L after assignment in l3:
" + l3.i);
```

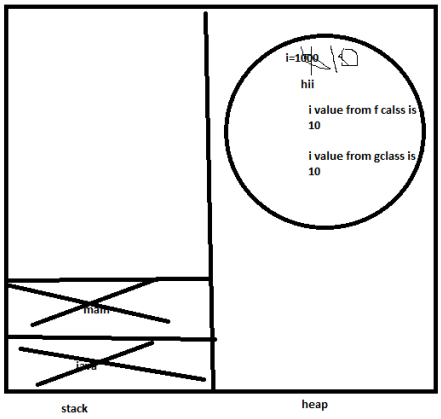


F

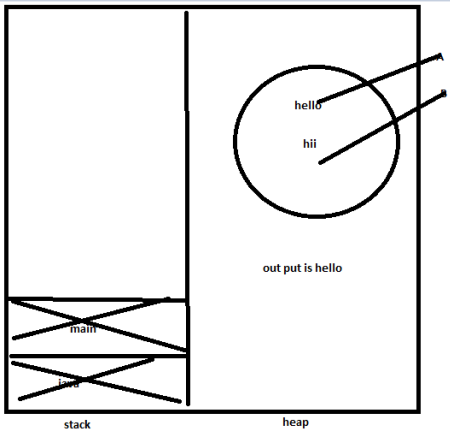
```
public class F {
  int i;
  F() {
     i = 10;
  }
  public  static void main(String[] args) {
     F f = new F();
     System.out.println("value of i is: " + f.i);
  }
}
```



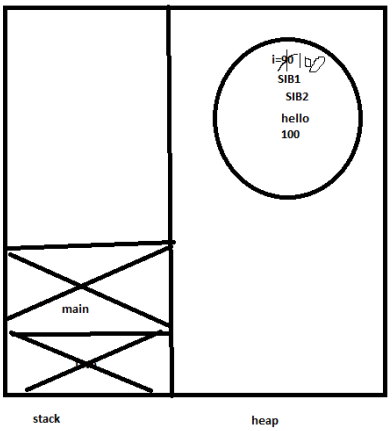

```
class A {
  static int i = 90;
  static {
    System.out.println("SIB1 in A class");
  }
  static {
    System.out.println("SIB2 in A class");
  }
}

class B {
  static int i = 10;
  static {
    System.out.println("SIB1 in B class");
  }
  public static void main(String[] args) {
    System.out.println("B class");
    System.out.println("value of i from class A is: " + A.i);
    System.out.println("value of i from B class is: " + i);
  }
  static {
    System.out.println("SIB2 in B class");
  }
}
```




```
class F {
  static int i = 1000;
}

class G {
  static int i = 10;
  public static void
main(String[] args) {
    System.out.println("hii");
    System.out.println("value
of i from class F is: " + F.i);
    System.out.println("value
of i from G class is: " + i);
  }
}
```

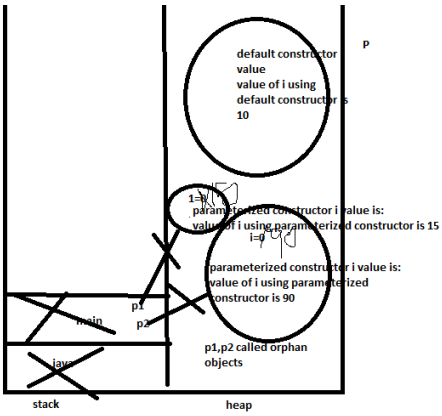



```
class A {
   public static void main(String[] args) {
      System.out.println("hello");
   }
}

class B {
   public static void main(String[] args) {
      System.out.println("hii");
   }
}
```

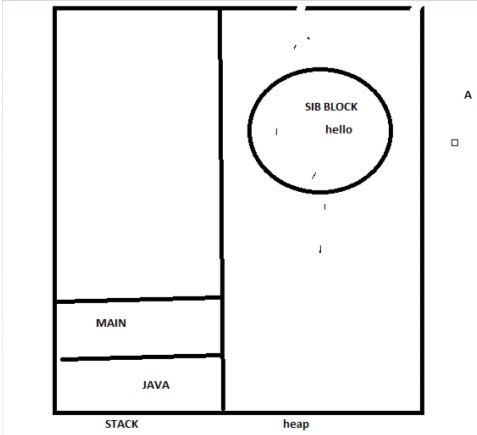


A

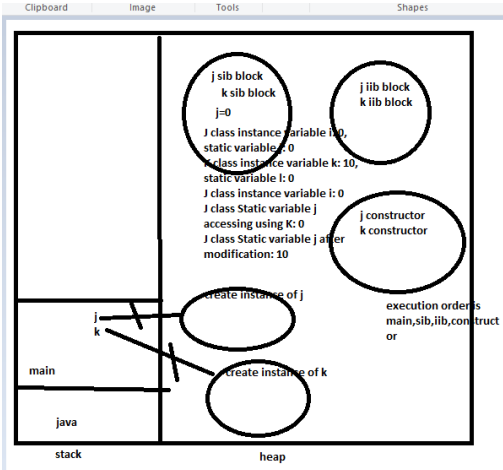
```
public class A {
   static int i = 90;

   static {
      i = 100;
      System.out.println("SIB1");
   }

   public static void main(String[] args) {
      System.out.println("hello");
      System.out.println("value of i is: " + i);
   }

   static {
      System.out.println("SIB2");
   }
}
```



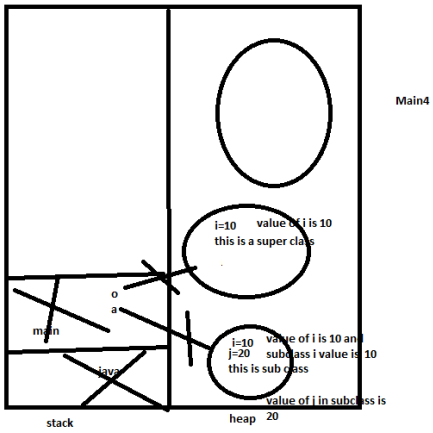

```
public class P {
  int i;
  P() {
    System.out.println("default constructor value");
    i = 10;
  }
  P(int i) {
    System.out.println("parameterized constructor i value is:");
    this.i = i;
  }
  public static void main(String[] args) {
    P p = new P();
    System.out.println("value of i using default constructor is " + p.i);
    P p1 = new P(15);
    System.out.println("value of i using parameterized constructor is " +
p1.i);
    P p2 = new P(90);
    System.out.println("value of i using parameterized constructor is " +
p2.i);
  }
}
```



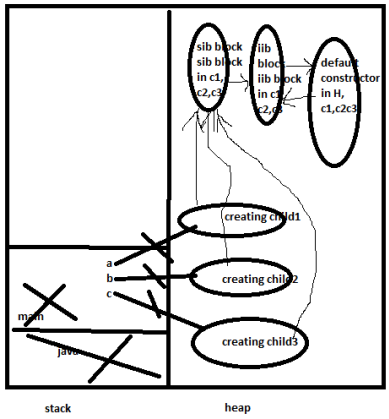

```
public class A {
  static {
    System.out.println("SIB block");
  }
  public static void main(String[] args) {
    System.out.println("hello");
  }
}
```




```
class J {
  int i;
  static int j;
  static {System.out.println("J SIB BLOCK");}
  J() {System.out.println("J constructor");}
  {System.out.println("J IIB -BLOCK"); }}
class K extends J {
  int k;
  static int l;
  K() {this(10); System.out.println("K constructor");}
  K(int k) { this.k = k;System.out.println("K's constructor with parameter: " + k);}
  static {System.out.println("K SIB-BLOCK");}
  {System.out.println("K IIB-BLOCK");}}
class Main5 {
  public static void main(String[] args) {
    System.out.println("Creating instance of J:");
    J j = new J();
    System.out.println("J class instance variable i: " + j.i + ", static variable j: " + J.j);
    System.out.println("\nCreating instance of K:");
    K k = new K();
    System.out.println("K class instance variable k: " + k.k + ", static variable l: " + K.l);
    System.out.println("J class instance variable i: " + k.i);
    System.out.println("J class Static variable j accessing using K: " + K.j);
    K.j = 10;
    System.out.println("J class Static variable j after modification: " + J.j);
  }
}
```



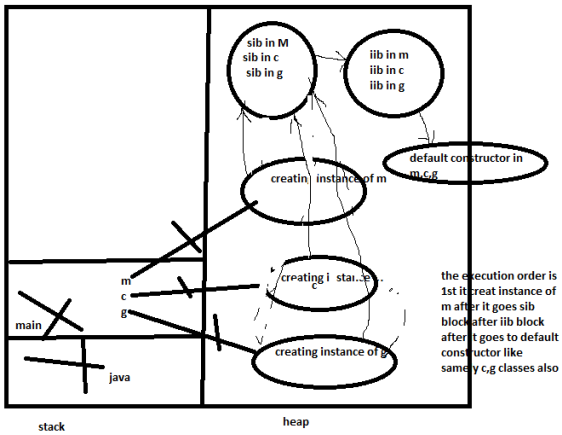

```
// Method Overriding
class O {
  int i = 10;
  void show() {
    System.out.println("this is in super class");
  }
}

class A extends O {
  int j = 20;
  @Override
  void show() {
    System.out.println("this is a sub class");
  }
}

class Main4 {
  public static void main(String[] args) {
    O o = new O();
    A a = new A();
    System.out.println("the value of i is " + o.i);
    System.out.println("the value of i in subclass is " + a.i);
    System.out.println("the value of j in sub class is " + a.j);
  }
}
```



main3

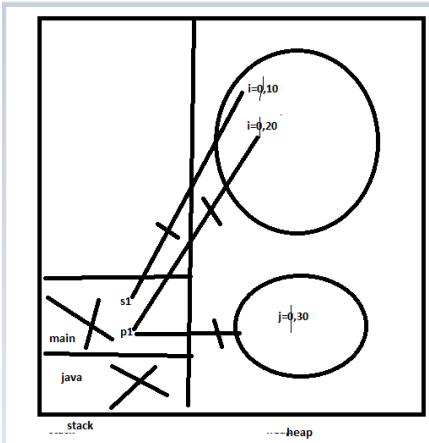
exectution order is
1main
2static block in parent
if it is child 1
otherwise this will not
work(2nd)
3static block in child
4iib block in child
5default constructor in
child

```
class H {
  H() {System.out.println("Default constructor in class H");}
  { System.out.println("IIB block in H"); }
  static {System.out.println("SIB block in H");}}
class C1 extends H {
  C1() { System.out.println("Default constructor in class C1"); }
  {System.out.println("IIB block in C1");}
  static {System.out.println("SIB block in C1");}}
class C2 extends H {
  C2() {System.out.println("Default constructor in class C2");}
  { System.out.println("IIB block in C2");
  }
  static {System.out.println("SIB block in C2") }}
class C3 extends H {
  C3() { System.out.println("Default constructor in class C3");}
  { System.out.println("IIB block in C3"); }
  static { System.out.println("SIB block in C3");}}
public class Main3 {
  public static void main(String[] args) {
    System.out.println("Creating instance of child1:");
    C1 a = new C1();
    System.out.println("\nCreating instance of child2:");
    C2 b = new C2();
    System.out.println("\nCreating instance of child3:");
    C3 c = new C3();
  }
}
```

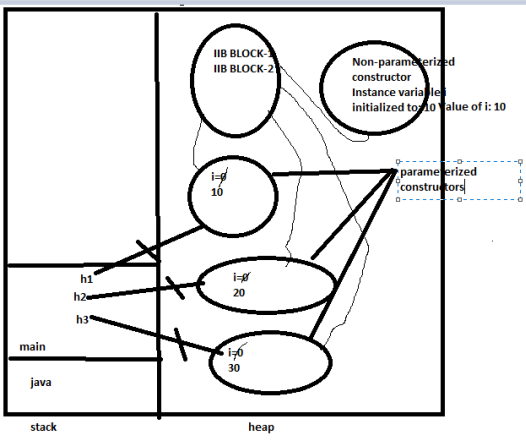


the execution order is
1st it creat instance of
m after it goes sib
block after iib block
after it goes to default
constructor like
same by c,g classes also

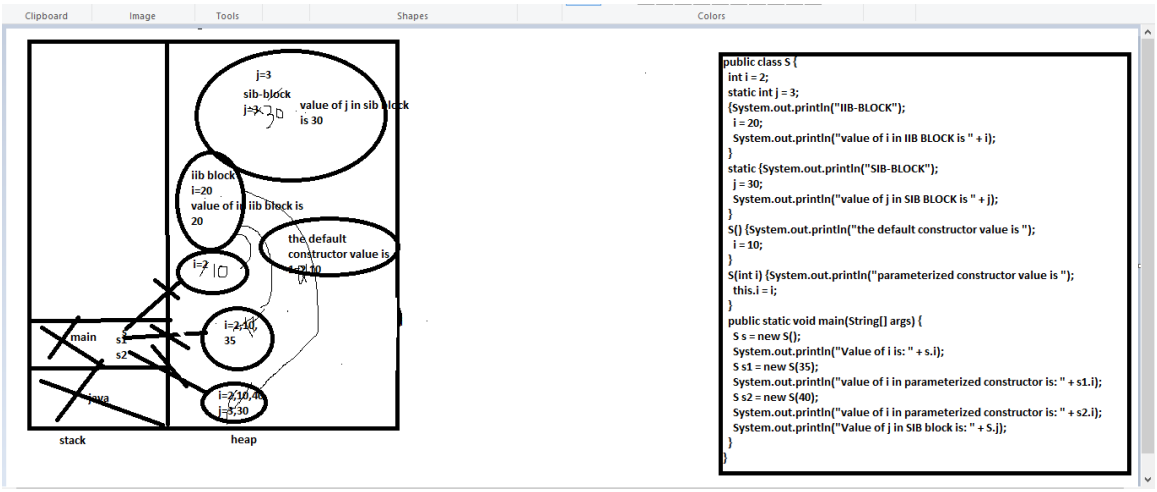
```
class M {
  M() {System.out.println("Default constructor in class M"); }
  { System.out.println("IIB block in M");}
  static {System.out.println("SIB block in M");}
}

class C extends M {
  C() {System.out.println("Default constructor in class C"); }
  {System.out.println("IIB block in C");}
  static { System.out.println("SIB block in C"); }
}
class G extends C {
  G() { System.out.println("Default constructor in class G"); }
  {System.out.println("IIB block in G"); }
  static {System.out.println("SIB block in G");}
}
public class Main1 {
  public static void main(String[] args) {
    System.out.println("Creating instance of M:");
    M m = new M();
    System.out.println("Creating instance of C:");
    C c = new C();
    System.out.println("Creating instance of G:");
    G g = new G();
  }
}
```



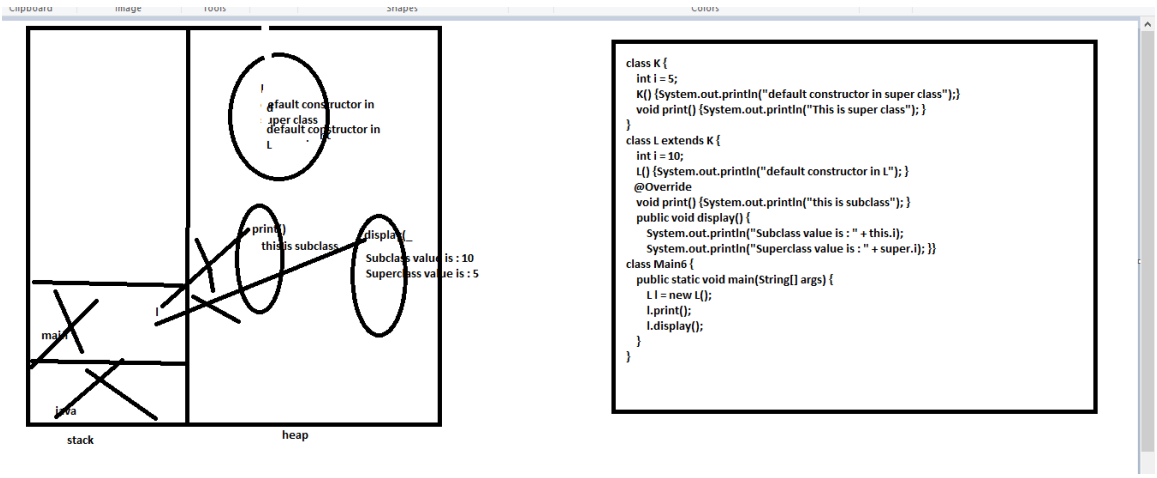

```
class S {
  int i;
}

class P extends S {
  int j;
}

public class Main {
  public static void main(String[] args) {
    S s1 = new S();
    P p1 = new P();
    s1.i = 10;
    p1.i = 20;
    p1.j = 30;

    System.out.println("Value of i in S: " + s1.i);
    System.out.println("Value of i in P: " + p1.i);
    System.out.println("Value of j in P: " + p1.j);
  }
}
```




```
public class H {
  int i;
  H() {
    System.out.println("Non-parameterized constructor ");
    i = 10;
    System.out.println("Instance variable i initialized to: " + i);
  }
  H(int i) {
    this.i = i;
    System.out.println("Parameterized constructor ");
    System.out.println("Instance variable i initialized to: " + this.i);
  }

  { System.out.println("IIB BLOCK-1");}

  {System.out.println("IIB BLOCK-2");
   System.out.println();}

  public static void main(String[] args) {
    H h1 = new H();
    System.out.println("Value of i: " + h1.i);
    H h2 = new H(20);
    System.out.println("Value of i: " + h2.i);
    H h3 = new H(30);
    System.out.println("Value of i: " + h3.i);
  }
}
```




```
public class S {
 int i = 2;
 static int j = 3;
 {System.out.println("IIB-BLOCK");
  i = 20;
  System.out.println("value of i in IIB BLOCK is " + i);
 }
 static {System.out.println("SIB-BLOCK");
  j = 30;
  System.out.println("value of j in SIB BLOCK is " + j);
 }
 S() {System.out.println("the default constructor value is ");
  i = 10;
 }
 S(int i) {System.out.println("parameterized constructor value is ");
  this.i = i;
 }
 public static void main(String[] args) {
  S s = new S();
  System.out.println("Value of i is: " + s.i);
  S s1 = new S(35);
  System.out.println("value of i in parameterized constructor is: " + s1.i);
  S s2 = new S(40);
  System.out.println("value of i in parameterized constructor is: " + s2.i);
  System.out.println("Value of j in SIB block is: " + S.j);
 }
}
```




```
class K {
  int i = 5;
  K() {System.out.println("default constructor in super class");}
  void print() {System.out.println("This is super class"); }
}
class L extends K {
  int i = 10;
  L() {System.out.println("default constructor in L"); }
  @Override
  void print() {System.out.println("this is subclass"); }
  public void display() {
    System.out.println("Subclass value is : " + this.i);
    System.out.println("Superclass value is : " + super.i); }}
class Main6 {
  public static void main(String[] args) {
    L l = new L();
    l.print();
    l.display();
  }
}
```