

1. Uraditi ispis sljedećeg programa:

```
public class A1{
    private A1 a1;
    public A1(){ System.out.println("A1"); }

    public A1(A1 a1){
        System.out.println("A1(a1)");
        this.a1 = a1;
    }

    public static void main(String args[]){
        new A4();
    }

    void metoda(){ System.out.println("metoda A1"); }
}

class A2 extends A1{
    A1 a1;
    public A2(){
        this(new A1());
        System.out.println("A2");
    }

    public A2(A1 a1){
        this.a1 = a1;
        System.out.println("A2(a1)");
    }
}

class A3 extends A2 implements Serializable{
    public A3(){ System.out.println("A3"); }
}

class A4 extends A3{
    private A1 a = new A2();
    private A2 a2 = new A2(new A1(null));
    Serializable a3 = new A3();

    public A4(){
        super();
        System.out.println("A4");
        a.metoda();
    }
}
```

2. Uraditi ispis sljedećeg programa:

```
public class A {
    static {
        int a = 5;
        System.out.println(a);
    }
    static int a, b;
    public static void main(String args[]) {
        a--;
        metoda();
        System.out.println(a + b + ++a);
        System.out.println(++A.a);
        System.out.println(a);
    }
    public static void metoda() { b = a++ + ++a; }
}
```

3. Uraditi ispis sljedećeg programa:

```
public class B1{
    public void metoda1(){ System.out.println("B1 metoda 1"); }
    public void metoda2(){ System.out.println("B1 metoda 2"); }
    B1(){ System.out.println("B1"); }

    public static void main(String args[]){
        B1 b1 = new B1();
        B1 b2 = new B2(){
            public void metoda1(){ System.out.println("B2 metoda 1"); }
        };

        B1 b3 = new B2(){
            public void metoda1(){ System.out.println("B2 m12"); }
            public void metoda2(){ System.out.println("B2 m22"); }
        };
        B1 niz[] = {b1, b2, (B1)b3};
        for(B1 b : niz){
            b.metoda1();
            b.metoda2();
        }
    }
}

abstract class B2 extends B1 implements BI{
    public void metoda2(){ System.out.println("B2 metoda 2"); }
    public B2(){ System.out.println("B2"); }
}

interface BI{
    abstract void metoda1();
    void metoda2(); }
}
```

4. Uraditi ispis sljedećeg programa:

```
public class C{
    int i = 0;
    public static void main(String args[]){
        C c = new C();
    }

    C() {
        while(i < 2 ) {
            System.out.println(i);
            i++;
            continue;
        }
    }
}
```

5. Uraditi ispis sljedećeg programa:

```
class E {
    public static void main(String args[]){
        D d = new D();
        I1 i = new D();
        I2 i2 = d;
        i.metoda();
        d.metodaI3();
        i.metodaI3();
        i2.metoda();
    }
}

interface I1 extends I2, I3 { void metoda(); }
interface I2{ void metoda(); }
interface I3{ void metodaI3(); }

class D implements I1,I3 {
    public void metoda() { System.out.println("metoda"); }
    public void metodaI3(){ System.out.println("metoda I3"); }
}
```

6. Uraditi ispis sljedećeg programa:

```
public class F{
    static int x = 3;
    public static void main(String args[]) { new F(); }

    F(){ this(2); }

    F(int x){
        System.out.println(x);
    }
}
```

7. Uraditi ispis sljedećeg programa:

```
public class G1{
    int i;
    {
        System.out.println("blok");
        System.out.println(i = 1);
    }

    protected void test(){
        System.out.println(i);
        System.out.println("iz G1");
    }

    protected void metoda() throws Exception{
        System.out.println("G1 metoda");
        test();
    }

    public static void main(String args[]) throws Exception{
        G1 g1 = new G1(), g2 = new G3();
        g1.metoda();
        g2.metoda();
    }
}

abstract class G2 extends G1{

    abstract protected void metoda() throws Exception;

    protected void test(){
        System.out.println(i);
        System.out.println("iz G2");
    }
}

final class G3 extends G2{

    public void metoda() throws Exception {
        System.out.println("G3 metoda");
        i += 10.51f;
        test();
    }
}
```

8. Uraditi ispis sljedećeg programa (ili naći grešku):

```
public class L extends K{
    public static void main(String args[]){
        L l = new L();
        J j = new J();
        System.out.println(J.i);
        j = (K) l;
        System.out.println(j.metoda());
    }
};

class J {
    static int i;
    J() { ++i; }
    private int metoda() { return ++i; }
};

class K extends J {
    int i = 0;
    K() { i++; }
    int metoda() { return (i+3); }
};
```

9. Uraditi ispis sljedećeg programa:

```
public class M {
    int x = 0, y = 0;
    M() {}
    M(int a, int b) {
        x = a;
        y = b;
    }

    protected int zbir() { return x+y; }
    protected int razlika() { return x-y; }

    public static void main(String args[]) {
        M m = new M(1,2);
        N n = new N();
        System.out.println(m.razlika());
        System.out.println(n.razlika());
    }
}

class N extends M {
    N() {}
    N(int i, int j) { super(i,j); }
    public int zbir() { return y+x; }
    public int razlika() { return y-x; }
}
```

10. Uraditi ispis sljedećeg programa:

```
public class HelloWorldAnonymousClasses {
    interface HelloWorld {
        public void greet();
        public void greetSomeone(String someone);
    }

    public void sayHello() {
        class EnglishGreeting implements HelloWorld {
            String name = "world";
            public void greet() { greetSomeone("world"); }
            public void greetSomeone(String someone) {
                name = someone;
                System.out.println("Hello " + name);
            }
        }
    }

    HelloWorld englishGreeting = new EnglishGreeting();

    HelloWorld frenchGreeting = new HelloWorld() {
        String name = "tout le monde";
        public void greet() { greetSomeone("tout le monde"); }
        public void greetSomeone(String someone) {
            name = someone;
            System.out.println("Salut " + name);
            ispis();
        }
        public void ispis() { System.out.println("Dodao"); }
    };

    HelloWorld spanishGreeting = new HelloWorld() {
        String name = "mundo";
        public void greet() { greetSomeone("mundo"); }
        public void greetSomeone(String someone) {
            name = someone;
            System.out.println("Hola, " + name);
        }
    };
    englishGreeting.greet();
    frenchGreeting.greetSomeone("Fred");
    spanishGreeting.greet();
}

public static void main(String... args) {
    HelloWorldAnonymousClasses myApp =
        new HelloWorldAnonymousClasses();
    myApp.sayHello();
}
```

11. Napisati izlaz sljedećeg programa:

```
class A1 extends A2{
    public static void main(String args[]){
        A1 a1 = new A1();
        A2 a2 = new A2();
        a1.metoda();
    }
    public void metoda(){ super.metoda(); }
}

class A2 extends A3{
    public A2(){ System.out.println("A2()"); }
    public void metoda(){
        this.metoda();
        super.metoda();
        System.out.println(a++);
    }
}

class A3{
    double a;
    int b;
    float c;
    public A3(){
        System.out.println("A3()");
        a = c = b = 1;
    }
    public void metoda(){ System.out.println(a + b++); }
}
```

12. Uraditi ispis sljedećeg programa:

```
public abstract class B1{
    B1(){
        super();
        System.out.println("B1()");
    }

    public abstract void redefinisi(){}
    public static void main(String args[]){
        B3 b3 = new B3();
        b3.metoda();
        B2 b2 = b3;
        b2.metoda();
        B1 b1 = b2;
        b1.metoda();
    }

    private void metoda(){ System.out.println("B1 metoda"); }
}
```

```
abstract class B2 extends B1{
    B2(){ System.out.println("B2()"); }
    abstract protected void metoda();
    void metoda2(){ System.out.println("B2 metoda"); }
}

final class B3 extends B2{
    B3(){
        super();
        System.out.println("B3()");
    }
    public void metoda(){ System.out.println("B3 metoda"); }
}
```

13. Uraditi ispis sljedećeg programa(za slučaj kada C2 nasljeđuje C1 i slučaj kada C3 nasljeđuje C2 i kada nijedna od pomenutih klasa ne nasljeđuje navedenu):

```
public class C1{

    C1(){ System.out.println("C1()"); }
    public static void main(String args[]) throws IOException{
        C1 c1 = new C1();
        try{
            c1.metoda();
            System.out.println("main 1");
        }catch(CE2 e){
            System.out.println("main 2:"+e);
        }catch(CE1 e){
            System.out.println("main 3:"+e);
        }catch(Throwable e){
            System.out.println("main 4:"+e);
        } finally {
            System.out.println("Finally iz maina");
        }
        try(BufferedReader bf = new BufferedReader(new
        FileReader("proba.txt"));)
        {
            throw new IOException();
        }

    }
    void metoda() throws Throwable{
        C2 c2 = new C2();
        try{
            c2.metoda();
            System.out.println("C1 : metoda()");
        }finally{
            System.out.println("finally");
        }
    }
}
```



```
    }  
}  
  
class C2 /*extends C1*/ {  
    C2(){  
        System.out.println("C2()");  
    }  
    void metoda()throws CE1 {  
        C3 c3 = new C3();  
        System.out.println("C2 : metoda()");  
        c3.metoda();  
    }  
}  
class C3 /*extends C2*/{  
    C3(){  
        System.out.println("C3()");  
    }  
    protected void metoda()throws CE1{  
        System.out.println("C3 : metoda()");  
        throw new CE2("CCCCEEEE2");  
    }  
}  
class CE1 extends Throwable{  
    CE1(String s){  
        super(s);  
        System.out.println("CE1:"+s);  
    }  
}  
class CE2 extends CE1{  
    CE2(String s){  
        super(s);  
        System.out.println("ce2:"+s);  
    }  
}
```

14. Uraditi ispis sljedećeg programa:

```
public class D1 extends D3 implements DI{  
  
    public static void main(String args[]){  
        D3 niz[]={new D3(), new D2(), new D1()};  
        for(int i = 0; i < niz.length; i++){  
            niz[i].metoda();  
        }  
    }  
    public D1 metoda(){  
        System.out.println("D1: metoda()");  
        return (D1) super.metoda();  
    }  
}
```

```
class D2 extends D3{
    public D2 metoda(){
        System.out.println("D2: metoda()");
        return new D2();
    }
}

class D3{
    public D3 metoda(){
        System.out.println("D3: metoda()");
        return new D3();
    }
}

interface DI{ D3 metoda(); }
```

15. Nacrtati nit i ilustrovati kako ona radi.

```
public class E1{
    static public void main(String args[]){
        System.out.println("main 1");
        E3 e3 = new E3();
        E2 e2 = new E2(e3);
        e2.start();
        System.out.println("main 2");
    }
}

class E2 extends Thread{
    E3 e3;
    public E2(E3 e3){
        this.e3 = e3;
        System.out.println("E2");
    }
    public void run(){
        for(int i = 0; i < 6; i++){
            System.out.println("E2 run");
        }
    }
    public synchronized void start(){
        super.start();
        new Thread(e3).start();
    }
}

class E3 implements Runnable{
    public E3(){ System.out.println("E3"); }
    public void run(){
        for(int i = 0; i < 6; i++){
            System.out.println("E3 run");
        }
    }
}
```

16. Napisati izlaz sljedećeg programa:

```
public class A1{

    private A1 a1;

    public A1(){ System.out.println("A1"); }

    public A1(A1 a1){
        System.out.println("A1(a1)");
        this.a1=a1;
    }

    public static void main(String args[]){
        new A4();
    }

    void metoda(){ System.out.println("metoda A1"); }
}

class A2 extends A1{
    A1 a1;

    public A2(){
        this(new A1());
        System.out.println("A2");
    }

    public A2(A1 a1){
        this.a1=a1;
        System.out.println("A2(a1)"); }
}

class A3 extends A2 implements Serializable{
    public A3(){ System.out.println("A3"); }
}

class A4 extends A3{

    private A1 a = new A2();
    private A2 a2 = new A2(new A1(null));
    Serializable a3 = new A3();

    public A4(){
        super();
        System.out.println("A4");
        a.metoda();
    }
}
```

17. Napisati izlaz sljedećeg programa:

```
public class C1{
    public static void main(String args[]){
        C1 c1 = new C1();
        C2 c2 = new C2();
        try{
            System.out.println(c1.metoda(c1));
            System.out.println(c1.metoda(c2));
            System.out.println(c2.metoda(c1));
            System.out.println(c2.metoda(c2));
        }catch(CE1 e){
            System.out.println("exception 1");
        }finally{
            System.out.println("finally");
        }
    }

    Object metoda(C1 c) throws CE1{
        if(c instanceof C1){
            System.out.println("metoda");
        }else{
            throw new CE2();
        }
        return 1;
    }
}

class C2 extends C1{
    Object metoda (C1 c) throws CE1{
        if(errorCheck() && c instanceof C2){
            throw new CE2("error 2");
        }else if(c instanceof C2){
            throw new CE1();
        }else{
            return new String("abc");
        }
    }
    boolean errorCheck(){ return true; }
}

class CE1 extends Throwable{
    public CE1(){ System.out.println("ce1 - 1"); }
    public CE1(String s){
        super(s);
        System.out.println("ce1 - 2");
    }
}
```

```
class CE2 extends RuntimeException {
    public CE2(){
        System.out.println("ce2 - 1");
    }

    public CE2(String s){
        this();
        System.out.println("ce2 - 2");
    }
}
```

18. Nacrtati nit i ilustrovati kako ona radi.

```
public class E1 extends Thread{

    private String name;

    public E1(String name){
        this.name = name;
    }

    public void run(){
        Runnable r = new Runnable(){
            public void run(){
                for(int i = 0; i < 5; i++){
                    System.out.println(i);
                }
            }
        };

        new Thread(r).start();
        synchronized(this){
            for(int i = 0; i < 100; i++){
                System.out.println(i + " " + this.name);
            }
        }
    }

    public static void main(String args[]){
        E1 a = new E1("A");
        E1 b = new E1("B");
        a.start();
        b.start();
    }
}
```

19. Napisati izlaz sljedećeg programa:

```
public class D1 extends DI1.D2 implements DI1,DI2{
    public D1(){
        super();
        System.out.println("D1()");
    }

    public static void main(String args[]){
        DI2 di1 = new D1();
        DI2 di2 = new D2();
        DI1 di3 = new D1();
        D1 d1 = new D1();
        D2 d2 = new DI1.D2();
        System.out.println(((DI2)new D1()).metoda());
        System.out.println(((DI2)d2).metoda());
    }

    //public int metoda(){
    public void metoda(int i){
        System.out.println("D1 metoda");
        return 1;
    }
}

interface DI1{
    class D2 implements DI2{

        D2(){ System.out.println("D2()"); }
        public int metoda(){
            System.out.println("D2 metoda");
            return 0;
        }
    }
}

interface DI2{ int metoda(); }
```

Šta će se desiti kada odkomentarišemo public int metoda() i return 1, a zakomentarišemo public void metoda(int i)?

20. Napisati izlaz sljedećeg programa:

```
public class F1{

    static boolean b;
    static int counter = 0;

    public static void main(String args[]){

        try{
            label:
            while(counter == 0){
                if(!b){
                    System.out.println("C");
                    b = true;
                    main(new String[]{"D"});
                    System.out.println("E");
                }else{
                    counter++;
                    System.out.println("A");
                    System.out.println(args[0]);
                    main((String[])new Object("F"));
                    if(counter == 1){
                        continue label;
                        System.out.println("B");
                    }
                }
                System.out.println(F1.getF1());
            }

        }catch(Exception e){
            System.out.println("exception");
        }
    }

    public static F1 getF1(){
        System.out.println("1");
        return new F1();
    }

    {
        System.out.println("F1");
    }
}
```

Ukoliko postoji greska napisati gdje se nalazi, pa ispisati izlaz programa u slučaju da se zakomentariše linija sa greškom.

21. Napisati izlaz sljedećeg programa:

```
public class G1{
    public static void main(String args[]) throws Exception{
        G2 g2 = new G2();
        G3 g3 = new G3("a");
        ObjectOutputStream cout = new ObjectOutputStream(new
        FileOutputStream("G1.out"));
        cout.writeObject(g2);
        cout.writeObject(g3);
        ObjectInputStream cin = new ObjectInputStream(new
        FileInputStream("G1.out"));
        G2 g22 = (G2)cin.readObject();
        System.out.println(g22.a);
        System.out.println(g22.b);
        G3 g33 = (G3)cin.readObject();
        System.out.println(g33.a);
        System.out.println(g33.b);
        cin.close();
    }
}
class G2 implements Externalizable{
    int a = 1;
    transient int b = 2;
    public G2(){ System.out.println("G2 konstruktor"); }
    public void writeExternal(ObjectOutput out)throws IOException{
        out.write(3);
        out.write(4);
        System.out.println("G2 writeExternal");
    }
    public void readExternal(ObjectInput in)throws
    IOException, ClassNotFoundException{
        System.out.println("G2 readExternal");
    }
}
class G3 implements Serializable{
    int a = 5;
    transient int b = 6;
    public G3(String s){ System.out.println("G3 konstruktor"); }
    private void writeObject(ObjectOutputStream out)throws
    IOException{
        System.out.println("G3 writeObject");
        out.write(a);
        out.write(b);
    }
    private void readObject(ObjectInputStream in)throws
    IOException, ClassNotFoundException{
        System.out.println("G3 readObject");
        a = in.read();
        b = in.read();
    } }
}
```



22. Napisati izlaz sljedećeg programa:

```
public class A {  
    public static void main(String[] args) {  
        String a = "newspaper";  
        a = a.substring(5,7);  
        System.out.println(a);  
        char b = a.charAt(1);  
        System.out.println(b);  
        a = a + b;  
        System.out.println(a);  
    }  
}
```

23. Napisati izlaz sljedećeg programa:

```
public class A{  
    public static void main(String[] args) {  
        String a = "newspaper";  
        a = a.substring(5,7);  
        System.out.println(a);  
        char b = a.charAt(1);  
        System.out.println(b);  
        a = a + b;  
        System.out.println(a);  
        C c = new C();  
        c.ispis();  
        c.metoda();  
    }  
}  
  
abstract class B extends A {  
    protected abstract void metoda();  
    protected String ispis(){ return "ispis"; }  
}  
  
class C extends B{  
    private void metoda(){ System.out.println("C"); }  
}
```

24. Uraditi ispis sljedećeg programa:

```
public class AnonimnaKlasa {  
    public static void main(String args[]){  
        int i = 1, j = 0;  
        switch(i){  
            case 2: j += 6;  
            case 4: j += 1;  
            default: j += 2;  
            case 0: j += 4;  
        }  
        System.out.println("j = " + j);  
    } }  
}
```

25. Uraditi ispis sljedećeg programa:

```
public class Animal {

    public void eat(){ System.out.println("Animal is eating"); }

    public void drink(){ System.out.println("Animal is drinking");}

    private void privateMethod() {
        System.out.println("Animal's private method");
    }

    public void commonMethod() { System.out.println("Common
method"); }

    public static void main(String[] args) {

        Animal a = new Cat();
        a.eat();
        a.drink();
        a.privateMethod();
        a.commonMethod();
        ((Cat)a).meow();

        Cat c = (Cat)a;
        c.eat();
        c.drink();
        ((Animal)c).privateMethod();
        c.commonMethod();
        c.meow();

        Animal animal = new Animal();
        Cat catty = (Cat) animal;
    }
}

class Cat extends Animal {

    public void eat() { System.out.println("Cat is eating"); }

    public void drink() { System.out.println("Cat is drinking"); }

    public void meow() { System.out.println("Cat is meowing"); }
}
```

26. Napisati izlaz sljedećeg programa:

```
public abstract class B1 {

    B1() {
        super();
        System.out.println("B1()");
    }

    public static void main(String[] args) {
        B3 b3 = new B3();
        b3.metoda();
        B2 b2 = new B2();
        b2 = b3;
        b2.metoda();
        B1 b1 = b2;
        b1.metoda();
        B2 test2 = new B2();
        test2.metoda();
    }

    void metoda() { System.out.println("B1 metoda..."); }
}

class B2 extends B1 {
    B2() { System.out.println("B2()"); }

    protected void metoda() { System.out.println("B2 metoda..."); }

    void metoda2() { System.out.println("B2 metoda..."); }
}

final class B3 extends B2 {

    B3() {
        super();
        System.out.println("B3()");
    }

    public void metoda() {
        System.out.println("B3 metoda...");
    }
}
```

27. Napisati izlaz sljedećeg programa:

```
class BaseClass {
    private void foo(){ System.out.println("In BaseClass.foo()"); }
    void bar(){ System.out.println("In BaseClass.bar()"); }

    public static void main(String[] args) {
        DerivedClass po = new DerivedClass();
        ((BaseClass)po).foo();
        ((BaseClass)po).bar();
    }
}

class DerivedClass extends BaseClass {
    void foo(){ System.out.println("In Derived.foo()"); }
    void bar(){ System.out.println("In Derived.bar()"); }
}
```

28. Napisati izlaz sljedećeg programa:

```
private class KlasaA {

    public static void main(String ... args){
        int a = 0;
        int b = 5;
        System.out.println(a++ + b);
    }
}
```

29. Napisati izlaz sljedećeg programa:

```
class Bonds {
    Bonds force() { return new Bonds(); }
}

public class Covalent extends Bonds {

    Covalent force() { return new Covalent(); }

    public static void main(String[] args) {
        new Covalent().go(new Covalent());
    }

    void go(Coalvent c) {
        go2(new Bonds().force(), c.force());
    }

    void go2(Bonds b, Covalent c) {
        Covalent c2 =(Coalvent)b;
        Bonds b2 = (Bonds)c;
    }
}
```

30. Napisati izlaz sljedećeg programa:

```
public class Cycles {

    public static void rideCycle(CycleFactory factory) {
        Cycle c = factory.getCycle();
        c.ride();
    }

    public static void main(String [] args) {
        rideCycle(new UnicycleFactory());
        rideCycle(new BicycleFactory());
        rideCycle(new TricycleFactory());
    }
}

interface Cycle { void ride(); }

interface CycleFactory { Cycle getCycle(); }

class Unicycle implements Cycle {
    public void ride() {
        System.out.println("Ride Unicycle");
    }
}

class UnicycleFactory implements CycleFactory {
    public Cycle getCycle() {
        return new Unicycle();
    }
}

class Bicycle implements Cycle {
    public void ride() { System.out.println("Ride Bicycle"); }
}

class BicycleFactory implements CycleFactory {
    public Cycle getCycle() { return new Bicycle(); }
}

class Tricycle implements Cycle {
    Tricycle() { System.out.println("Tricycle()"); }
    public void ride() { System.out.println("Ride Tricycle"); }
}

class TricycleFactory implements CycleFactory {
    public Cycle getCycle() {
        return new Tricycle();
    }
}
```

31. Napisati izlaz sljedećeg programa:

```
class Equals {  
    public static void main(String [] args){  
        int x = 100;  
        double y = 100.1;  
        boolean b = (x = y);  
        System.out.println(b);  
    }  
}
```

32. Napisati izlaz sljedećeg programa:

```
class EqualsS{  
    public static void main(String [] args) {  
        int x = 97;  
        char y = 'a';  
        boolean b = (x == y);  
        System.out.println(b);  
    }  
}
```

33. Napisati izlaz sljedećeg programa:

```
public class Ex11 {  
    public static void main(String[] args) {  
        Test t = new Test();  
        t.f().say("hi");  
        ((Inner)t.f()).say("hello");  
    }  
}  
  
interface Ex11Interface {  
    void say(String s);  
}  
  
class Test {  
    private class Inner implements Ex11Interface {  
        public void say(String s) {  
            System.out.println(s);  
        }  
    }  
    Ex11Interface f() {  
        return new Inner();  
    }  
}
```

34. Napisati izlaz sljedećeg programa:

```
public class Exercise7 {
    private int x;
    private void metoda() {
        System.out.println("Exercise7.metoda()");
    }

    private void metoda2() {
        Exercise7Inner e7i = new Exercise7Inner();
        e7i.metodaModify();
        System.out.println(x);
        System.out.println(e7i.y);
    }

    private class Exercise7Inner {
        private int y;
        private void metodaModify() { x = 5; }
    }

    public static void main(String[] args) {
        Exercise7 e7 = new Exercise7();
        e7.metoda2();
    }
}
```

35. Napisati izlaz sljedećeg programa:

```
public class Testiranje{
    public static void main(String args[]){
        try {
            throw new Exc1();
        }catch (Exc0 e0){
            System.out.println("Ex0 caught");
        }catch (Exception e){
            System.out.println("exception caught");
        }
    }
}
class Exc0 extends Exception { }
class Exc1 extends Exc0 { }
```

36. Napisati izlaz sljedećeg programa:

```
public class G{
    static int x = 3;
    public static void main(String args[]) { new G(); }
    G(){ new G(2); }
    G(int x){ System.out.println(x); }
}
```

37. Napisati izlaz sljedećeg programa:

```
public class ExamQuestion7{
    static int j;
    static void methodA(int i){
        boolean b;
        do{
            b = i<10 | methodB(4);
            b = i<10 || methodB(8);
        }while (!b);
    }
    static boolean methodB(int i){
        j += i;
        return true;
    }
    public static void main(String[] args){
        methodA(0);
        System.out.println( "j = " + j );
    }
}
```

38. Napisati izlaz sljedećeg programa:

```
public class Go extends Game {
    Go() { super(s2); }
    {
        s += "i ";
    }
    public static void main(String[] args) {
        new Go();
        System.out.println(s);
    }
    static { s += "sb "; }
}

class Game {
    static String s = "-";
    String s2 = "s2";
    Game(String arg) { s += arg; }
}
```

39. Napisati izlaz sljedećeg programa:

```
public class Igra {
    public static void main(String[] args) {
        Integer i = new Integer(5);
        Integer j = new Integer(5);
        System.out.println(i == j);
        System.out.println( i == (new Integer(5))); } }
```



40. Napisati izlaz sljedećeg programa:

```
public class HummingBird extends Bird {

    public static void fly() { s += "hover "; }

    public static void main(String[] args) {
        Bird b1 = new Bird();
        Bird b2 = new HummingBird();
        Bird b3 = (HummingBird)b2;
        HummingBird b4 = (HummingBird)b2;

        b1.fly(); b2.fly(); b3.fly(); b4.fly();
        System.out.println(s);
    }
}

class Bird {
    public static String s = "";
    public static void fly() { s += "fly "; }
}
```

41. Napisati izlaz sljedećeg programa:

```
public class Izuzetak{
    public static void main(String[] args) {
        try{
            int x = 0;
            int y = 5 / x;
        }
        catch (Exception e){
            System.out.println("Exception");
        }catch (ArithmeticException ae) {
            System.out.println(" Arithmetic Exception");
        }
        System.out.println("finished");
    }
}
```

42. Napisati izlaz sljedećeg programa:

```
class MaskiranjeClanova {
    int x = 5;
}

public class MaskiranjeClanovaDva extends MaskiranjeClanova {
    int x = 6;
    public static void main(String[] args) {
        MaskiranjeClanova mc = new MaskiranjeClanova();
        MaskiranjeClanova mcd = new MaskiranjeClanovaDva();
        System.out.println(mcd.x + " " + mc.x);
    }
}
```

43. Napisati izlaz sljedećeg programa:

```
interface Counter {
    int next();
}

public class LocalInnerClass {
    private int count = 0;

    Counter getCounter(final String name){

        class LocalCounter implements Counter {
            public LocalCounter(){
                System.out.println("LocalCounter()");
            }
            public int next(){
                System.out.println(name);
                return count++;
            }
        }
        return new LocalCounter();
    }

    Counter getCounter2(final String name) {
        return new Counter() {
            {
                System.out.println("Counter()");
            }

            public int next() {
                System.out.println(name);
                return count++;
            }
        };
    }

    public static void main(String[] args) {
        LocalInnerClass lic = new LocalInnerClass();
        Counter
            c1 = lic.getCounter("Local inner "),
            c2 = lic.getCounter2("Anonymous inner ");
        for(int i = 0; i < 5; i++)
            System.out.println(c1.next());
        for(int i = 0; i < 5; i++)
            System.out.println(c2.next());
    }
}
```

44. Napisati izlaz sljedećeg programa:

```
public class MyExceptionTest {

    public static void main(String[] args) {
        try {
            second();
        } catch (MyException e) {
            System.out.println("Uhvacen i obradjen izuzetak " + e);
        }
    }

    public static void second() throws MyException { first(); }

    public static void first() throws MyException {
        throw new MyException("Poruka o gresci");
    }
}

class MyException extends Exception {
    MyException() {
        super();
    }

    MyException(String s) {
        super(s);
        System.out.println("MyException super");
    }
}
```

45. Nacrtati nit i ilustrovati kako ona radi.

```
class Test {
    public static void main(String []args) {
        new MyThread("nit");
    }
}

class MyThread extends Thread {

    public MyThread(String name) {
        this.setName(name);
        start();
        System.out.println("MyThread " + getName());
    }

    public void start() {
        System.out.println("start " + getName());
    }

    public void run() {
        System.out.println("run " + getName());
    }
}
```

46. Nacrtati nit i ilustrovati kako ona radi.

```
class MyThread extends Thread {
    public void run(){
        System.out.println("run - ime niti: " +
Thread.currentThread().getName());
    }
    public static void main(String args[])throws Exception{
        Thread myThread = new MyThread();
        myThread.start();
        MyThread nit = new MyThread();
        nit.start();
        nit.join();
        System.out.println("main - ime niti: " +
Thread.currentThread().getName());
    }
}
```

47. Napisati izlaz sljedećeg programa:

```
class One {
    void go1() { System.out.print("1 "); }
    final void go2() { System.out.print("2 "); }
    private void go3() { System.out.print("3 "); }
}

public class OneB extends One {
    void go1() { System.out.print("1b "); }
    void go3() { System.out.print("3b "); }

    public static void main(String[] args) {
        new OneB().go1();
        new One().go1();
        new OneB().go2();
        new OneB().go3();
        new One().go3();
    }
}
```

48. Uraditi izlaz sljedećeg programa:

```
class PassA {
    public static void main(String [] args) {
        PassA p = new PassA();
        p.start();
    }
    void start() {
        long [] a1 = {3,4,5};
        fix(a1);
        System.out.println(a1[0] + " " + a1[1] + " " + a1[2]);
    }
    long [] fix(long [] a3) {
        a3[1] = 7;
        return a3;
    }
}
```

49. Napisati izlaz sljedećeg programa:

```
public class PenguinTest {
    public static void main(String []args) {
        Penguin pingu = new Penguin();
        pingu.walk();
        pingu.fly();
    }
}
class CannotFlyException extends Exception {}

interface Birdie {
    public abstract void fly() throws CannotFlyException;
}

interface Biped { void walk(); }

abstract class NonFlyer {
    private void fly() { System.out.print("cannot fly "); }
}

class Penguin extends NonFlyer implements Birdie, Biped {
    public void walk() { System.out.print("walk\n"); }
}
```

50. Napisati izlaz sljedećeg programa:

```
public class Players {
    public static void main(String[] args) throws IOException,
        ClassNotFoundException {
        System.out.println("Constructing objects:");
        Player1 b1 = new Player1();
        Player2 b2 = new Player2();
    }
}
```

```
        ObjectOutputStream o = new ObjectOutputStream( new
FileOutputStream("Players.out"));
        System.out.println("Saving objects:");
        o.writeObject(b1);
        o.writeObject(b2);
        o.close();
        ObjectInputStream in = new ObjectInputStream( new
FileInputStream("Players.out"));
        System.out.println("Recovering b1:");
        b1 = (Player1)in.readObject();
        System.out.println("Recovering b2:");
        b2 = (Player2)in.readObject();
    }
}

class Player1 implements Serializable {
    public Player1() {
        System.out.println("Player1 Constructor");
    }
    public void writeExternal(ObjectOutput out)
        throws IOException {
        System.out.println("Player1.writeExternal");
    }
    public void readExternal(ObjectInput in) throws IOException,
ClassNotFoundException {
        System.out.println("Player1.readExternal");
    }
}

class Player2 implements Externalizable {
    public Player2() {
        System.out.println("Player2 Constructor");
    }
    public void writeExternal(ObjectOutput out) throws IOException
    {
        System.out.println("Player2.writeExternal");
    }
    public void readExternal(ObjectInput in) throws IOException,
ClassNotFoundException {
        System.out.println("Player2.readExternal");
    }
}
```