ASSIGNMENT-LAB 06

Course Code: CSE-2340 **Course Title:** Software Development 1
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Problem 01: Method Overloading.

Answer:

```
import java.util.*;

class Calculator
{
    int add(int a, int b)
    {
        return a + b;
    }

    double add(double a, double b)
    {
        return a + b;
    }

    public static void main(String[] args)
    {
        Calculator calculator = new Calculator();
        System.out.println(calculator.add(7, 7));
        System.out.println(calculator.add(3.7, 2.5));
    }
}
```

Problem 02: Single Inheritance.

Answer:

```
import java.util.*;

class Pa
{
    void par()
    {
        System.out.println("Parent");
    }

    public static void main(String[] args)
    {
        ch child = new ch();
        child.par();
        child.ch();
```

```
    }
}

class ch extends Pa
{
    void ch()
    {
        System.out.println("Child");
    }
}
```

Problem 03: Multilevel Inheritance.

Answer:

```
import java.util.*;
class A
{
 int a=1;
}
class B extends A
{
 int b=2;
}
class C extends B
{
 public static void main(String args[])
 {
   C p=new C();
   System.out.println(p.a);
   System.out.println(p.b);
}
}
```

Problem 04: Hierarchical Inheritance.

Answer:

```
import java.util.*;
class Animal
{
    void eat()
    {
        System.out.println("Animal eats");
    }

    public static void main(String[] args)
    {
        Dog dog = new Dog();
        dog.eat();
        dog.bark();
```

```
        Cat cat = new Cat();
        cat.eat();
        cat.meow();
    }
}

class Dog extends Animal
{
    void bark()
    {
        System.out.println("Dog barks");
    }
}

class Cat extends Animal
{
    void meow()
    {
        System.out.println("Cat meows");
    }
}
```

Problem 05: **Constructor.**

Answer:

```
import java.util.*;
class Q
{
    int v;

    Q(int val)
    {
        v = val;
    }

    public static void main(String[] args)
    {
        Q myObject = new Q(2+2);
        System.out.println("Value: " + myObject.v);
    }
}
```

Problem 06: **Final Keyword.**

Answer:

```
import java.util.*;
class F
{
    final int c = 42;
```

```
    public static void main(String[] args)
    {
        F final1 = new F();
        System.out.println(final1.c);
    }
}
```

Problem 07: **Super Keyword.**

Answer:

```
import java.util.*;
class P
{
    P()
    {
        System.out.println("Parent constructor ");
    }
}

class ch extends P
{
    ch()
    {
        super();
        System.out.println("Child constructor");
    }

    public static void main(String[] args)
    {
        ch child3 = new ch();
    }
}
```

Problem 08: **Static Keyword.**

Answer:

```
import java.util.*;
class Q
{
   static void s()
   {
      System.out.println("This is a static method");
   }

   public static void main(String[] args)
   {
```

```
      s();
   }
}
```

Problem 09: Abstract Keyword.

Answer:

```
import java.util.*;
abstract class Shape
{
   abstract void draw();
}

class Circle extends Shape
{
   void draw()
   {
      System.out.println("Drawing a circle");
   }

   public static void main(String[] args)
   {
      Circle circle = new Circle();
      circle.draw();
   }
}
```

Problem 10: Method Overriding.

Answer:

```
import java.util.*;
class A
{
   void MS()
   {
      System.out.println("Cat");
   }

   public static void main(String[] args)
   {
      A an = new D();
```

```
        an.MS();
    }
}

class D extends A
{
    void MS()
    {
        System.out.println("Dog");
    }
}
```