

## Mid java113 2019 secondSemester

```
public abstract class Item
{
    private String name ;

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

    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }

    public String toString() {
        return "name=" + name ;
    }

    public abstract void print() ;
    public abstract int computeDose(int age ) ;

}
//-----
public class Medicine extends Item
{
    public int price ;
    private String usage ;
    public Medicine()
    {
        this(null , 0 , null ) ;
    }

    public Medicine(String name , int p, String usage) {
        super(name);
        this.price = p;
        this.usage = usage;
    }

    public void print()
    {
        System.out.print(super.getName() + " " + this.price + " " +
            this.usage );
    }

    public int computeDose(int age )
    {
        System.out.print("Medicine" + super.getName()+ " ");
        if( super.getName().charAt(0) == 'V' && age >10 )
            return 7 ;
        return 10 ;
    }

}
```

```

public String toString()
{
    return super.toString() + " price : " + this.price + " Usage: " +
    this.getUsage() ;
}

public String getUsage()
{
    return this.usage ;
}

public void setUsage(String s)
{
    this.usage = s;
}

}

//-----

public class Vitamins extends Medicine
{
    private int year ;

    public Vitamins( String name, int p, String usage ,int w) {
        super(name, p, usage);
        this.year = w;
    }

    public void print()
    {
        super.print();
        System.out.print(this.year);
    }

    public void merge(Item item)
    {
        Medicine M = (Medicine) item ;
        super.setName(super.getName() + " " + M.getName() );
        super.setUsage(super.getUsage() + " " + M.getUsage() );
        M.setName(null);
        M.setUsage(null);
    }

    public void getDescription(Item item )
    {
        System.out.println(item.getClass().getName() + " " + ((Vitamins)
        item).year );
    }
}

//=====

```