

```
package pro;

public abstract class employee implements payable {
    private String firstName;
    private String lastName;
    private String socialSecurityNumber;

    public employee(String first , String last , String ssn) {
        firstName=first;
        lastName=last;
        socialSecurityNumber=ssn;
    }

    public String getFirstName() {
        return firstName;
    }

    public void setFirstName(String first) {
        this.firstName = first;
    }

    public String getLastName() {
        return lastName;
    }

    public void setLastName(String last) {
        this.lastName = last;
    }

    public String getSocialSecurityNumber() {
        return socialSecurityNumber;
    }

    public void setSocialSecurityNumber(String ssn) {
        this.socialSecurityNumber = ssn;
    }

    public String toString() {
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        return String.format
            ("%s %s\nsocial security number: %s",
getFirstName(),getLastName(),
                                getSocialSecurityNumber());
    }

}

////////////////////////////////////

package pro;

public class invoice implements payable {
    private String partNumber;
    private String partDescription;
    private int quantity;
    private double pricePerItem;

    public invoice(String par,String description, int count, double
price) {
        partNumber=par;
        partDescription=description;
        quantity=count;
        pricePerItem=price;
    }

    public String getPartNumber() {
        return partNumber;
    }

    public void setPartNumber(String par) {
        this.partNumber = par;
    }

    public String getPartDescription() {
        return partDescription;
    }

    public void setPartDescription(String description) {
        this.partDescription = description;
    }
}

```

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    }

    public int getQuantity() {
        return quantity;
    }

    public void setQuantity(int count) {
        quantity=(count<0)?0:count;
    }

    public double getPricePerItem() {
        return pricePerItem;
    }

    public void setPricePerItem(double price) {
        pricePerItem =(price<0.0)?0.0:price;
    }

    public String toString () {
        return String.format("%s: \n%s: %s (%s) \n%s: %d \n%s:
%,.2f","invoice",
                                "part number ", getPartNumber(),
getPartDescription(),
                                "quantity " , getQuantity(), " price per item " ,
getPricePerItem());
    }

    public double getpaymentAmount() {
        return
            getQuantity()*getPricePerItem();
    }

}

////////////////////////////////////

package pro;

public interface payable {
    double getpaymentAmount();
}

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////////////////////////////////////
package pro;

public class payableInterfaceTest {

    public static void main(String[] args) {
        // TODO Auto-generated method stub

        payable payableob[]=new payable[4] ;

        payableob[0]= new invoice("01234", "seat", 2, 327.00);
        payableob[1]= new invoice("5678", "tire", 4, 79.00);

        payableob[2]= new salariedEmployee("maram", "smith", "111-
11-1111", 88.00);
        payableob[3]= new salariedEmployee("merna", "somer", "111-
11-1121", 80.00);

        System.out.println("invoices and employees polymorphically
:\n");
        for(payable currentpPayable : payableob) {

            System.out.printf("%s \n%s: $% , .2f
\n\n",currentpPayable.toString(),
                            "paymentdue"+
currentpPayable.getpaymentAmount());
        }

    }

}

////////////////////////////////////

package pro;

public class program {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        payable payableobjects[]= new payable[4];

        payableobjects[0]=new invoice("01234", "seat", 2, 375.00);
        payableobjects[1]=new invoice("56789", "tire", 4, 79.95);
        payableobjects[2]=

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        new salariedEmployee("john","smith","111-11-
1111",800.00) ;
        payableobjects[3]=
            new salariedEmployee("lisa","barnes","888-88-
8888",1200.00) ;
        System.out.println("invoices and employees processrd
polymorphically:\n");

        for(payable currentPayable:payableobjects) {

            System.out.printf("%s \n%s:
$%,.2f\n\n",currentPayable.toString()
                , "payment due
",currentPayable.getpaymentAmount());
        }

    }

}

////////////////////////////////////

package pro;

public class salariedEmployee extends employee {

    private double weekllysalary;

    public salariedEmployee(String first, String last, String
ssn,double salary) {
        super(first, last, ssn);
        setweekllysalary(salary);
    }
    public void setweekllysalary (double salary) {
        weekllysalary=salary<0.0?0.0:salary;
    }
    public double getWeekllysalary() {
        return weekllysalary;
    }
}

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    public double getpaymentAmount() {  
        return  
            getWeekllysalary();  
    }  
  
    public String toString() {  
        return String.format("salaried employee: %s\n%s: $%,.2f",  
            super.toString(), "weekly salary",  
getWeekllysalary());  
    }  
  
}  
  
////////////////////////////////////
```