

## Account.java

```
package weeklyassignment2;

public class Account {

    private int acctno;

    private double balance;


    public Account() {

    }


    public Account(int acctno, double balance) {

        this.acctno = acctno;

        this.balance = balance;

    }


    public int getAcctno() {

        return acctno;

    }


    public void setAcctno(int acctno) {

        this.acctno = acctno;

    }


    public double getBalance() {
```

```
        return balance;
    }

    public void setBalance(double balance) {
        this.balance = balance;
    }

    @Override
    public String toString() {
        return String.format("AccountNo: %-10s\tBalance:$%-10s",acctno,balance);
    }
}
```

## Customer.java

```
package weeklyassignment2;

public class Customer {
    private int id;
    private String name;
    private String phone;
    private Account account;

    public Customer() {
    }

    public Customer(int id, String name, String phone, Account account) {
        this.id = id;
        this.name = name;
        this.phone = phone;
        this.account = account;
    }
}
```

```
public int getId() {  
    return id;  
}
```

```
public void setId(int id) {  
    this.id = id;  
}
```

```
public String getName() {  
    return name;  
}
```

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

```
public String getPhone() {  
    return phone;  
}
```

```
public void setPhone(String phone) {  
    this.phone = phone;  
}
```

```
public Account getAccount() {  
    return account;  
}
```

```
public void setAccount(Account account) {  
    this.account = account;  
}
```

```
@Override
```

```
public String toString() {  
    return String.format("Customer details:\nCustomer Id: %-10s\tName: %-10s\tPhone: %-10s\nAccount details:\n%-10s",id,name,phone,account);  
}  
}
```

## Transaction.java

```
package weeklyassignment2;
```

```
import java.util.Date;
```

```
import java.util.List;
```

```
public class Transaction {
```

```
    private List<Customer> custList;
```

```
    private List<Bill> billList;
```

```
    public Transaction() {
```

```
    }
```

```
    public Transaction(List<Customer> custList, List<Bill> billList) {
```

```
        this.custList = custList;
```

```
        this.billList = billList;
```

```
    }
```

```
    public Customer getCustomer(int id) {
```

```
        for (Customer customer : custList) {
```

```
            if(customer.getId() == id){
```

```
                return customer;
```

```
            }
```

```
        }
```

```
    return null;  
}
```

```
public void payBill(){  
    for (Bill bill : billList) {  
        int custid = bill.getCustid();  
        Customer customer = getCustomer(custid);  
        if(customer == null){  
            System.out.println(String.format("Customer with customer id %d does  
not exists",custid));  
            continue;  
        }  
        double balance = customer.getAccount().getBalance();  
        if(balance >= bill.getAmount()){  
            bill.setPaid(true);  
            bill.setBillPaymentDate(new Date());  
            customer.getAccount().setBalance(balance-bill.getAmount());  
            System.out.println(String.format("Bill paid for customer id %d",custid));  
        }else{  
            bill.setPaid(false);  
            System.out.println(String.format("Bill cannot be paid for customer id  
%d",custid));  
        }  
        System.out.println(customer);  
    }  
}
```

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```
        System.out.println(bill);  
    }  
}  
  
}
```



## Bill.java

```
package weeklyassignment2;
```

```
import java.text.SimpleDateFormat;
```

```
import java.util.Date;
```

```
public class Bill {
```

```
    private int id;
```

```
    private int custid;
```

```
    private Date billGenerationDate;
```

```
    private Date billPaymentDate;
```

```
    private double amount;
```

```
    private boolean paid;
```

```
    SimpleDateFormat format = new SimpleDateFormat("dd-MM-yyyy hh:mm");
```

```
    public Bill() {
```

```
    }
```

```
    public Bill(int id, int custid, Date billGenerationDate, Date billPaymentDate,  
double amount, boolean paid) {
```

```
        this.id = id;
```

```
        this.custid = custid;
```

```
        this.billGenerationDate = billGenerationDate;
        this.billPaymentDate = billPaymentDate;
        this.amount = amount;
        this.paid = paid;
    }
```

```
    public int getId() {
        return id;
    }
```

```
    public void setId(int id) {
        this.id = id;
    }
```

```
    public int getCustid() {
        return custid;
    }
```

```
    public void setCustid(int custid) {
        this.custid = custid;
    }
```

```
    public Date getBillGenerationDate() {
        return billGenerationDate;
    }
```

```
}
```

```
public void setBillGenerationDate(Date billGenerationDate) {  
    this.billGenerationDate = billGenerationDate;  
}
```

```
public Date getBillPaymentDate() {  
    return billPaymentDate;  
}
```

```
public void setBillPaymentDate(Date billPaymentDate) {  
    this.billPaymentDate = billPaymentDate;  
}
```

```
public double getAmount() {  
    return amount;  
}
```

```
public void setAmount(double amount) {  
    this.amount = amount;  
}
```

```
public boolean isPaid() {  
    return paid;
```

```
}
```

```
public void setPaid(boolean paid) {
```

```
    this.paid = paid;
```

```
}
```

```
@Override
```

```
public String toString() {
```

```
    return String.format("Bill details: \nBill Id: %-10s\tCustomer Id: %-10s\tAmount:$%-10s\tGeneration Date: %-10s\tPayment Date: %-10s\tPaid: %-10s\n",id,custid,amount,format.format(billGenerationDate),billPaymentDate==null?"":format.format(billPaymentDate),paid? "Paid": "Not Paid");
```

```
}
```

```
}
```

## Main.java

```
package weeklyassignment2;
```

```
import java.util.ArrayList;
```

```
import java.util.Date;
```

```
import java.util.List;
```

```
public class Main {
```

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

```
        Bill b=new Bill();
```

```
        List<Customer> customerList = new ArrayList<>();
```

```
        customerList.add(new Customer(1,"Tom","9090901010",new  
Account(1,1000)));
```

```
        customerList.add(new Customer(2,"Jerry","9090902020",new  
Account(2,1500)));
```

```
        List<Bill> billList = new ArrayList<>();
```

```
        billList.add(new Bill(1,1,b.format.parse("12-09-2022"),null,1001,false));
```

```
        billList.add(new Bill(2,2,b.format.parse("13-09-2022"),null,500,false));
```

```
        billList.add(new Bill(3,3,b.format.parse("16-09-2022"),null,1000,false));
```

```
        Transaction transaction = new Transaction(customerList,billList);
```

```
        transaction.payBill();
```

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}

}