```
//_____________________Account file_____________________

package week3project;

public class Account {
    private int acctno;
    private double
    balance;

    // default Constructor
    public Account() {
    }

    // parameterized    constructors
    public Account(int acctno, double balance) {
        this.acctno = acctno;
        this.balance = balance;
    }

    // getters and setters
    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;
    }

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

}
```

```
//_____________________Customer file_____________________

package week3project;

public class
    Customer {
    private int id;
    private String
```

```
    name; private
    String phone;
    private Account account;

          // default
         Constructor
public Customer() {
```

```
    }
// parameterized   constructors
    public Customer(int id, String name, String phone, Account
    account) {
        this.id = id;
        this.name =
        name;
        this.phone =
        phone;
        this.account = account;
    }
 // getters and setters
    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;
    }
 // to
    String
    @Overri
    de
    public String toString() {
        return String.format("Customer details:\nCustomer Id: %-
10s\tName: %- 10s\tPhone: %-10s\nAccount details:\n%-
10s",id,name,phone,account);
    }
```

```
}
//____________________Bill File_____________________________________

package week3project;

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");

     // default
     Constructor
   public Bill() {
    }
      // parameterized
          constructors
    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;
    }

 // getters and setters
    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;
    }

 // to
    String
    @Overri
    de
    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),billPayme
ntDate
==null?"":format.format(billPaymentDate),paid? "Paid": "Not
Paid");
    }

}

//_____________________Transaction file_____________________________________

package week3project;

import
java.util.Date;
import
java.util.List;

public class Transaction {
    private List<Customer>
    custList; private
    List<Bill> billList;

// default
    Constructor public
    Transaction() {
    }
// parameterized   constructors
    public Transaction(List<Customer> custList, List<Bill>
        billList) { this.custList = custList;
        this.billList = billList;
```

```
    }


// get method
    public Customer getCustomer(int
        id) { for (Customer customer :
        custList) {
            if(customer.getId() ==
                id){ return
                customer;
            }
        }
        return null;
    }
```

```
// pay method

 void payBill(){
       for (Bill bill : billList) {      // checking bill id
bill is present or not
           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));
           }

           // printing the Customer
           and Bill
           System.out.println(customer
           );
           System.out.println(bill);
       }
   }

}



//_____________________________Main file_____________________________


//imported the essential
libraries import
java.sql.Date;
import
java.util.ArrayList;
import
java.util.List;
```

```
//created main class with main

method public class Main {

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

        //creating object of customer
        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)));

        //creating object of bill

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

        billList.add(newBill(1,1,b.format.parse("12-09-
        2022),null,1001,false));
        billList.add(newBill(2,2, ,b.format.parse("13-09-
        2022),null,500,false));
        billList.add(newBill(3,3,b.format.parse("14-09-
        2022),null,1000,false));

        //creating the object of transaction

        Transaction transaction = new
        Transaction(customerList,billList); transaction.payBill();
}

}
```

```
customerList.add(new Customer(1,"Tom","9090901010",new
Account(1,1000))); customerList.add(new Customer(2,"Jerry","9090902020",new
Account(2,1500)));

        //creating object of bill

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

        billList.add(newBill(1,1,b.format.parse("12-09-
        2022),null,1001,false));
        billList.add(newBill(2,2, ,b.format.parse("13-09-
        2022),null,500,false));
        billList.add(newBill(3,3,b.format.parse("14-09-
        2022),null,1000,false));

        //creating the object of transaction

        Transaction transaction = new
        Transaction(customerList,billList); transaction.payBill();
}

}
```