```java
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 String getAddres() {
    return addres;
}

public void setAddres(String addres) {
    this.addres = addres;
}
```

```java
@Override
public String toString() {
    String result="Client Information"
            +"\n-----------------------"
            +"\nId: "+this.getId()
            +"\nName: "+this.getName()
            +"\nName: "+this.getPhone()
            +"\nName: "+this.getAddres();
    return result;

}
```

```java
public class Client {
    private String id;
    private String name;
    private String phone;
    private String addres;

    public Client() {
    }

    public Client(String id, String name, String phone, String addres) {
        this.id = id;
        this.name = name;
        this.phone = phone;
        this.addres = addres;
    }

    public String getId() {
        return id;
    }

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

    public String getName() {
        return name;
    }

    public void setName(String name) {
```

Client class

```java
import Domain.Client;

/**
 *
 * @author wtfan
 */
public abstract class Account {



    protected String acccountNumber;
    protected double balance;
    protected Client client;

    public Account() {
    }

    public Account(String acccountNumber, double balance, Client client) {
        this.acccountNumber = acccountNumber;
        this.balance = balance;
        this.client = client;
    }

    public String getAcccountNumber() {
        return acccountNumber;
    }

    public void setAcccountNumber(String acccountNumber) {
        this.acccountNumber = acccountNumber;
    }

    public double getBalance() {
        return balance;
    }

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

```
    public double getBalance() {
        return balance;
    }

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

    public Client getClient() {
        return client;
    }

    public void setClient(Client client) {
        this.client = client;
    }


    //----------------------------------------
    //Methods in order to represent polimorfism
    //----------------------------------------
    public abstract void deposit(double amount);
    public abstract void withdraw(double amount);
    public abstract double interestCalculation();

    //redefine tostring

    public String toString(){
    String result="BANK ACCOUNT INFORMATION: "
            +"\n---------------------------"
            +"\nAccount Number:"+ this.getAcccountNumber()
            +"\nBalance: "+ this.getBalance()
            +"\nAccount Owner:"+ this.getClient().toString();

    return result;
    }


}
```

Account class abstract

```java
package Logic;

import Domain.Client;

public class CurrentAccount extends Account {


    private float interest;

    public CurrentAccount() {
    }

    public CurrentAccount(float interest, String acccountNumber, double balance, Client client) {
        super(acccountNumber, balance, client);
        this.interest = interest;
    }

    public float getInterest() {
        return interest;
    }

    public void setInterest(float interest) {
        this.interest = interest;
    }

    @Override
    public void deposit(double amount) {
      super.setBalance(getBalance()+amount);
    }

    @Override
    public void withdraw(double amount) {
     super.setBalance(interestCalculation()-amount);
    }

    @Override
    public double interestCalculation() {
      double interestFinal=0;
       interestFinal=(super.getBalance()
                *this.interest)
                /12;

      return interestFinal;
    }
     public String tostring() {
    String result="\n\nACCOUNT TYPE: CURRENT ACCOUNTS"
           +"\n---------------------------"
            +"\nInterest: "+this.getInterest()+"%"
           +"\nInterest you got: "
           +this.interestCalculation()
           +"\nBalance + Interests gained: "+(this.interestCalculation()+this.getBalance());
    return super.toString()+result;
            }
}
```

Current Account class

```java
package Logic;

import java.util.Date;

/**
 *
 * @author wtfan
 */
public class Log {


private int eventId;
private String event;
private Date date;
private Account account;
private double movement;

private static int consecutive=0;

    public Account getAccount() {
        return account;
    }

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

    public Log() {
this.eventId=++ consecutive;

    }

    public Log(int eventId, String event,  Account account, double movement) {
         this();
        this.eventId = eventId;
        this.event = event;
        this.date = date;
        this.account = account;
        this.movement = movement;
    }


    public int getEventId() {
        return eventId;
    }

    public void setEventId(int eventId) {
        this.eventId = eventId;
    }

    public String getEvent() {
        return event;
    }

    public void setEvent(String event) {
```

```
    public Date getDate() {
        return date;
    }

    public void setDate(Date date) {
        this.date = date;
    }

    public double getMovement() {
        return movement;
    }

    public void setMovement(double movement) {
        this.movement = movement;
    }

    public static int getConsecutive() {
        return consecutive;
    }

    public static void setConsecutive(int consecutive) {
        Log.consecutive = consecutive;
    }

    @Override
    public String toString() {
String result ="LOG INFORMATION"
        +"\n--------------------------"
        +"\nEevent ID: "+this.getEventId()
        +"\nEevent TYPE: "+this.getEvent()
        +"\nTransaction Date: "+this.getDate()
        +"\nMovement Amount: "+this.getMovement()
        +"\nAfeccted Account: "+this.getAccount().toString();
return result;

        }
}
```

Class LOG

```java
public class SavingAccount extends Account {


    //Atributes
    private String starDate;
    private int monthsNumber;
    private float interest;

    public SavingAccount(String starDate, int monthsNumber, float interest) {
        this.starDate = starDate;
        this.monthsNumber = monthsNumber;
        this.interest = interest;
    }

    public SavingAccount(String starDate, int monthsNumber, float interest, String acccountNumber, double balance, Client client) {
        super(acccountNumber, balance, client);
        this.starDate = starDate;
        this.monthsNumber = monthsNumber;
        this.interest = interest;
    }

    public String getStarDate() {
        return starDate;
    }

    public void setStarDate(String starDate) {
        this.starDate = starDate;
    }

    public int getMonthsNumber() {
        return monthsNumber;
    }

    public void setMonthsNumber(int monthsNumber) {
        this.monthsNumber = monthsNumber;
    }

    public float getInterest() {
        return interest;
    }

    public void setInterest(float interest) {
        this.interest = interest;
    }




    @Override
    public void deposit(double amount) {

    //super.setBalance(interestCalculation()+amount);
    super.setBalance(getBalance()+amount);


    }
```

```java
    @Override
    public void withdraw(double amount) {


        super.setBalance(interestCalculation()-amount);
    }

    @Override
    public double interestCalculation() {
        double interestTotal=0;

    interestTotal=(this.getInterest()
            /this.getMonthsNumber())
            *super.getBalance();

    return interestTotal;
    }

    //toString


    public String toString() {
    String result="\nACCOUNT TYPE: SAVING ACCOUNTS"
           +"\n----------------------------"
            +"\n Saving Star Date: "+this.getStarDate()
             +"\nMonths: "+this.getMonthsNumber()
             +"\nInterest: "+this.getInterest()+"%"
            +"\nInterest you got: "
            +this.interestCalculation()
            +"\nStar Date + Interests gained: "+(this.interestCalculation()+this.getBalance());
    return super.toString()+result;
            }

}
```

SavingAccount Class

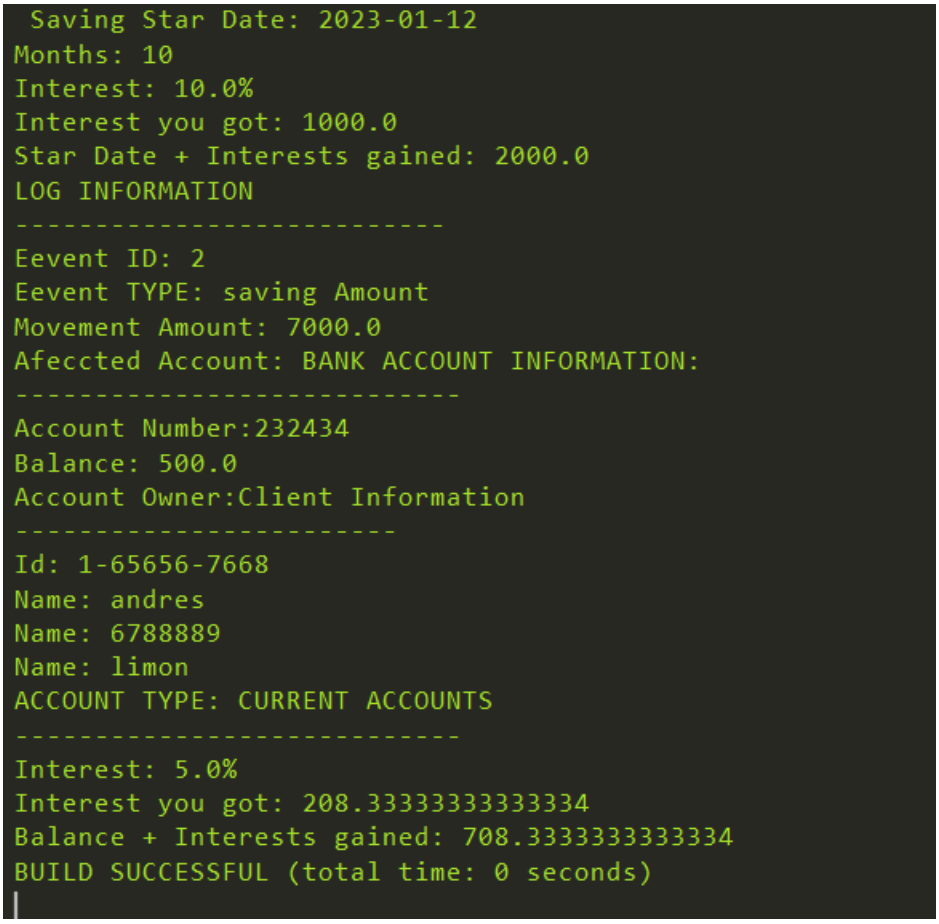
```java
package Presentation;

import Domain.Client;
import Logic.CurrentAccount;
import Logic.Log;
import Logic.SavingAccount;

/**
 *
 * @author wtfan
 */
public class LogTesting {

    public LogTesting() {
    }
    public void test(){
    Client clients[]=new Client[10];
    Client client1=new Client(id:"1-1112-4567", name: "joaquin",phone:"1234423",addres:"limon");
    Client client2=new Client(id:"1-332-5434",name: "steven",phone:"56565",address: "moin");
    Client client3=new Client(id:"1-65656-7668",name: "andres",phone:"6788889",addres:"limon");
    clients[0]=client1;
    clients[1]=client2;
    clients[2]=client3;


        SavingAccount account1=new SavingAccount(starDate:"2024-03-15", monthsNumber:10, interest:5, acccountNumber:"14560", balance:1000, client:client1);
        SavingAccount account2=new SavingAccount(starDate:"2023-01-12", monthsNumber:10, interest:10, acccountNumber:"13560", balance:1000, client:client2);
        CurrentAccount account=new CurrentAccount(interest:5, accountNumber:"232434", balance:500, client:client3);
        Log log[]=new Log[3];
        log[0]=new Log(eventId:1,event:"saving Amount",account:account1,movement:70000);
        log[1]=new Log(eventId:2,event:"saving Amount",account:account2,movement:7000);
        log[2]=new Log(eventId:2,event:"saving Amount",account,movement:7000);

        for(int i=0; i<log.length;i++){
        if(log[i]!=null)
                System.out.println(x:log[i].toString());

        }


    }
}
```

LogTesting Class

```java
/**
 *
 * @author wtfan
 */
public class Main {
    public static void main(String[] args) {
        LogTesting logTest=new LogTesting();
        logTest.test();
    }
}
```

Main class

```
run:
LOG INFORMATION
---------------------------
Eevent ID: 1
Eevent TYPE: saving Amount
Movement Amount: 70000.0
Afeccted Account: BANK ACCOUNT INFORMATION:
----------------------------
Account Number:14560
Balance: 1000.0
Account Owner:Client Information
------------------------
Id: 1-1112-4567
Name: joaquin
Name: 1234423
Name: limon
ACCOUNT TYPE: SAVING ACCOUNTS
---------------------------
 Saving Star Date: 2024-03-15
Months: 10
Interest: 5.0%
Interest you got: 500.0
Star Date + Interests gained: 1500.0
LOG INFORMATION
---------------------------
Eevent ID: 2
Eevent TYPE: saving Amount
Movement Amount: 7000.0
Afeccted Account: BANK ACCOUNT INFORMATION:
----------------------------
Account Number:13560
Balance: 1000.0
Account Owner:Client Information
------------------------
Id: 1-332-5434
Name: steven
Name: 56565
Name: moin
ACCOUNT TYPE: SAVING ACCOUNTS
---------------------------
```



Output data

Steven Alvarado Guzman C30333