```
public class App {
   public static void main(String[] args) throws Exception {
      Account account = new Account("George", "1122", 1000,1.65);
      account.deposit(30);
      account.deposit(40);
      account.deposit(50);
      account.withdraw(5);
      account.withdraw(4);
      account.withdraw(2);
      account.showTransactions();
   }
}



import java.util.Date;
import java.util.ArrayList;

class Account {
   private String name;
   private String id;
   private double balance;
   private double annualInterestRate;
   ArrayList<Transaction> transactions = new ArrayList<Transaction>();


   public Account(String name,String id,double balance,double annualInterestRate){
      this.name = name;
      this.id = id;
      this.balance = balance;
      this.annualInterestRate = annualInterestRate;
   }

   //setter

   public String setName(){
      return name;
   }

   public String setId(){
      return id;
   }

   public double setBalance(){
```

```
   return balance;
}

//function
public void withdraw(double withdraw){
   if(withdraw>0){
      balance -= withdraw;
      if(balance>=0){
         this.transactions.add(new Transaction('W',withdraw,balance,""));
      }
      else{
         balance+=withdraw;
      }
   }

}

public void deposit(double deposit){
  if(deposit>0){
      balance += deposit;
      this.transactions.add(new Transaction('D',deposit,balance,""));
  }
}


//getter

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

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

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

// render
public void showTransactions(){
   System.out.println("Name: "+name);
   System.out.println("Account ID: "+id);
   System.out.println("Annual interest rate: " + annualInterestRate);
```

```
        System.out.printf("Balance: %.2f\n",balance);
        System.out.println("Date\t\t\tType\t\tAmount\t\tBalance");
        for(int i=0;i<transactions.size();i++){
            Transaction ts = transactions.get(i);
            System.out.println(ts.getDate() + "\t" +
                ts.getType() +  "\t\t" +
                ts.getAmount() +  "\t\t" +
                ts.getBalance());
        }
    }
}



import java.util.Date;

class Transaction{
        private Date date;
        private char type;
        private double amount;
        private double balance;
        private String discription;

        public Transaction(char type,double amount,double balance,String discription){
                this.date = new Date();
                this.type = type;
                this.amount = amount;
                this.balance = balance;
                this.discription = discription;
        }

        public void withdraw(double withdraw){
                balance -= withdraw;
        }

        public void deposit(double deposit){
                balance += deposit;
        }

        // getter

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

```
	public char getType(){
		return type;
	}

	public double getAmount(){
		return amount;
	}

	public double getBalance(){
		return balance;
	}

	public String discription(){
		return discription;
	}
}
```