

```

package problem2;
class Account {
    private final static double DEFAULT_BALANCE = 0.0;
    private double balance;
    private AccountType acctType;

    private Employee employee;

    Account(Employee emp, AccountType acctType, double balance ) {
        employee = emp;
        this.acctType = acctType;
        this.balance = balance;
    }

    Account(Employee emp, AccountType acctType) {
        this(emp, acctType, DEFAULT_BALANCE);
    }

    public String toString() {
        return "type = " + acctType + ", balance = " + balance;
    }

    public void makeDeposit(double deposit) {
        // implement
        this.balance=this.balance+deposit;
    }

    public boolean makeWithdrawal(double amount) {
        if (this.balance <= amount)
        {
            this.balance=this.balance-amount;
            return true;
        }

        return false;
    }

    public static double getDefaultBalance() {
        return DEFAULT_BALANCE;
    }

    public double getBalance() {
        return balance;
    }

    public AccountType getAcctType() {
        return acctType;
    }

}

package problem2;

public enum AccountType {
    CHECKING ,
    SAVINGS ,
    RETIREMENT ;
}

```

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package problem2;

import java.util.Date;
import java.util.GregorianCalendar;

public class Employee {
    // instance fields
    private String name;
    private String nickName;
    private double salary;
    private Date hireDay;

    // constructor
    Employee(String name, String aNickName, double aSalary, int aYear,
              int aMonth, int aDay) {
        this.name = name;
        nickName = aNickName;
        salary = aSalary;
        GregorianCalendar cal = new GregorianCalendar(aYear, aMonth - 1, aDay);
        hireDay = cal.getTime();
    }

    // instance methods
    public String getName() {
        return name;
    }
    public String getNickName() {
        return nickName;
    }
    public void setNickName(String aNickName) {
        nickName = aNickName;
    }
    public double getSalary() {
        return salary;
    }
    // needs to be improved
    public Date getHireDay() {
        return (Date)hireDay.clone();
    }

    public void raiseSalary(double byPercent) {
        double raise = salary * byPercent / 100;
        salary += raise;
    }
    private String format = "name = %s, salary = %.2f, hireDay = %s";

    public String toString() {
        return String.format(format, name, salary, Util.dateAsString(hireDay));
    }
}

```

```

package problem2;

public class testProblem2 {
    public static void main(String[] args) {

        Employee employee = new Employee("Juan Francisco", "Maxiplux", 1500000, 2018, 1, 30);
        Account account_checking = new Account(employee, AccountType.CHECKING,300.0);
        Account account_savings = new Account(employee, AccountType.SAVINGS,300.0);
        Account account_retirement = new Account(employee, AccountType.RETIREMENT,300.0);

        account_checking.makeDeposit(100);
        account_savings.makeDeposit(100);
        account_retirement.makeDeposit(100);

        account_checking.makeWithdrawal(50);
        account_savings.makeWithdrawal(50);
        account_retirement.makeWithdrawal(50);

        Account[] database = {account_checking,account_savings,account_retirement};

        for (Account account : database) {
            System.out.println(account);
        }

    }
}

```

```

package problem2;

import java.text.DateFormat;
import java.util.Date;

public class Util {
    public static String dateAsString(Date d) {
        DateFormat f = DateFormat.getDateInstance(DateFormat.SHORT);
        return f.format(d);
    }
}

```