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package problem3;

import java.util.Scanner;

import problem3.employeeinfo.*;

public class Main {
    Employee[] emps = null;

    public static void main(String[] args) {
        new Main();
    }

    Main() {
        emps = new Employee[3];
        emps[0] = new Employee("Jim Daley", 2000, 9, 4);
        emps[1] = new Employee("Bob Reuben", 1998, 1, 5);
        emps[2] = new Employee("Susan Randolph", 1997, 2, 13);
        emps[0].createNewChecking(10500);
        emps[0].createNewSavings(1000);
        emps[0].createNewRetirement(9300);
        emps[1].createNewChecking(34000);
        emps[1].createNewSavings(27000);
        emps[2].createNewChecking(10038);
        emps[2].createNewSavings(12600);
        emps[2].createNewRetirement(9000);
        // for phase I - console output
        Scanner sc = new Scanner(System.in);
        System.out.print("See a report of all account balances? (y/n) ");
        String answer = sc.next();
        if (answer.equalsIgnoreCase("y"))
        {
            String info = getFormattedAccountInfo();
            System.out.println(info);
        } else {
            // do nothing..the application ends here
        }
    }

    private String getFormattedAccountInfo() {
        StringBuilder str = new StringBuilder("");
        for (Employee employee : emps)
        {
            str.append("\n");
            str.append(employee.getFormattedAcctInfo());
        }
        return str.toString();
    }
}

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package problem3.employeeinfo;

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()
    {
        String template = "";
        if (this.acctType!=null)
        {
            template = String.format("Account type: %s",
this.acctType);
        }

        if (this.acctType!=null)
        {
            template = template + String.format("\nCurrent bal: %s\n",
this.getBalance());
        }

        return template;
    }

    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;
        }
    }
}

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        return false;
    }

    public static double getDefaultBalance() {
        return DEFAULT_BALANCE;
    }

    public double getBalance() {
        return balance;
    }

    public AccountType getAcctType() {
        return acctType;
    }
}

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package problem3.employeeinfo;
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public enum AccountType {
    CHECKING ,
    SAVINGS ,
    RETIREMENT ;
}

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package problem3.employeeinfo;
import static java.util.Optional.ofNullable;

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import java.time.LocalDate;
import java.util.Date;
import java.util.GregorianCalendar;

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public class Employee {

    private Account savingsAcct;
    private Account checkingAcct;
    private Account retirementAcct;
    private String name;
    private LocalDate hireDate;

    public String getName() {
        return name;
    }

    public LocalDate getHireDate() {
        return hireDate;
    }
}

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    public Employee(String name, int yearOfHire, int monthOfHire, int
dayOfHire){
        this.name = name;

        hireDate = LocalDate.of(yearOfHire, monthOfHire, dayOfHire);
    }

    public void createNewChecking(double startAmount) {
        // implement
        if (this.checkingAcct == null ) {
            this.checkingAcct=new Account(this, AccountType.CHECKING,
startAmount);
        }
    }

    public void createNewSavings(double startAmount) {
        if (this.savingsAcct == null ) {
            this.savingsAcct=new Account(this,
AccountType.SAVINGS, startAmount);
        }
    }

    public void createNewRetirement(double startAmount) {
        if (this.retirementAcct == null )
        {
            this.retirementAcct=new Account(this,
AccountType.RETIEMENT, startAmount);
        }
    }

    public String getFormattedAcctInfo()
    {
        String template = "ACCOUNT INFO FOR %s\n\n%s%s%s";
        return String.format(template,this.getName(),
(this.checkingAcct==null?"":this.checkingAcct),(this.savingsAcct==null?"":this.s
avingsAcct) ,(this.retirementAcct==null?"":this.retirementAcct) );
    }
    public void deposit(AccountType acctType, double amt){
        switch (acctType)
        {

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        case CHECKING:
            this.checkingAcct.makeDeposit(amt);

            break;

        case RETIREMENT:
            this.retirementAcct.makeDeposit(amt);

            break;
        case SAVINGS:
            this.savingsAcct.makeDeposit(amt);
            break;
        default:
            System.out.println("the type that your enter is not define
on our database");
            break;
    }
}

public boolean withdraw(AccountType acctType, double amt){
    switch (acctType)
    {
        case CHECKING:
            return this.checkingAcct.makeWithdrawal(amt);

        case RETIREMENT:
            return this.retirementAcct.makeWithdrawal(amt);

        case SAVINGS:
            return this.savingsAcct.makeWithdrawal(amt);
        default:
            System.out.println("the type that your enter is not define
on our database");
            break;
    }
    return false;
}
}

```