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```

=====
=                               Print Date: Sat Oct 29 17:19:03 2016                               =
=====

=====
=                               Source Files                               =
=====

~~~~~
~                               File: AirlineEmployee.java                               ~
~~~~~

import java.util.*;
import java.io.*;

public abstract class AirlineEmployee {
    private int id;
    private String name;
    private String employeeType;
    private String sex;
    private int date;

    protected AirlineEmployee(){
        id = 0;
        name = "";
        employeeType = "";
        sex = "";
        date = 0;
    }

    protected AirlineEmployee(int inId, String inName, String inType, String inSex, int inDate){
        id = inId;
        name = inName;
        employeeType = inType;
        sex = inSex;
        date = inDate;
    }

    public void setId(int inId){
        id = inId;
    }

    public void setName (String inName){
        name = inName;
    }

    public void setEmployeeType (String inType){
        employeeType = inType;
    }

    public void setSex(String inSex){
        sex = inSex;
    }

    public void setDate(int inDate){
        date = inDate;
    }

    public int getId(){
        return id;
    }

    public String getName(){
        return name;
    }
}

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    }

    public String getEmployeeType(){
        return employeeType;
    }

    public String getSex(){
        return sex;
    }

    public int getDate(){
        return date;
    }

    public void printRd(){
        System.out.printf("%4d %10s %10s %3s %6d", id, name, employeeType, sex, date);
    }

    public abstract double getSalary();
    public abstract double getDeduction();
    public abstract double getNetPay();
    public abstract String getRank();
    public abstract void printEmpRd();
}

~~~~~
~                               File: CoPilot.java                               ~
~~~~~

import java.util.*;
import java.io.*;

public class CoPilot extends AirlineEmployee{
    private double salary;
    private int level;
    private String rank;
    private double netPay;
    private final String rank1 = "2nd Officer";
    private final String rank2 = "Junior Officer";
    private final double deductionCP = 0.25;

    public CoPilot(){
        super();
        level = 0;
        salary = 0;
        rank = "";
        netPay = 0.0;
    }

    public CoPilot(int inId, String inName, String inType, String inSex, int inDate, int inLevel, double inSalary){
        super(inId,inName,inType,inSex,inDate);
        level = inLevel;
        salary = inSalary;

        calculateData();
    }

    public void calculateData(){
        //determine rank & netPay
        if (level == 1){
            rank = rank1;
        }
        else{
            rank = rank2;

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```
    }

    netPay = (salary/25) * (1 - deductionCP);
}

public void setId(int inId){
    super.setId(inId);
}

public void setName (String inName){
    super.setName(inName);
}

public void setEmployeeType (String inType){
    super.setEmployeeType(inType);
}

public void setSex(String inSex){
    super.setSex(inSex);
}

public void setDate(int inDate){
    super.setDate(inDate);
}

public int getId(){
    return super.getId();
}

public String getName(){
    return super.getName();
}

public String getEmployeeType(){
    return super.getEmployeeType();
}

public String getSex(){
    return super.getSex();
}

public int getDate(){
    return super.getDate();
}

public void setSalary(double inSalary){
    salary = inSalary;
}

public double getSalary(){
    return salary;
}

public String getRank(){
    calculateData();
    return rank;
}

public void setLevel(int inLevel){
    level = inLevel;
}

public double getDeduction(){
    calculateData();
    return (salary/25) * deductionCP;
}
```

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```

    public double getNetPay(){
        calculateData();
        return netPay;
    }
    public void printEmpRd(){
        calculateData();
        System.out.printf("%20s %10f %10f\n", rank, deductionCP, netPay);
    }
}

~~~~~
~                               File: Pilot.java                               ~
~~~~~

import java.util.*;
import java.io.*;

public class Pilot extends AirlineEmployee{
    private double salary;
    private int level;
    private String rank;
    private double deductionP;
    private double netPay;
    private final String rank1 = "Captain";
    private final String rank2 = "1st Officer";
    private final double deductionP1 = 0.30;
    private final double deductionP2 = 0.27;

    public Pilot(){
        super();
        level = 0;
        salary = 0;
        rank = "";
        deductionP = 0.0;
        netPay = 0.0;
    }

    public Pilot(int inId, String inName, String inType, String inSex, int inDate, int inLevel, double inSalary){
        super(inId,inName,inType,inSex,inDate);
        level = inLevel;
        salary = inSalary;

        calculateData();
    }

    public void calculateData(){
        //determine rank ,deduction, & netPay
        if (level == 1){
            rank = rank1;
            deductionP = (salary/25) * deductionP1;
        }
        else{
            rank = rank2;
            deductionP = (salary/25) * deductionP2;
        }

        netPay = (salary/25) * deductionP;
    }

    public void setId(int inId){
        super.setId(inId);
    }
}

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```

public void setName (String inName){
    super.setName(inName);
}

public void setEmployeeType (String inType){
    super.setEmployeeType(inType);
}

public void setSex(String inSex){
    super.setSex(inSex);
}

public void setDate(int inDate){
    super.setDate(inDate);
}

public int getId(){
    return super.getId();
}

public String getName(){
    return super.getName();
}

public String getEmployeeType(){
    return super.getEmployeeType();
}

public String getSex(){
    return super.getSex();
}

public int getDate(){
    return super.getDate();
}

public void setSalary(double inSalary){
    salary = inSalary;
}

public double getSalary(){
    return salary;
}

public String getRank(){
    calculateData();
    return rank;
}

public void setLevel(int inLevel){
    level = inLevel;
}

public double getDeduction(){
    calculateData();
    return deductionP;
}

public double getNetPay(){
    calculateData();
    return netPay;
}

public void printEmpRd(){
    calculateData();
    System.out.printf("%20s %10f %10f\n", rank, deductionP, netPay);
}

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```

}

~~~~~
~                               File: Steward.java                               ~
~~~~~

import java.util.*;
import java.io.*;

public class Steward extends AirlineEmployee{
    private double rate;
    private double hrs;
    private double pay;
    private double netPay;
    private double deductionS;
    private final double deductionS1 = 0.10;
    private final double deductionS2 = 0.15;
    private final double deductionS3 = 0.15;
    private final double deductionS4 = 0.15;
    private final double deductionS1Upper = 1600.00;
    private final double deductionS2Upper = 2400.00;
    private final double deductionS3Upper = 3200.00;

    public Steward(){
        super();
        hrs = 0;
        rate = 0;
        deductionS = 0.0;
        pay = 0.0;
        netPay = 0.0;
    }

    public Steward(int inId, String inName, String inType, String inSex, int inDate, int inHrs, double inRate){
        super(inId,inName,inType,inSex,inDate);
        hrs = inHrs;
        rate = inRate;

        calculateData();
    }

    public void calculateData(){
        pay = rate * hrs;
        if (pay < deductionS1Upper){
            deductionS = pay * deductionS1;
        }
        else if (pay >= deductionS1Upper && pay < deductionS2Upper) {
            deductionS = pay * deductionS2;
        }
        else if (pay >= deductionS2Upper && pay < deductionS3Upper){
            deductionS = pay * deductionS3;
        }
        else{
            deductionS = pay * deductionS4;
        }

        netPay = pay - deductionS;
    }

    public void setId(int inId){
        super.setId(inId);
    }

    public void setName (String inName){

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```
        super.setName(inName);
    }

    public void setEmployeeType (String inType){
        super.setEmployeeType(inType);
    }

    public void setSex(String inSex){
        super.setSex(inSex);
    }

    public void setDate(int inDate){
        super.setDate(inDate);
    }

    public int getId(){
        return super.getId();
    }

    public String getName(){
        return super.getName();
    }

    public String getEmployeeType(){
        return super.getEmployeeType();
    }

    public String getSex(){
        return super.getSex();
    }

    public int getDate(){
        return super.getDate();
    }

    public void setRate(double inRate){
        rate = inRate;
    }

    public String getRank(){
        return "None";
    }

    public double getSalary(){
        return pay;
    }

    public double getRate(){
        return rate;
    }

    public void setHrs(double inHrs){
        hrs = inHrs;
    }

    public void setPay(double inRate){
        rate = inRate;
    }

    public double getDeduction(){
        calculateData();
        return deductionS;
    }

    public double getNetPay(){
        calculateData();
        return netPay;
    }
```

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```

    }
    public void printEmpRd(){
        calculateData();
        System.out.printf("%20s %10f %10f\n", "None", deductionS, netPay);
    }
}

~~~~~
~                               File: p8.java                               ~
~~~~~

// p8.java
//*****
// YOUR NAME: Jerome Gifford
//
// COURSE TITLE: Computer Programming II
//
// COURSE NUMBER: CS216
//
// PROF NAME: Moe Bidgoli
//
// ASSIGNMENT NUMBER: #8
//
// DUE DATE: 10-31-2016
//
// POSSIBLE POINTS: 10 Points
//
// PURPOSE:
//*****

import java.util.*;
import java.io.*;

public class p8 {
    public static void main(String[] args) {
        Scanner inFile = new Scanner(System.in);
        AirlineEmployee filler = new Pilot();
        Pilot pl = new Pilot();
        Steward st = new Steward();
        CoPilot cp = new CoPilot();

        while (inFile.hasNext()){
            filler.setId(inFile.nextInt());
            filler.setName(inFile.next());
            filler.setEmployeeType(inFile.next());
            if ((filler.getEmployeeType()).equals("Piolet")){
                pl.setId(filler.getId());
                pl.setName(filler.getName());
                pl.setEmployeeType(filler.getEmployeeType());
                pl.setSex(inFile.next());
                pl.setDate(inFile.nextInt());
                pl.setLevel(inFile.nextInt());
                pl.setSalary(inFile.nextDouble());
                pl.calculateData();
                pl.printRd();
                pl.printEmpRd();
            }
            else if((filler.getEmployeeType()).equals("CoPiolet") || (filler.getEmployeeType()).equals("CoPiolrt")){
                cp.setId(filler.getId());
                cp.setName(filler.getName());
                cp.setEmployeeType(filler.getEmployeeType());
                cp.setSex(inFile.next());
                cp.setDate(inFile.nextInt());
                cp.setLevel(inFile.nextInt());
            }
        }
    }
}

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```

        cp.setSalary(inFile.nextDouble());
        cp.calculateData();
        cp.printRd();
        cp.printEmpRd();
    }
    else{
        st.setId(filler.getId());
        st.setName(filler.getName());
        st.setEmployeeType(filler.getEmployeeType());
        st.setSex(inFile.next());
        st.setDate(inFile.nextInt());
        st.setHrs(inFile.nextInt());
        st.setRate(inFile.nextDouble());
        st.calculateData();
        st.printRd();
        st.printEmpRd();
    }
}
}
}
}

```

```

=====
=                               Data Files                               =
=====

```

```

~~~~~
~                               File: p8216f1.f16                               ~
~~~~~

```

123	Mike	Piolet	M	2000	1	100000.00
776	Rose	CoPiolet	F	2011	2	70000.00
871	Jon	Steward	M	2008	85	20.00
926	Mary	Steward	F	2014	80	22.00
882	Steve	CoPiolrt	M	2012	1	800000.00
323	Lilily	Piolet	F	2012	2	90000.00
742	Lee	CoPiolet	M	2010	1	65000.00
871	James	Steward	M	2010	85	21.00
926	Jeff	Steward	M	2012	0	22.50
882	Andy	CoPiolrt	M	1999	2	70500.00

```

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-                               Execution                               -
-----

```

123	Mike	Piolet	M	2000		Captain	1200.000000	4800000.000000
776	Rose	CoPiolet	F	2011		Junior Officer	0.250000	2100.000000
871	Jon	Steward	M	2008		None	255.000000	1445.000000
926	Mary	Steward	F	2014		None	264.000000	1496.000000
882	Steve	CoPiolrt	M	2012		2nd Officer	0.250000	24000.000000
323	Lilily	Piolet	F	2012		1st Officer	972.000000	3499200.000000
742	Lee	CoPiolet	M	2010		2nd Officer	0.250000	1950.000000
871	James	Steward	M	2010		None	267.750000	1517.250000
926	Jeff	Steward	M	2012		None	0.000000	0.000000
882	Andy	CoPiolrt	M	1999		Junior Officer	0.250000	2115.000000

```

~~~~~
~                               File: p8216f2.f16                               ~
~~~~~

```

123	Mike	Piolet	M	2000	1	100000.00
-----	------	--------	---	------	---	-----------

```

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-                               Execution                               -
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```

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123 Mike Piolet M 2000 Captain 1200.000000 4800000.000000

~~~~~  
~ File: p8216f3.f16 ~  
~~~~~

776 Rose CoPiolet F 2011 2 70000.00

- Execution -

776 Rose CoPiolet F 2011 Junior Officer 0.250000 2100.000000

~~~~~  
~ File: p8216f4.f16 ~  
~~~~~

871 Jon Steward M 2008 85 20.00

- Execution -

871 Jon Steward M 2008 None 255.000000 1445.000000

~~~~~  
~ File: p8216f5.f16 ~  
~~~~~

776 Rose CoPiolet F 2011 2 70000.00

871 Jon Steward M 2008 85 20.00

926 Mary Steward F 2014 80 22.00

882 Steve CoPiolrt M 2012 1 800000.00

742 Lee CoPiolet M 2010 1 65000.00

871 James Steward M 2010 85 21.00

926 Jeff Steward M 2012 0 22.50

882 Andy CoPiolrt M 1999 2 70500.00

- Execution -

776 Rose CoPiolet F 2011 Junior Officer 0.250000 2100.000000

871 Jon Steward M 2008 None 255.000000 1445.000000

926 Mary Steward F 2014 None 264.000000 1496.000000

882 Steve CoPiolrt M 2012 2nd Officer 0.250000 24000.000000

742 Lee CoPiolet M 2010 2nd Officer 0.250000 1950.000000

871 James Steward M 2010 None 267.750000 1517.250000

926 Jeff Steward M 2012 None 0.000000 0.000000

882 Andy CoPiolrt M 1999 Junior Officer 0.250000 2115.000000