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Course: CS1073

Section: FR03B

Lab number: 5

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RestaurantWorker.java:

```
/**
 * This parent class represents someone who works at a restaurant.
 * @author Zohaib Khan 3740572
 */

public class RestaurantWorker {

    /**
     * This is the name of the worker.
     */
    private String name;

    /**
     * This is the job title of the worker.
     */
    private String jobTitle;

    /**
     * This is the hourly rate of the worker.
     */
    private double hourlyRate;

    /**
     * This is the constructor method to initialize all instance
     * variables.
     * @param name the name of the worker.
     * @param jobTitle the job title of the worker.
     * @param hourlyRate the hourly rate of the worker.
     */
    public RestaurantWorker (String name, String jobTitle, double
                             hourlyRate){
        this.name = name;
        this.jobTitle = jobTitle;
        this.hourlyRate = hourlyRate;
    }

    /**
     * This method returns the name of the worker.
     * @return name the name of the worker.
     */
    public String getName () {
        return name;
    }
}
```

```
/**
 * This method returns the job title of the worker.
 * @return jobTitle the job title of the worker.
 */
public String getJobTitle () {
    return jobTitle;
}

/**
 * This method returns the hourly rate of the worker.
 * @return hourlyRate the hourly rate of the worker.
 */
public double getHourlyRate () {
    return hourlyRate;
}

/**
 * This method computes and returns the total pay that this worker
 * earns this week.
 * @param hours the number of hours the worker has worked this week.
 * @return the total pay this worker earns this week.
 */
public double computePay (double hours) {
    return hourlyRate * hours;
}
}
```

Server.java:

```
/**
 * This subclass represents a server at this restaurant.
 * @author Zohaib Khan 3740572
 */

public class Server extends RestaurantWorker {

    /**
     * This is the footware allowance amount that this person earns (per
     * hour).
     */
    private double allowance;

    /**
     * This is the constructor method to initialize all instance
     * variables.
     * @param name the name of the worker.
     * @param jobTitle the job title of the worker.
     * @param hourlyRate the hourly rate of the worker.
     * @param allowance the hourly footware allowance of this worker.
     */
    public Server (String name, String jobTitle, double hourlyRate,
                   double allowance){
        super(name, jobTitle, hourlyRate);
        this.allowance = allowance;
    }

    /**
     * This method computes and returns the total pay that this person
     * earns this week.
     * @param hours the number of hours the worker has worked this week.
     * @return the total pay this person earns this week.
     */
    public double computePay (double hours) {
        return (allowance * (int)hours) + super.computePay(hours);
    }
}
```

Chef.java:

```
/**
 * This subclass represents a chef at a restaurant.
 * @author Zohaib Khan 3740572
 */

public class Chef extends RestaurantWorker {

    /**
     * This is the amount of union fees that is to be deducted from their
     * pay each week.
     */
    private double unionFees;

    /**
     * This is the constructor method to initialize all instance
     * variables.
     * @param name the name of the worker.
     * @param jobTitle the job title of the worker.
     * @param hourlyRate the hourly rate of the worker.
     * @param unionFees the weekly union fees of this worker.
     */
    public Chef (String name, String jobTitle, double hourlyRate,
                 double unionFees){
        super(name, jobTitle, hourlyRate);
        this.unionFees = unionFees;
    }

    /**
     * This method computes and returns the total pay that this person
     * earns this week.
     * @param hours the number of hours the worker has worked this week.
     * @return the total pay this person earns this week.
     */
    public double computePay (double hours) {
        if (hours > 40) {
            return super.computePay(40)
                + super.computePay((hours-40)*1.5)
                - unionFees;
        }
        else {
            return super.computePay(hours) - unionFees;
        }
    }
}
```

Payroll.java:

```
/**
 * This driver class is used to run the RestaurantWorker, Server and Chef
 * classes.
 * @author Zohaib Khan 3740572
 */

import java.text.NumberFormat;

public class Payroll {

    public static void main (String[] args) {

        NumberFormat formatter = NumberFormat.getCurrencyInstance();

        RestaurantWorker rw1 = new RestaurantWorker ("Jeffery Kingston",
        "Busser", 13.75);

        RestaurantWorker rw2 = new RestaurantWorker ("Fiona Grant-Long",
        "Busser", 13.95);

        RestaurantWorker rw3 = new RestaurantWorker ("Roger Haines",
        "Dishwasher", 14.50);

        Server s1 = new Server ("Jonathan Gorman", "Server", 14.50, 0.12);
        Server s2 = new Server ("Tanya Masterson", "Server", 13.75, 0.10);
        Server s3 = new Server ("Brittany Phillips", "Server", 15.50, 0.15);

        Chef c1 = new Chef ("Laura Cox", "Executive Chef", 26.50, 67.00);
        Chef c2 = new Chef ("Thomas McLean", "Sous Chef", 21.50, 43.50);
        Chef c3 = new Chef ("Nathaniel Paul", "Sous Chef", 22.75, 43.50);
        Chef c4 = new Chef ("Eleanor Ryan", "Pastry Chef", 20.00, 39.00);

        System.out.println("Worker's Name & Job Title \t"
            + "Rate of Pay \t" + "Pay this week");

        System.out.println("===== \t"
            + "===== \t" + "=====");

        System.out.println(rw1.getName() + " ("
            + rw1.getJobTitle() + ")\t"
            + formatter.format(rw1.getHourlyRate())
            + " /hr\t"
            + formatter.format(rw1.computePay(18)));
    }
}
```

```

System.out.println(rw2.getName() + " ("
    + rw2.getJobTitle() + ")\t"
    + formatter.format(rw2.getHourlyRate())
    + " /hr\t"
    + formatter.format(rw2.computePay(14.5)));

System.out.println(rw3.getName() + " ("
    + rw3.getJobTitle() + ")\t"
    + formatter.format(rw3.getHourlyRate())
    + " /hr\t"
    + formatter.format(rw3.computePay(42)));

System.out.println(s1.getName() + " ("
    + s1.getJobTitle() + ")\t"
    + formatter.format(s1.getHourlyRate()) + " /hr\t"
    + formatter.format(s1.computePay(46.5)));

System.out.println(s2.getName() + " ("
    + s2.getJobTitle() + ")\t"
    + formatter.format(s2.getHourlyRate()) + " /hr\t"
    + formatter.format(s2.computePay(18)));

System.out.println(s3.getName() + " ("
    + s3.getJobTitle() + ")\t"
    + formatter.format(s3.getHourlyRate()) + " /hr\t"
    + formatter.format(s3.computePay(38.5)));

System.out.println(c1.getName() + " ("
    + c1.getJobTitle() + ")\t"
    + formatter.format(c1.getHourlyRate()) + " /hr\t"
    + formatter.format(c1.computePay(46.5)));

System.out.println(c2.getName() + " ("
    + c2.getJobTitle() + ")\t"
    + formatter.format(c2.getHourlyRate()) + " /hr\t"
    + formatter.format(c2.computePay(18)));

System.out.println(c3.getName() + " ("
    + c3.getJobTitle() + ")\t"
    + formatter.format(c3.getHourlyRate()) + " /hr\t"
    + formatter.format(c3.computePay(26)));

System.out.println(c4.getName() + " ("
    + c4.getJobTitle() + ")\t"
    + formatter.format(c4.getHourlyRate()) + " /hr\t"
    + formatter.format(c4.computePay(42)));

}

}

```

```
zohaib@Zohaibs-MacBook-Pro lab5 % javac Payroll.java
zohaib@Zohaibs-MacBook-Pro lab5 % java Payroll
Worker's Name & Job Title      Rate of Pay      Pay this week
=====
Jeffery Kingston (Busser)      $13.75 /hr       $247.50
Fiona Grant-Long (Busser)      $13.95 /hr       $202.27
Roger Haines (Dishwasher)      $14.50 /hr       $609.00
Jonathan Gorman (Server)      $14.50 /hr       $679.77
Tanya Masterson (Server)      $13.75 /hr       $249.30
Brittany Phillips (Server)     $15.50 /hr       $602.45
Laura Cox (Executive Chef)     $26.50 /hr       $1,251.38
Thomas McLean (Sous Chef)      $21.50 /hr       $343.50
Nathaniel Paul (Sous Chef)     $22.75 /hr       $548.00
Eleanor Ryan (Pastry Chef)     $20.00 /hr       $821.00
zohaib@Zohaibs-MacBook-Pro lab5 %
```