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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)));

}

}

