**TITLE PAGE**

**Course:** CS1073

**Section:** FR03B

**Lab number:** 3

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Bunk.java:

/\*\*

Class representing a bed at a sleep-away camp

for children and teens.

@author Zohaib Khan 3740572

\*/

public class Bunk {

/\*\*

Name of the building.

\*/

private String name;

/\*\*

The bed number.

\*/

private int num;

/\*\*

Cost of the bunk per week.

\*/

private double cost;

/\*\*

Constructor method to initiatize the instance variables.

@param nameIn the name of the building.

@param numIn the bed number.

@param costIn the cost of the bunk per week.

\*/

public Bunk (String nameIn, int numIn, double costIn) {

name = nameIn;

num = numIn;

cost = costIn;

}

/\*\*

Gets the name of the building.

@return the name of the building.

\*/

public String getName () {

return name;

}

/\*\*

Gets the bed number.

@return the bed number.

\*/

public int getNum () {

return num;

}

/\*\*

Gets the cost of the bunk per week.

@return the cost of the bunk per week.

\*/

public double getCost () {

return cost;

}

} //end class

Camper.java:

/\*\*

Class to represent a child or teen

who is staying at the sleep-away camp.

@author Zohaib Khan 3740572

\*/

public class Camper {

/\*\*

The full name of the child or teen.

\*/

private String name;

/\*\*

The amount to be paid per week for the program.

\*/

private double campFees;

/\*\*

The amount to be paid per week for extra activities.

\*/

private double excursionFees;

/\*\*

The amount of funding the camper receives each week.

\*/

private double fundingSupport;

/\*\*

The bunk where the camper is staying.

\*/

private Bunk bunk;

/\*\*

The constructor method to initialize the instance variables.

@param nameIn the name of the camper.

@param campFeesIn the amount to be paid per week for the program.

@param excursionFeesIn the amount to be paid per week for extra

activities.

@param fundingSupportIn the amount of funding the camper receives

each week.

@param bunkIn the bunk where the camper is staying.

\*/

public Camper (String nameIn, double campFeesIn, double

excursionFeesIn, double fundingSupportIn, Bunk bunkIn) {

name = nameIn;

campFees = campFeesIn;

excursionFees = excursionFeesIn;

fundingSupport = fundingSupportIn;

bunk = bunkIn;

}

/\*\*

The constructor method to initialize the instance variables.

@param nameIn the name of the camper.

@param campFeesIn the amount to be paid per week for the program.

@param excursionFeesIn the amount to be paid per week for extra

activities.

@param fundingSupportIn the amount of funding the camper receives

each week.

@param bunkNameIn the name of the building where the camper is

staying.

@param numIn the bed number where the camper is staying.

@param costIn the cost of the bunk where the camper is staying.

\*/

public Camper (String nameIn, double campFeesIn, double

excursionFeesIn, double fundingSupportIn, String bunkNameIn, int

numIn, double costIn) {

name = nameIn;

campFees = campFeesIn;

excursionFees = excursionFeesIn;

fundingSupport = fundingSupportIn;

bunk = new Bunk (bunkNameIn, numIn, costIn);

}

/\*\*

Sets the name of the child or teen.

@param nameIn the name of the child or teen.

\*/

public void setName (String nameIn) {

name = nameIn;

}

/\*\*

Sets the amount to be paid per week for the program.

@param campFeesIn the amount to be paid per week for the program.

\*/

public void setCampFees (double campFeesIn) {

campFees = campFeesIn;

}

/\*\*

Sets the amount to be paid per week for extra activites.

@param excursionFeesIn the amount to be paid per week for extra

activities.

\*/

public void setExcursionFees (double excursionFeesIn) {

excursionFees = excursionFeesIn;

}

/\*\*

Sets the amount of funding the camper receives per week.

@param fundingSupportIn the amount of funding the camper receives

per week.

\*/

public void setFundingSupport (double fundingSupportIn) {

fundingSupport = fundingSupportIn;

}

/\*\*

Sets the bunk where the camper is staying.

@param bunkIn the bunk where the camper is staying.

\*/

public void setBunk (Bunk bunkIn) {

bunk = bunkIn;

}

/\*\*

Sets the bunk where the camper is staying.

@param nameIn the name of the building where the camper is

staying.

@param numIn the bed number where the camper is staying.

@param costIn the cost of the bunk where the camper is staying.

\*/

public void setBunk (String nameIn, int numIn, double costIn) {

bunk = new Bunk (nameIn, numIn, costIn);

}

/\*\*

This method returns the total fees that must

be paid to the camp this week.

@return the total fees that must be paid to the camp this week.

\*/

public double getTotalWeeklyFeesOwing () {

return campFees + excursionFees + bunk.getCost() –

fundingSupport;

}

/\*\*

This method returns a textual string that includes

the camper's name and bunk location.

@return the textual string that includes the

camper's name and bunk location.

\*/

public String getOnSiteMailLabel () {

return name + "\n"

+ bunk.getName() + ", bed " + bunk.getNum();

}

} //end class

Lab3TestDriver.java:

/\*\*

This is a driver program for Camper class and Bunk class.

@author Zohaib Khan 3740572

\*/

public class Lab3TestDriver {

public static void main (String[] args) {

Camper obj1 =

new Camper ("Anna Marie Sullivan", 250.00, 148.30, 150.00,

"Chickadee Lodge", 7, 155.75);

Camper obj2 =

new Camper ("Porter Smith", 340.00, 277.88, 0, "Moose Hall", 16,

131.25);

Camper obj3 =

new Camper ("Katharine Doucet", 565.30, 0, 175.00, "Brookside

Cabin", 11, 385.00);

obj1.setExcursionFees (178.80);

obj2.setBunk ("Wolf Lodge", 9, 147.00);

obj3.setCampFees (525.00);

System.out.println("Mail Label 1: \n"

+ obj1.getOnSiteMailLabel() + "\n"

+ "Total weekly fees owing: " + obj1.getTotalWeeklyFeesOwing()

+ "\n");

System.out.println("Mail Label 2: \n"

+ obj2.getOnSiteMailLabel() + "\n"

+ "Total weekly fees owing: " + obj2.getTotalWeeklyFeesOwing()

+ "\n");

System.out.println("Mail Label 3: \n"

+ obj3.getOnSiteMailLabel() + "\n"

+ "Total weekly fees owing: " + obj3.getTotalWeeklyFeesOwing()

+ "\n");

}

} //end class

Lab3Output.txt:

Mail Label 1:

Anna Marie Sullivan

Chickadee Lodge, bed 7

Total weekly fees owing: 434.54999999999995

Mail Label 2:

Porter Smith

Wolf Lodge, bed 9

Total weekly fees owing: 764.88

Mail Label 3:

Katharine Doucet

Brookside Cabin, bed 11

Total weekly fees owing: 735.0