

# 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 initiate 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