

Isaac Ray Shoebottom

CS 1073 (FR02A)

Assignment 2

3429069

Section A

Source Code (Bunk.java):

```
/**
 *
 * @author Isaac Shoebottom (3429069)
 */

public class Bunk {
    private String cabinName;
    private long bedNumber;
    private double bedCost;

    /**
     * Bunk Object, constructor has 3 variables
     * @param cabinNameIn The cabin name constructor parameter
     * @param bedNumberIn The bed number constructor parameter
     * @param bedCostIn The bed cost constructor parameter
     */
    public Bunk(String cabinNameIn, long bedNumberIn, double
bedCostIn) {
        this.cabinName = cabinNameIn;
        this.bedNumber = bedNumberIn;
        this.bedCost = bedCostIn;
    }

    /**
     * Gets the cost of the bed for the bunk
     * @return (double) The cost of the bed
     */
    public double getBedCost() {
        return bedCost;
    }
}
```

```
/**
 * Gets the bed number of the bed
 * @return (long) The number of the bed
 */
public long getBedNumber() {
    return bedNumber;
}

/**
 * Gets the cabin name
 * @return (String) The cabin's name
 */
public String getCabinName() {
    return cabinName;
}
}
```

Section B

Source Code (Camper.java):

```
/**
 *
 * @author Isaac Shoebottom (3429069)
 **/

public class Camper {
    private String camperName;
    private double campFees;
    private double excursionFees;
    private double fundingSupport;
    private Bunk bunk;

    /**
     * Camper object, constructor has 5 parameters
     * @param camperNameIn The camper's name
     * @param campFeesIn The camper's fees
     * @param excursionFeesIn The camper's external excursion fees
     * @param fundingSupportIn The camper's funding
     * @param bunkIn The camper's bunk they are staying in
     */
    public Camper(String camperNameIn, double campFeesIn, double
excursionFeesIn, double fundingSupportIn, Bunk bunkIn) {
        this.camperName = camperNameIn;
        this.campFees = campFeesIn;
        this.excursionFees = excursionFeesIn;
        this.fundingSupport = fundingSupportIn;
        this.bunk = bunkIn;
    }
}
```

```
/**
 * Method to set the camper's name
 * @param camperName The camper's name
 */
public void setCamperName(String camperName) {
    this.camperName = camperName;
}

/**
 * Method to set the camper's fees
 * @param campFees The fees the camper owes
 */
public void setCampFees(double campFees) {
    this.campFees = campFees;
}

/**
 * Method to set the excursion fees
 * @param excursionFees The camper's excursion fees
 */
public void setExcursionFees(double excursionFees) {
    this.excursionFees = excursionFees;
}

/**
 * Method to set the funding support
 * @param fundingSupport The camper's funding they have received
 */
public void setFundingSupport(double fundingSupport) {
```

```

        this.fundingSupport = fundingSupport;
    }

    /**
     * Method to set the bunk the camper is staying in
     * @param bunkIn The bunk the camper is staying in
     */
    public void setBunk(Bunk bunkIn) {
        this.bunk = bunkIn;
    }

    /**
     * Method to get the combined fees of all the campers
     * @return (double) The total amount owed which is all the costs
    incurred minus funding
     */
    public double getTotalWeeklyFeesOwing() {
        return ((this.campFees + this.excursionFees +
    bunk.getBedCost()) - this.fundingSupport);
    }

    /**
     * Method to get a mailing label for a camper
     * @return (String) The campers name and bed number in the format
    of a combined string
     */
    public String getOnSiteMailLabel() {
        return (this.camperName + "\n" + bunk.getCabinName() + ", bed
    " + bunk.getBedNumber());
    }
}

```

Section C

Source Code (As4TestDriver.java)

```
/**
 *
 * @author Isaac Shoebottom (3429069)
 **/

public class As4TestDriver {

    public static void main(String[] args) {

        Bunk bunk1 = new Bunk("Chickadee Lodge", 7, 155.75);

        Camper camper1 = new Camper("Anna Marie Sullivan", 250.00,
148.30, 150.00, bunk1);

        Bunk bunk2 = new Bunk("Moose Hall", 16, 131.25);

        Camper camper2 = new Camper("Porter Smith", 340.00, 277.88,
0.00, bunk2);

        Bunk bunk3 = new Bunk("Brookside Cabin", 11, 385.00);

        Camper camper3 = new Camper("Kathrine Doucet", 565.30, 0.00,
175.00, bunk3);

        camper1.setExcursionFees(178.80);

        Bunk bunk4 = new Bunk("Wolf Lodge", 9, 147.00);

        camper2.setBunk(bunk4);

        camper3.setCampFees(525.00);

        System.out.println(camper1.getOnSiteMailLabel() + "\nOwed
Fees: " + camper1.getTotalWeeklyFeesOwing() + "$");

        System.out.println();

        System.out.println(camper2.getOnSiteMailLabel() + "\nOwed
Fees: " + camper2.getTotalWeeklyFeesOwing() + "$");
```

```
        System.out.println();  
        System.out.println(camper3.getOnSiteMailLabel() + "\nOwed  
Fees: " + camper3.getTotalWeeklyFeesOwing() + "$");  
    }  
}
```


Section D

Output:

Anna Marie Sullivan

Chickadee Lodge, bed 7

Owed Fees: 434.54999999999995\$

Porter Smith

Wolf Lodge, bed 9

Owed Fees: 764.88\$

Kathrine Doucet

Brookside Cabin, bed 11

Owed Fees: 735.0\$