

Lunch Order ReflectionLogs -

I declared some integers and double values in the constructor file where they will be used for future reference.

```
private double numHam;  
private double numSal;  
private double numFre;  
private double numSod;  
  
private double Fat;  
private double Carbs;  
private double Fiber;  
  
private double ham = 1.85;  
private double salad = 2.00;  
private double fries = 1.30;  
private double soda = 0.95;
```

After that, I made methods for each type of food, where the user will input (in the client code) the number of each kind they ordered, whose values will be used here. Alongside that, there will be pre-declared values for the amount of fat, carbs, and fibre in each food item.

```
// All the methods for ham  
public void Ham(double i, double f, double c, double fi) {  
    numHam = i;  
    Fat = f;  
    Carbs = c;  
    Fiber = fi; }  
  
public double HamFat() {  
    return Fat; }  
public double HamCarb() {  
    return Carbs; }  
public double HamFibre() {  
    return Fiber; }
```

The code is essentially the same for each food item, the only thing which changes is “Ham” to “Sal” to “Fri” to “Sod” (Salad, Fries, Soda)

Lastly, the total() method calculates the overall cost of the order, based on the cost of a single item multiplied by the number of items ordered by the user. It then returns the value if the method is called.

```
/*
 * Calculates and returns total cost of order.
 * pre: none
 * post: Total has been returned.
 */
public double Total() {
    double total = numHam*ham + numSal*salad + numFre*fries + numSod*soda;
    return(total);
}
```

In the client code, I create the object Food based on the LunchOrder() class. The program then prints out some statements, some of which will prompt the user for the number of items they would like to order. In the end it will display the total cost of their order.

```
public static void main(String[] args) {

    // Creating the object
    LunchOrder Food = new LunchOrder();
    Scanner Input = new Scanner(System.in);
    System.out.println("Welcome to Lunch Order");

    // Asks user for a prompt for how many burgers they would like
    // Then it displays the nutritional info after feeding all the values into Food.Ham()
    System.out.print("Enter the number of hamburgers - ");
    double numHam = Input.nextDouble();
    Food.Ham(numHam, 9.0, 33.0, 1.0);
    System.out.print("Each hamburger has " + Food.HamFat() + "g of fat, ");
    System.out.print(Food.HamCarb() + "g of carbs, and " + Food.HamFibre() + " of fiber \n");
    System.out.println("");

    // Similar thing here, continuing for each type of food item
    System.out.print("Enter the number of salads - ");
    double numSal = Input.nextDouble();
    Food.Salad(numSal, 1.0, 11.0, 5.0);
    System.out.print("Each salad has " + Food.SalFat() + "g of fat, ");
    System.out.print(Food.SalCarb() + "g of carbs, and " + Food.SalFibre() + " of fiber \n");
    System.out.println("");

    System.out.print("Enter the number of french fries - ");
    double numFre = Input.nextDouble();
    Food.Fries(numFre, 11.0, 36.0, 5.0);
    System.out.print("Each pack of french fries has " + Food.FriFat() + "g of fat, ");
    System.out.print(Food.FriCarb() + "g of carbs, and " + Food.FriFibre() + " of fiber \n");
    System.out.println("");

    System.out.print("Enter the number of sodas - ");
    double numSod = Input.nextDouble();
    Food.Soda(numSod, 0.0, 38.0, 0.0);
    System.out.print("Each soda has " + Food.SodFat() + "g of fat, ");
    System.out.print(Food.SodCarb() + "g of carbs, and " + Food.SodFibre() + " of fiber \n");
    System.out.println("");

    // Lastly it just prints out the total for the user's order
    System.out.println("Your order comes to $" + Food.Total());
}
```