

How has your program changed from planning to coding to now? Please explain?

I began by creating a class Food to use to create objects in my main method. This will be used to store values of the foods in the program.

```
//Food object to manage values in LunchOrder
public class Food {
```

Initialized private variables in Food class; to be used only inside class.

```
//Initialize private variables
private double price, fat, carbs, fiber;
```

Created a constructor to set all default value amounts as 0.

```
public Food () { //default constructor
//Initialize all variables as 0
    price = 0;
    fat = 0;
    carbs = 0;
    fiber = 0;
```

Created a constructor overloader to create a object with existing parameters. Sets all variables equal to parameters upon creation.

```
public Food (double newPrice, double newFat, double newCarbs, double newFiber) { //default constructor
//overload the default constructor method
    price = newPrice;
    fat = newFat;
    carbs = newCarbs;
    fiber = newFiber;
}
```

Created 4 methods to return the value of each correspondent unit back to the main method. Methods return a double value.

```
//Accesser methods:
public double getPrice() { //Return price of food
    return price;
}

public double getFat() { //return fat content of food
    return fat;
}

public double getCarbs() { //return carb content of food
    return carbs;
}

public double getFiber() { //return fiber content of food
    return fiber;
}
```

In the main method, I began my importing scanner to prepare for user input, and creating decimal formatting to shorten longer decimals to 2 decimal places,

```
//Preparing for user input + format decimal variables
Scanner input = new Scanner(System.in);
DecimalFormat shorten = new DecimalFormat("#00.00");
```

Created 4 food objects "hamburger", "salad", "fries" and "soda" to store values into. Placed parameters in accordance to the price + nutritional values of each food.

```
//create Food objects ( With price, fat, carbs, and fiber parameters)
Food hamburger = new Food(1.85, 9, 33, 1); //create hamburger object
Food salad = new Food(2, 1, 11, 5); //create salad object
Food fries = new Food(1.3, 11, 36, 4); //create fries object
Food soda = new Food(0.95, 0, 38, 0); //create soda object
```

Initialized variables used in main method. (food types: int (whole numbers), orderTotal: double (price))

```
//Initialize variables
int hamburgerNum, saladNum, friesNum, sodaNum;
double orderTotal;
```

For each of the 4 food objects:

- Prompted user to enter the amount of the correspondent food they wanted + recorded user input
- Displayed the values of fats, carbs, and fibers stored inside the object back to the user

```
//For each of the following 4 foods:
// -- Prompt user for choice and record user input for each type of food
// -- Display the nutritional value of each food

System.out.print("Please enter the amount of hamburgers ");
hamburgerNum = input.nextInt();

System.out.println(" ");

System.out.println("Each hamburger has: ");
System.out.println(hamburger.getFat() + "g of fat");
System.out.println(hamburger.getCarbs() + "g of carbs");
System.out.println(hamburger.getFiber() + "g of fiber");

System.out.println(" ");

System.out.print("Please enter the amount of salad ");
saladNum = input.nextInt();

System.out.println(" ");

System.out.println("Each salad has: ");
System.out.println(salad.getFat() + "g of fat");
System.out.println(salad.getCarbs() + "g of carbs");
System.out.println(salad.getFiber() + "g of fiber");

System.out.println(" ");

System.out.print("Please enter the amount of fries ");
friesNum = input.nextInt();

System.out.println(" ");

System.out.println("Each fries has: ");
System.out.println(fries.getFat() + "g of fat");
System.out.println(fries.getCarbs() + "g of carbs");
System.out.println(fries.getFiber() + "g of fiber");

System.out.println(" ");

System.out.print("Please enter the amount of soda ");
sodaNum = input.nextInt();

System.out.println(" ");

System.out.println("Each soda has: ");
System.out.println(soda.getFat() + "g of fat");
System.out.println(soda.getCarbs() + "g of carbs");
System.out.println(soda.getFiber() + "g of fiber");
```

Calculated the total dollar value of each object's price value multiplied by the amount of each correspondent food.
Set result as variable orderTotal.

```
//Calculate total price of order
orderTotal = (hamburgerNum * hamburger.getPrice()) + (saladNum * salad.getPrice())
             + (friesNum * fries.getPrice()) +(sodaNum * soda.getPrice());
```

Display the dollar amount (formatted to 2 decimal places) of orderTotal to user.

```
//Format decimals and display the total amount if the order to the customer
System.out.println("Your order comes out to: $" + shorten.format(orderTotal));
```