

Credit

3120

Assignment

E3LunchOrder

Create a LunchOrder application that prompts the user for the number of hamburgers, salads, french fries, and sodas and then displays the total for the order.

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

Creating constructors and overloaded constructor

```
1  package mastery;
2
3  public class E3LunchOrder {
4
5      private int hamburgers;
6      private int salads;
7      private int fries;
8      private int sodas;
9
10
11     public E3LunchOrder(){
12         hamburgers = 0;
13         salads = 0;
14         fries = 0;
15         sodas = 0;
16     }
17
18     public E3LunchOrder(int b, int s, int f, int so){
19         hamburgers = b;
20         salads = s;
21         fries = f;
22         sodas = so;
23     }
24
25
26
27
28
29
30
```

Switching it up a little

```
1 package mastery;
2
3 public class E3LunchOrder {
4
5     private int hamburgers;
6     private int salads;
7     private int fries;
8     private int sodas;
9     private double price;
10    private int fat;
11    private int carb;
12    private int fiber;
13
14
15    public E3LunchOrder(){
16        hamburgers = 0;
17        salads = 0;
18        fries = 0;
19        sodas = 0;
20    }
21
22    public E3LunchOrder(double p, int fa, int c, int fi, int b, int sa, int fr, int so){
23        price = p;
24        fat = fa;
25        carb = c;
26        fiber = fi;
27        hamburgers = b;
28        salads = sa;
29        fries = fr;
30        sodas = so;
31    }
32
33 }
```

```

1 package mastery;
2
3 public class E3LunchOrder {
4
5     private int hamburgers; //creates private variables
6     private int salads;
7     private int fries;
8     private int sodas;
9     private double price;
10    private int fat;
11    private int carb;
12    private int fiber;
13
14
15    public E3LunchOrder(){ //makes the starting number 0
16        hamburgers = 0;
17        salads = 0;
18        fries = 0;
19        sodas = 0;
20    }
21
22    public E3LunchOrder(double p, int fa, int c, int fi){ //to have multiple prices and values for each food type
23        price = p;
24        fat = fa;
25        carb = c;
26        fiber = fi;
27    }
28
29
30    public double showPrice() { //shows the price of which ever food type
31
32        return(price);
33    }
34
35
36
37
38    public double totalPrice(int burgers, int salads, int fries, int sodas, double burgersprice, double saladsprice, double friesprice, double sodasprice){
39        double totalprice = (burgers * burgersprice) + (salads * saladsprice) + (fries * friesprice) + (sodas * sodasprice);
40
41        return (totalprice);
42    }

```

Pretty much redone it

Creating tester

```

1 package mastery;
2
3 public class E3LunchOrderTest {
4     public static void main(String[] args){
5
6         E3LunchOrder hamburger = new E3LunchOrder(1.85, 9, 33, 1);
7         E3LunchOrder salad = new E3LunchOrder(2.00, 1, 11, 5);
8         E3LunchOrder fries = new E3LunchOrder(1.30, 11, 36, 4);
9         E3LunchOrder soda = new E3LunchOrder(0.95, 0, 38, 0);
10
11
12
13

```

```

20     }
21
22     public E3LunchOrder(double p, int fa, int c, int fi){ //to have multiple prices and values for each food type
23         price = p;
24         fat = fa;
25         carb = c;
26         fiber = fi;
27     }
28
29
30     public double showPrice() { //shows the price of which ever food type
31
32         return(price);
33     }
34
35     public double showFat() { //shows the fat of which ever food type
36
37         return(fat);
38     }
39
40     public double showCarb() { //shows the carbs of which ever food type
41
42         return(carb);
43     }
44
45     public double showFiber() { //shows the fiber of which ever food type
46
47         return(fiber);
48     }
49
50
51
52

```

Methods to show the specific values

Adding stuff to tester

```

4
5 import java.util.Scanner; //imports scanner
6 public class E3LunchOrderTest {
7     public static void main(String[] args){
8
9         E3LunchOrder hamburger = new E3LunchOrder(1.85, 9, 33, 1); //creates the objects of foodtypes with different prices and foodvalues
10        E3LunchOrder salad = new E3LunchOrder(2.00, 1, 11, 5);
11        E3LunchOrder fries = new E3LunchOrder(1.30, 11, 36, 4);
12        E3LunchOrder soda = new E3LunchOrder(0.95, 0, 38, 0);
13
14        //defining variables
15        int selection;
16
17        //creates scanner
18        Scanner scanner = new Scanner(System.in);
19
20
21
22        while (true) { //loop incase user enters wrong thing
23            try {
24                System.out.println("Enter number of hamburgers.");
25                String strselection = scanner.nextLine();
26
27                try { //so the code doesnt just break and end
28                    selection = Integer.parseInt(strselection);
29                } catch (Exception e) { //catches an error
30                    System.out.println("Something went wrong. Please try again."); //tells user to try again
31                    System.out.println(""); //creates white space
32                    continue; //restarts loop
33                }
34                System.out.println("Each hamburger has " + hamburger.showPrice());
35
36
37            } catch (Exception e) { //catches an error
38                System.out.println("Something went wrong. Please try again."); //tells user to try again
39                System.out.println(""); //creates white space
40                continue; //restarts loop
41            }
42
43
44
45
46
47
48
49
50

```

First loop of code finished

```

Scanner scanner = new Scanner(System.in);

while (true) { //loop incase user enters wrong thing
    try {
        System.out.println("Enter number of hamburgers.");
        String strselection = scanner.nextLine(); //accepts string from user

        try { //so the code doesnt just break and end
            selection = Integer.parseInt(strselection);
        } catch (Exception e) { //catches an error
            System.out.println("Something went wrong. Please try again."); //tells user to try again
            System.out.println(""); //creates white space
            continue; //restarts loop
        }
        System.out.println("Each hamburger has " + hamburger.showFat() + "g of fat, " + hamburger.showCarb() + "g of carbs, and " + hamburger.showFiber() + "g of fiber.");
        Qburgers = selection; //gives value to the amount of burgers
        break; //breaks loop
    } catch (Exception e) { //catches an error
        System.out.println("Something went wrong. Please try again."); //tells user to try again
        System.out.println(""); //creates white space
        continue; //restarts loop
    }
}

```

Duplicated it 4 times with different object names

```

        System.out.println(""); //creates white space
        continue; //restarts loop
    }
}

while (true) { //loop incase user enters wrong thing
    try {
        System.out.println("Enter number of salads.");
        String strselection = scanner.nextLine(); //accepts string from user

        try { //so the code doesnt just break and end
            selection = Integer.parseInt(strselection);
        } catch (Exception e) { //catches an error
            System.out.println("Something went wrong. Please try again."); //tells user to try again
            System.out.println(""); //creates white space
            continue; //restarts loop
        }
        System.out.println("Each salad has " + salad.showFat() + "g of fat, " + salad.showCarb() + "g of carbs, and " + salad.showFiber() + "g of fiber.");
        Qsalads = selection; //gives value to the amount of salads
        break; //breaks loop
    } catch (Exception e) { //catches an error
        System.out.println("Something went wrong. Please try again."); //tells user to try again
        System.out.println(""); //creates white space
        continue; //restarts loop
    }
}

while (true) { //loop incase user enters wrong thing
    try {
        System.out.println("Enter number of fries.");
        String strselection = scanner.nextLine(); //accepts string from user

        try { //so the code doesnt just break and end
            selection = Integer.parseInt(strselection);
        } catch (Exception e) { //catches an error

```

```

while (true) { //loop incase user enters wrong thing
    try {
        System.out.println("Enter number of fries.");
        String strselection = scanner.nextLine(); //accepts string from user

        try { //so the code doesn't just break and end
            selection = Integer.parseInt(strselection);
        } catch (Exception e) { //catches an error
            System.out.println("Something went wrong. Please try again."); //tells user to try again
            System.out.println(""); //creates white space
            continue; //restarts loop
        }

        System.out.println("Each fries has " + fries.showFat() + "g of fat, " + fries.showCarb() + "g of carbs, and " + fries.showFiber() + "g of fiber.");
        Qfries = selection; //gives value to the amount of fries
        break; //breaks loop

    } catch (Exception e) { //catches an error
        System.out.println("Something went wrong. Please try again."); //tells user to try again
        System.out.println(""); //creates white space
        continue; //restarts loop
    }
}

while (true) { //loop incase user enters wrong thing
    try {
        System.out.println("Enter number of soda.");
        String strselection = scanner.nextLine(); //accepts string from user

        try { //so the code doesn't just break and end
            selection = Integer.parseInt(strselection);
        } catch (Exception e) { //catches an error
            System.out.println("Something went wrong. Please try again."); //tells user to try again
            System.out.println(""); //creates white space
            continue; //restarts loop
        }

        System.out.println("Each soda has " + soda.showFat() + "g of fat, " + soda.showCarb() + "g of carbs, and " + soda.showFiber() + "g of fiber.");
        Qsoda = selection; //gives value to the amount of soda
        break; //breaks loop

    } catch (Exception e) { //catches an error
        System.out.println("Something went wrong. Please try again."); //tells user to try again
        System.out.println(""); //creates white space
        continue; //restarts loop
    }
}

double totalCost = spot.totalPrice(Qburgers, Qsalads, Qfries, Qsoda, hamburger.showPrice(), salad.showPrice(), fries.showPrice(), soda.showPrice()); //runs method totalPrice to

```

```

92
93     } catch (Exception e) { //catches an error
94         System.out.println("Something went wrong. Please try again."); //tells user to try again
95         System.out.println(""); //creates white space
96         continue; //restarts loop
97     }
98 }
99
100 while (true) { //loop incase user enters wrong thing
101     try {
102         System.out.println("Enter number of soda.");
103         String strselection = scanner.nextLine(); //accepts string from user
104
105         try { //so the code doesn't just break and end
106             selection = Integer.parseInt(strselection);
107         } catch (Exception e) { //catches an error
108             System.out.println("Something went wrong. Please try again."); //tells user to try again
109             System.out.println(""); //creates white space
110             continue; //restarts loop
111         }
112         System.out.println("Each soda has " + soda.showFat() + "g of fat, " + soda.showCarb() + "g of carbs, and " + soda.showFiber() + "g of fiber.");
113         Qsoda = selection; //gives value to the amount of soda
114         break; //breaks loop
115
116     } catch (Exception e) { //catches an error
117         System.out.println("Something went wrong. Please try again."); //tells user to try again
118         System.out.println(""); //creates white space
119         continue; //restarts loop
120     }
121 }
122
123 double totalCost = spot.totalPrice(Qburgers, Qsalads, Qfries, Qsoda, hamburger.showPrice(), salad.showPrice(), fries.showPrice(), soda.showPrice()); //runs method totalPrice to
124 System.out.println("Your order comes to: $" + totalCost); //prints final cost
125
126
127
128
129
130
131

```

And the final code

Rest of the class file

```

private int fat;
private int carb;
private int fiber;

public E3LunchOrder(){ //makes the starting number 0
    hamburgers = 0;
    salads = 0;
    fries = 0;
    sodas = 0;
}

public E3LunchOrder(double p, int fa, int c, int fi){ //to have multiple prices and values for each food type
    price = p;
    fat = fa;
    carb = c;
    fiber = fi;
}

public double showPrice() { //shows the price of which ever food type
    return(price);
}

public double showFat() { //shows the fat of which ever food type
    return(fat);
}

public double showCarb() { //shows the carb of which ever food type
    return(carb);
}

public double showFiber() { //shows the fiber of which ever food type
    return(fiber);
}

public double totalPrice(int burgers, int salads, int fries, int sodas, double burgersprice, double saladsprice, double friesprice, double sodasprice){
    double totalprice = (burgers * burgersprice) + (salads * saladsprice) + (fries * friesprice) + (sodas * sodasprice);
    return (totalprice);
}

```

Made it to round to nearest hundredth

```

public double totalPrice(int burgers, int salads, int fries, int sodas, double burgersprice, double saladsprice, double friesprice, double sodasprice){
    double totalprice = (burgers * burgersprice) + (salads * saladsprice) + (fries * friesprice) + (sodas * sodasprice);
    String strttotalprice = (dc.format(totalprice)); //rounds to nearest hundredth
    totalprice = Double.parseDouble(strttotalprice); //changes rounded totalprice from string back to double
    return (totalprice); //returns the total price of the order
}

```

Sometimes it gives a long decimal