جروب 12

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Project Task for OOP

1- Your friend wants to open a new restaurant in Cairo but she faced so many problems, one of them is that she wanted to create an application to help her with payment at the cashier counter, so you have agreed to help her and she gave you some tasks to do, You will create a Burger Restaurant Manager that will help calculating the bills for the restaurant.

   A- The first type of sandwiches will be the normal burger sandwich, each sandwich will have its name, type of meat (Beef or Chicken), type of roll bread (white bread or brown bread) and price. This type of sandwiches will also have only four available additions with separate prices like "extra cheese" or "extra tomato". Help her with calculating the total bill.

```
package burgerrestaurantmanager;

public class NormalBurgar {
   private  String name ;
   private  String  type_of_meat ;
   private  String type_of_roll_bread ;
   private  int price = 50;
   private  String addition1 ="extra cheese"  ;
   private  String addition2 ="extra tomato";
   private  String addition3 ="extra juice";
   private  String addition4 ="extra saled";


    public NormalBurgar(String n,String meat,String bread ) {
        if (n =="NormalBurgar")
        this.name=n;
        else
            System.out.println("Cancel Order ,this type of Burger not found");
        if (meat =="chicken" || meat =="beaf")
        this.type_of_meat=meat;
        else
```

```
public NormalBurgar(String n,String meat,String bread ) {
    if (n =="NormalBurgar")
    this.name=n;
    else
        System.out.println("Cancel Order ,this type of Burger not found");
    if (meat =="chicken" || meat =="beaf")
    this.type_of_meat=meat;
    else
        System.out.println("Cancel Order ,this type of meat not found");
    if (bread =="white" || bread =="brown")
    this.type_of_meat=meat;
    else
        System.out.println("Cancel Order ,this type of bread not found");


}

public void setName(String name) {
    this.name = name;
}
```

```
public String getName() {
    return name;
}

public void setType_of_meat(String type_of_meat) {
    if ( type_of_meat=="chicken" || type_of_meat =="beaf")
    this.type_of_meat=type_of_meat;
    else
        System.out.println("Cancel Order ,this type of meat not found");
}

public String getType_of_meat() {
    return type_of_meat;
}

public void setType_of_roll_bread(String type_of_roll_bread) {
   if (type_of_roll_bread=="white" || type_of_roll_bread =="brown")
    this.type_of_meat=type_of_roll_bread;
    else
        System.out.println("Cancel Order ,this type of bread not found");
}
```

```
54
55      public String getType_of_roll_bread() {
56          return type_of_roll_bread;
57      }
58
59      public void setAddition1(String addition1) {
60          this.addition1 = addition1;
61      }
62
63      public void setAddition2(String addition2) {
64          this.addition2 = addition2;
65      }
66
67      private void setAddition3(String addition3) {
68          this.addition3 = addition3;
69      }
70
71      private void setAddition4(String addition4) {
72          this.addition4 = addition4;
73      }
74
75      public String getAddition1() {
```

```
private void setAddition4(String addition4) {
    this.addition4 = addition4;
}

public String getAddition1() {
    return addition1;
}

public String getAddition2() {
    return addition2;
}

public String getAddition3() {
    return addition3;
}

public String getAddition4() {
    return addition4;
}
```

```
    public void setAddition(String add) {
        if (this.addition1 == add )
            this.price+=5;
        else if (this.addition2 == add)
            this.price +=10;
        else if (this.addition3 == add)
            this.price +=8;
        else if (this.addition4 == add)
            this.price +=12;
        else
             System.out.println("this type of Addition not found");

    }



    public void setPrice(int price) {
         this.price = price;
    }
```

```
97      public int getPrice() {
98          return price;
99      }
00
01
02      public static void main(String[] args) {
03           NormalBurgar normal = new NormalBurgar("NormalBurgar","beaf","white");
04           normal.setAddition("extra cheese");
05           normal.setAddition("extra saled");
06           normal.setAddition("extra tomato");
07           normal.setAddition("extra juice");
08          System.out.println(normal.getPrice());
09
10      }
11
12  }
13
```

```
rtput - BurgerRestaurantManager (run)
run:
85
BUILD SUCCESSFUL (total time: 0 seconds)
```

B- The second type of sandwiches will be "Healthy Burger" and it is exactly the same except for the roll type bread will be only "brown" and also there will be only two additions for this kind of sandwich.

```java
package burgerrestaurantmanager;

public class HealthyBurger extends NormalBurgar{
    private String H_B_Addition1 = "snacks" ;
    private String H_B_Addition2 ="egg plant";


    public HealthyBurger(String meat) {
        super("HealthyBurger",meat,"brown");
    }

    @Override
    public void setAddition(String add) {
       if (this.H_B_Addition1 == add )
           this.setPrice(this.getPrice()+5);
       else if (this.H_B_Addition2 == add)
           this.setPrice(this.getPrice()+7);
       else
            System.out.println("this type of Addition not found");
    }
    public static void main(String[] args) {
```

```java
    @Override
    public void setAddition(String add) {
       if (this.H_B_Addition1 == add )
           this.setPrice(this.getPrice()+5);
       else if (this.H_B_Addition2 == add)
           this.setPrice(this.getPrice()+7);
       else
            System.out.println("this type of Addition not found");
    }
    public static void main(String[] args) {
        HealthyBurger H = new HealthyBurger("chicken");
        H.setAddition("snacks");
        H.setAddition("egg plant");
        System.out.println(H.getPrice());
    }
    }
```

```
rt - BurgerRestaurantManager (run)
run:
62
BUILD SUCCESSFUL (total time: 0 seconds)
```

C- The Third type of sandwiches will be "Deluxe Burger", this type will only have one white roll type bread, beef meat and there are two constant additions which are chips and a drink and the total price for this meal is L.E 60.

*Consider using the appropriate access modifiers and be aware that this task is based on Inheritance and using super method so be sure that you use them in the task.
*You can answer either in Arabic or English.

```
3
4   public class DeluxeBurger extends NormalBurgar{
5
6       public DeluxeBurger() {
7           super("DeluxeBurger", "beaf","white");
            this.setPrice(60);
            this.setAddition1("chips");
            this.setAddition2("drink");
1
2       }
```

```
13      @Override
        public void setAddition(String add) {
            if (this.getAddition1() == add )
16              this.setPrice(this.getPrice());
            else if (this.getAddition2() == add)
18              this.setPrice(this.getPrice());
19          else
20              System.out.println("this type of Addition not found");
21      }
22
23      public static void main(String[] args) {
24          DeluxeBurger D = new DeluxeBurger();
25          D.setAddition("chips");
26          D.setAddition("drink");
27          System.out.println(D.getPrice());
28
29      }
```

```
Output - BurgerRestaurantManager (run)
run:
60
BUILD SUCCESSFUL (total time: 0 seconds)
```