

LAB PROJECT

- 1-Haneen Ahmed Awad Mohamed Ali 412124
- 2- Eman Negm Gabe Negm 412087
- 3-Yasmeen Morad Abdelwahed 41327
- 4-Habiba Gamal Abdelnaby 412119
- 5-Kholod Ahmed Saad 412127
- 6-Doaa Mustafa Ali 412134
- 7-Eman Ramadan Ibrahim Ali 412077
- 8-Eman Mustafa Amin Muhammed 412086
- 9-Halima Basheer Elsheikh 412122
- 10 – Aya Ahmed Elsayed AbdelMaksod 412089

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.

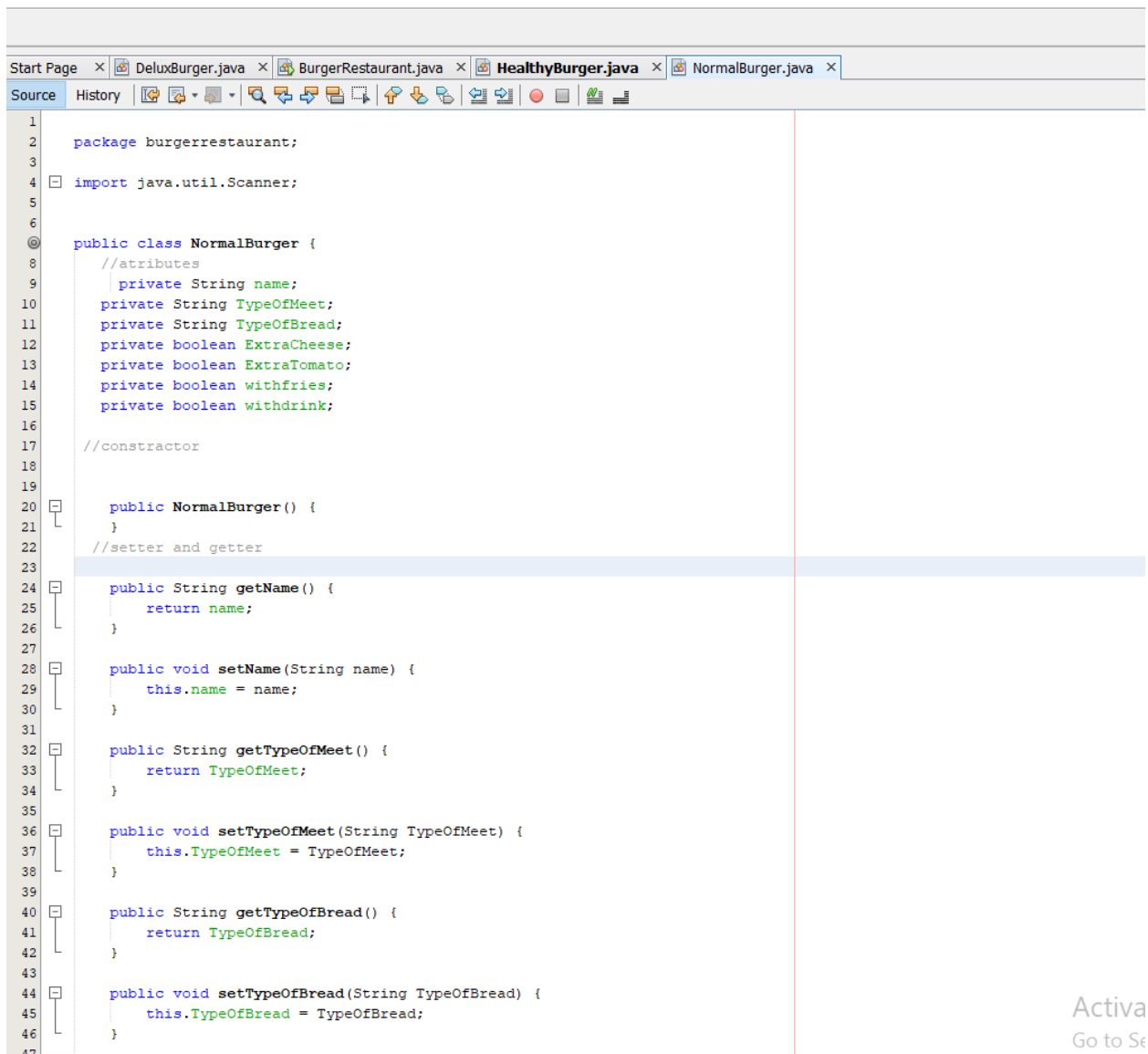
A- The first type of sandwiches will be the normal burger sandwich, each sandwich will have its name, type of meat (Beef or Chicken), type of roll bread (white bread or brown bread) and price. This type of sandwiches will also have only four available additions with separate prices like "extra cheese"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

Activate Windows
Go to Settings to activate Windows

1-Main Method :

```
Start Page x DeluxBurger.java x BurgerRestaurant.java x HealthyBurger.java x NormalBurger.java x
Source History
1 package burgerrestaurant;
2
3 import java.util.Scanner;
4
5 public class BurgerRestaurant {
6
7     public static void main(String[] args) {
8         int n= Begging();
9         if(n==1){
10             NormalBurger burger= new NormalBurger();
11             burger.NormalBurger(burger);
12         }else if(n==2){
13             HealthyBurger hBurger= new HealthyBurger();
14             hBurger.HealthyBurger(hBurger);
15         }else{
16             DeluxBurger dBurger= new DeluxBurger();
17             dBurger.DeluxBurger(dBurger);
18         }
19     }
20
21     public static int Begging( ){
22         Scanner sc = new Scanner(System.in);
23         System.out.println("Hello at our Burger Restaurant"+"\n"+"please enter your order");
24         System.out.println("1 - Normal Burger "+'\n'+ "2 - Healthy Burger"+"\n"+"3 - Delux Burger");
25         int choice = sc.nextInt() ;
26         return choice;
27     }
28 }
```

2-NormalBurger Class :

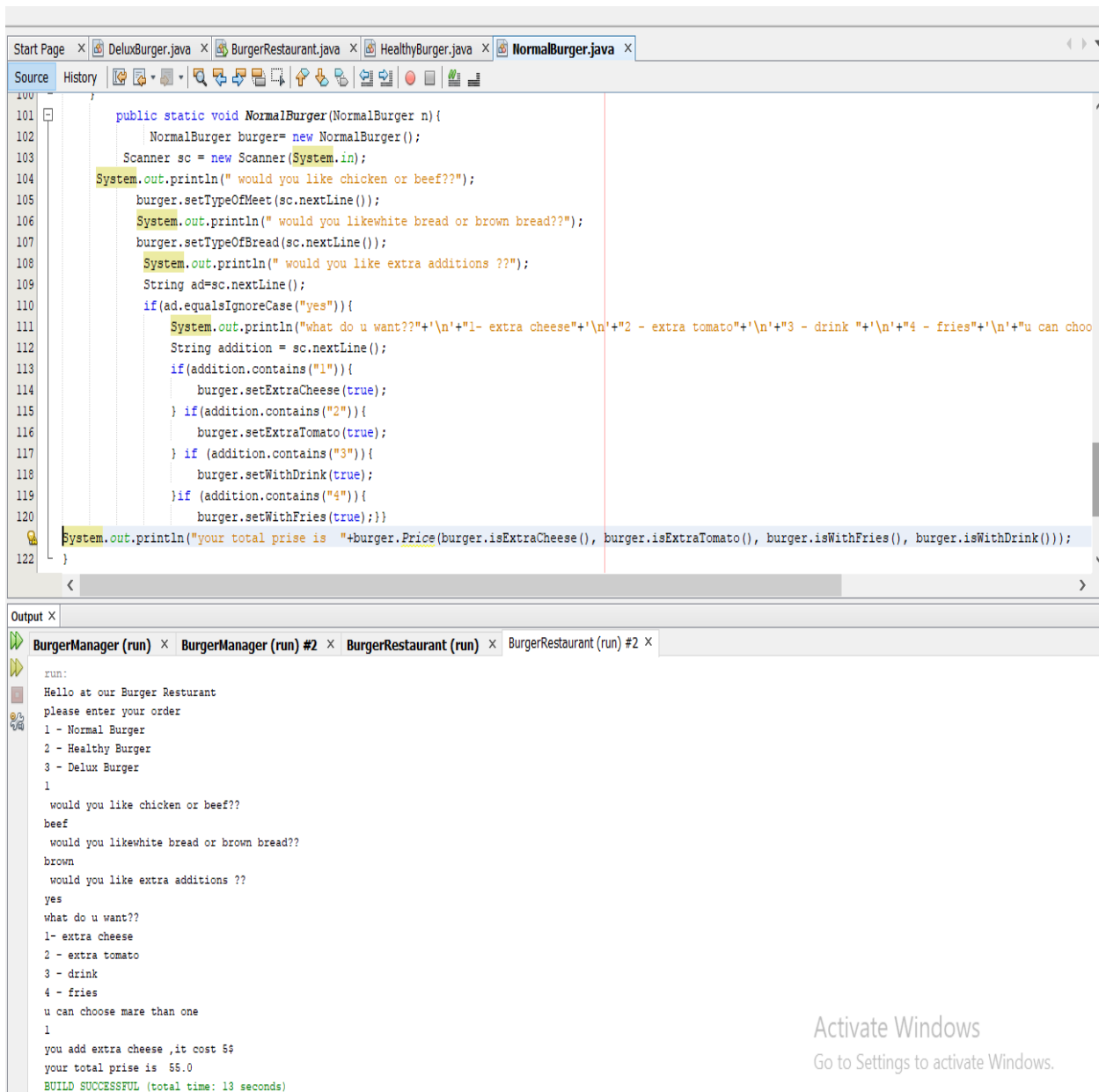


```
1
2 package burgerrestaurant;
3
4 import java.util.Scanner;
5
6
7
8 public class NormalBurger {
9     //atributes
10     private String name;
11     private String TypeOfMeet;
12     private String TypeOfBread;
13     private boolean ExtraCheese;
14     private boolean ExtraTomato;
15     private boolean withfries;
16     private boolean withdrink;
17
18     //constructor
19
20     public NormalBurger() {
21     }
22
23     //setter and getter
24
25     public String getName() {
26         return name;
27     }
28
29     public void setName(String name) {
30         this.name = name;
31     }
32
33     public String getTipoDeEncontro() {
34         return TipoDeEncontro;
35     }
36
37     public void setTipoDeEncontro(String TipoDeEncontro) {
38         this.TipoDeEncontro = TipoDeEncontro;
39     }
40
41     public String getTipoDePao() {
42         return TipoDePao;
43     }
44
45     public void setTipoDePao(String TipoDePao) {
46         this.TipoDePao = TipoDePao;
47     }
48 }
```

Activa
Go to Se

```
Start Page x DeluxBurger.java x BurgerRestaurant.java x HealthyBurger.java x NormalBurger.java x
Source History
54 }
55
56 public boolean isExtraTomato() {
57     return ExtraTomato;
58 }
59
60 public void setExtraTomato(boolean ExtraTomato) {
61     this.ExtraTomato = ExtraTomato;
62 }
63
64 public boolean isWithFries() {
65     return withfries;
66 }
67
68 public void setWithFries(boolean WithSalat) {
69     this.withfries = WithSalat;
70 }
71
72 public boolean isWithDrink() {
73     return withdrink;
74 }
75
76 public void setWithDrink(boolean WithCoCaCola) {
77     this.withdrink = withdrink;
78 }
79 //Price Method
80 public static double Price( boolean ExtraCheese,boolean ExtraTomato, boolean withfries,boolean withdrink){
81     int price=50;
82     int PriceOfCheese=5;
83     int priceOfTomato=5;
84     int priceOfFries=10;
85     int priceOfDrink=10;
86     if(ExtraCheese){
87         System.out.println("you add extra cheese ,it cost 5$");
88         price+= PriceOfCheese;
89     }if(ExtraTomato){
90         System.out.println("you add extra tomato ,it cost 5$");
91         price+= priceOfTomato;
92     }if(withfries){
93         System.out.println("you add extra fries ,it cost 10$");
94         price+= priceOfFries;
95     }if(withdrink){
96         System.out.println("you add extra drink ,it cost 10$");
97         price += priceOfDrink;
98     }
99     return price;
100 }
```

باقي الكود كلاس النورمال مع الاوت بوت عند اختياره- Normal Burger with output:



The screenshot displays an IDE with a project named 'BurgerRestaurant'. The 'NormalBurger.java' file is open, showing a static method 'NormalBurger' that handles the logic for ordering a normal burger. The code prompts the user for meat, bread, extra additions, and a final choice of extras, then calculates the total price.

```
100
101
102     public static void NormalBurger(NormalBurger n){
103         NormalBurger burger= new NormalBurger();
104         Scanner sc = new Scanner(System.in);
105         System.out.println(" would you like chicken or beef??");
106         burger.setTypeOfMeet(sc.nextLine());
107         System.out.println(" would you likewhite bread or brown bread??");
108         burger.setTypeOfBread(sc.nextLine());
109         System.out.println(" would you like extra additions ??");
110         String ad=sc.nextLine();
111         if(ad.equalsIgnoreCase("yes")){
112             System.out.println("what do u want?"+'\n'+1- extra cheese+'\n'+2 - extra tomato+'\n'+3 - drink '+'\n'+4 - fries+'\n'+u can choo
113             String addition = sc.nextLine();
114             if(addition.contains("1")){
115                 burger.setExtraCheese(true);
116             } if(addition.contains("2")){
117                 burger.setExtraTomato(true);
118             } if (addition.contains("3")){
119                 burger.setWithDrink(true);
120             }if (addition.contains("4")){
121                 burger.setWithFries(true);}
122         System.out.println("your total prise is "+burger.Price(burger.isExtraCheese(), burger.isExtraTomato(), burger.isWithFries(), burger.isWithDrink()));
123     }
```

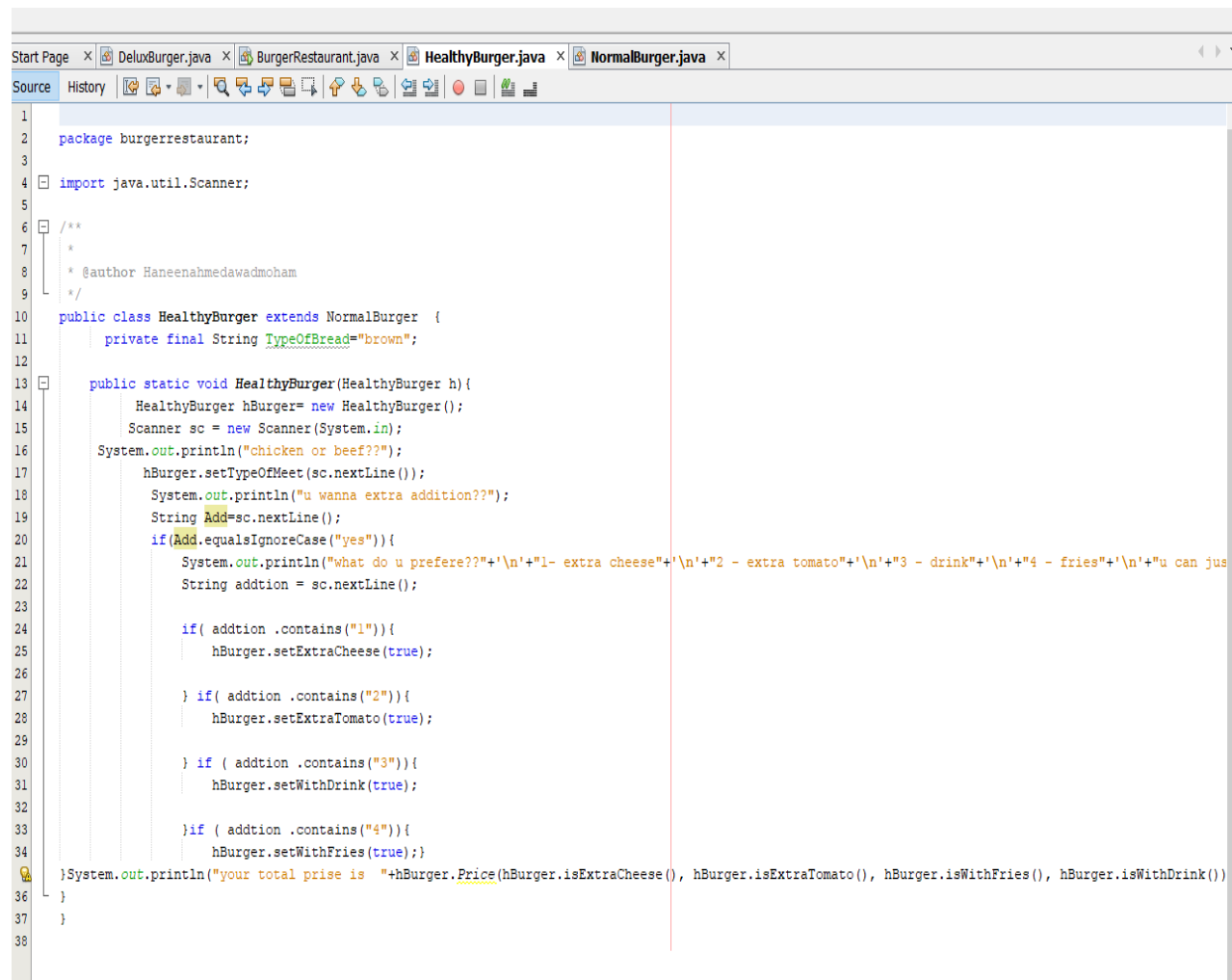
The 'Output' window shows the execution of the program. It starts with a greeting and a prompt to enter an order. The user selects '1 - Normal Burger'. The program then asks for meat ('beef'), bread ('brown'), and extra additions ('yes'). It lists the available extras: '1- extra cheese', '2 - extra tomato', '3 - drink', and '4 - fries'. The user chooses '1' for extra cheese. The final output shows the total price as 55.0 and a successful build message.

```
run:
Hello at our Burger Resturant
please enter your order
1 - Normal Burger
2 - Healthy Burger
3 - Delux Burger
1
would you like chicken or beef??
beef
would you likewhite bread or brown bread??
brown
would you like extra additions ??
yes
what do u want??
1- extra cheese
2 - extra tomato
3 - drink
4 - fries
u can choose mare than one
1
you add extra cheese ,it cost 5$
your total prise is 55.0
BUILD SUCCESSFUL (total time: 13 seconds)
```

Activate Windows
Go to Settings to activate Windows.

- 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.

-with output test :



```
1
2 package burgerrestaurant;
3
4 import java.util.Scanner;
5
6 /**
7  *
8  * @author Haneenahmedawadmoham
9  */
10 public class HealthyBurger extends NormalBurger {
11     private final String TypeOfBread="brown";
12
13     public static void HealthyBurger(HealthyBurger h){
14         HealthyBurger hBurger= new HealthyBurger();
15         Scanner sc = new Scanner(System.in);
16         System.out.println("chicken or beef??");
17         hBurger.setTypeOfMeet(sc.nextLine());
18         System.out.println("u wanna extra addition??");
19         String Add=sc.nextLine();
20         if(Add.equalsIgnoreCase("yes")){
21             System.out.println("what do u prefere??"+"\n"+"1- extra cheese"+"\\n"+"2 - extra tomato"+"\\n"+"3 - drink"+"\\n"+"4 - fries"+"\\n"+"u can jus
22             String addition = sc.nextLine();
23
24             if( addition .contains("1")){
25                 hBurger.setExtraCheese(true);
26
27             } if( addition .contains("2")){
28                 hBurger.setExtraTomato(true);
29
30             } if ( addition .contains("3")){
31                 hBurger.setWithDrink(true);
32
33             }if ( addition .contains("4")){
34                 hBurger.setWithFries(true);
35             }System.out.println("your total prise is "+hBurger.Price(hBurger.isExtraCheese(), hBurger.isExtraTomato(), hBurger.isWithFries(), hBurger.isWithDrink())
36         }
37     }
38 }
```

The output when we choose healthy:

```
7 | *
8 | * @author Haneenahmedawadmoham
9 | */
10 | public class HealthyBurger extends NormalBurger {
11 |     private final String TypeOfBread="brown";
    <|
```

Output X

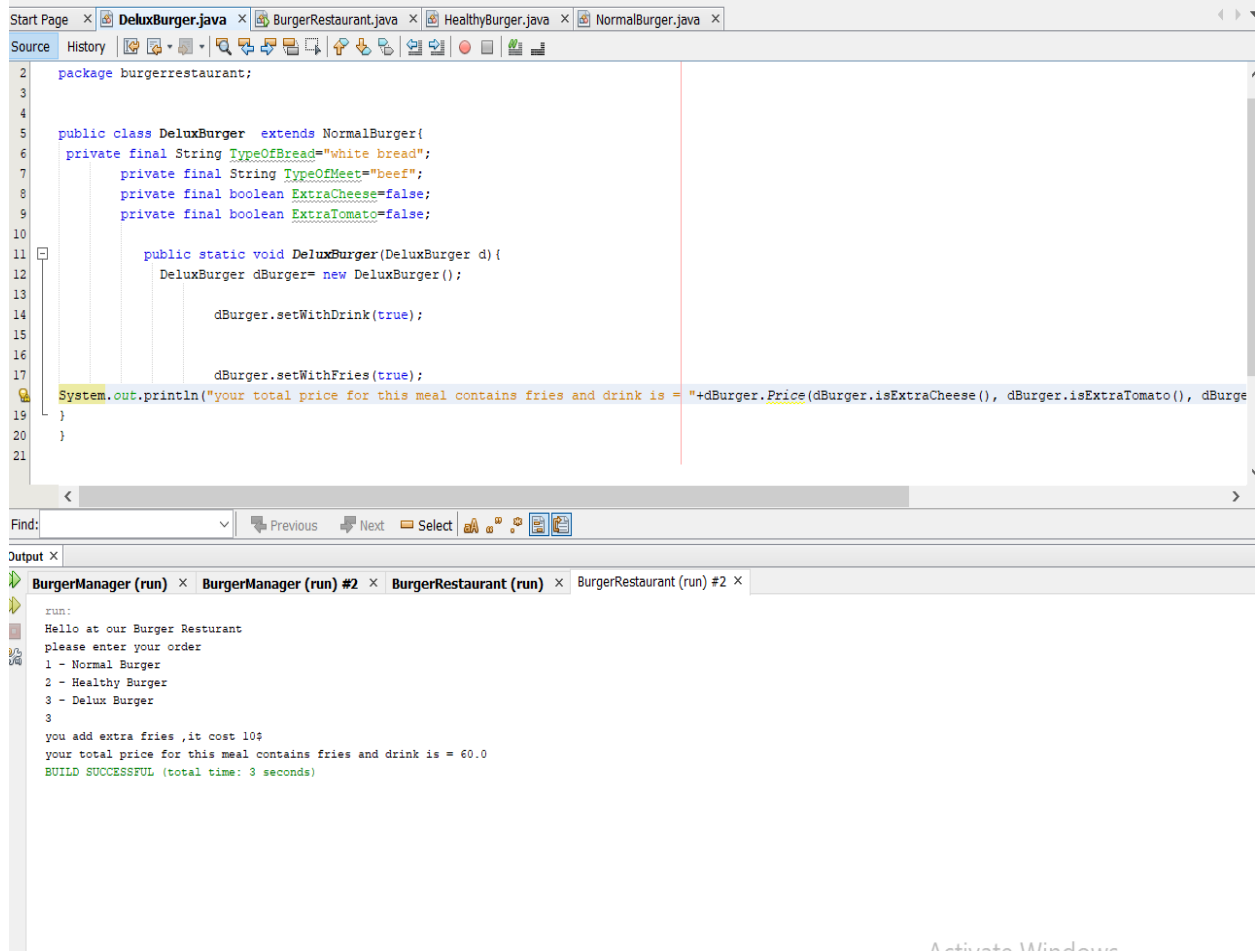
BurgerManager (run) X BurgerManager (run) #2 X BurgerRestaurant (run) X BurgerRestaurant (run) #2 X

run:

Hello at our Burger Resturant
please enter your order
1 - Normal Burger
2 - Healthy Burger
3 - Delux Burger
2
chicken or beef??
beef
u wanna extra addition??
yes
what do u prefere??
1- extra cheese
2 - extra tomato
3 - drink
4 - fries
u can just choose 2 addirtion
2
you add extra tomato ,it cost 5\$
your total prise is 55.0
BUILD SUCCESSFUL (total time: 11 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.

With output when we choose dulex :



The screenshot displays an IDE with four open files: `DeluxBurger.java`, `BurgerRestaurant.java`, `HealthyBurger.java`, and `NormalBurger.java`. The `DeluxBurger.java` file is active, showing the following code:

```
2 package burgerrestaurant;
3
4
5 public class DeluxBurger extends NormalBurger{
6     private final String TypeOfBread="white bread";
7     private final String TypeOfMeat="beef";
8     private final boolean ExtraCheese=false;
9     private final boolean ExtraTomato=false;
10
11     public static void DeluxBurger(DeluxBurger d){
12         DeluxBurger dBurger= new DeluxBurger();
13
14         dBurger.setWithDrink(true);
15
16         dBurger.setWithFries(true);
17         System.out.println("your total price for this meal contains fries and drink is = "+dBurger.Price(dBurger.isExtraCheese(), dBurger.isExtraTomato(), dBurger.isExtraFries()));
18     }
19 }
20
21
```

The output window shows the following text:

```
run:
Hello at our Burger Restaurant
please enter your order
1 - Normal Burger
2 - Healthy Burger
3 - Delux Burger
3
you add extra fries ,it cost 10$
your total price for this meal contains fries and drink is = 60.0
BUILD SUCCESSFUL (total time: 3 seconds)
```

At the bottom right of the IDE, there is a watermark that says "Activate Windows".