

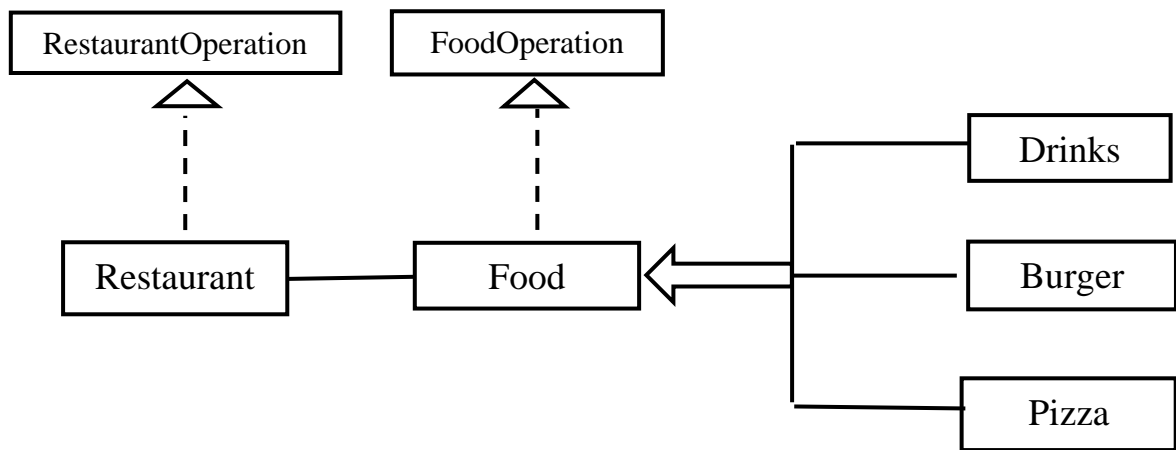


AMERICAN INTERNATIONAL UNIVERSITY-BANGLADESH (AIUB)
Faculty of Science and Technology (FST)
Department of Computer Science (CS)

Course Title: Object Oriented Programming 2

Lab Task 8: Developing a basic C# program with Inheritance, Association, Polymorphism, Abstraction and Interface.

Look at the following class notations and class diagram carefully, and develop the program.



Class Diagram

Food
String name String ingredients [] double price float calories
Food() Food (String name, String[] ingredients, double price, float calories) void setName(String name) void setIngredients (String[] ingredients) void setPrice(double price) void setCalories (float calories) String getName ()

```
String[] getIngredients ( )
double getPrice ( )
float getCalories ( )

abstract void showDetails( )
```

Drinks

```
String Type
int sizeInLitter

Drinks()
Drinks (String name, String[] ingredients, double price, float calories, String type,
int sizeInLitter)

void setType (String type)
void setSize(int sizeInLitter)

String getType ()
int getSize ()
```

Burger

```
int numberOfPatty

Burger()
Burger( String name, String[] ingredients, double price, float calories, int
numberOfPatty)
void setNumberOfPatty (int numberOfPatty)
int getNumberOfPatty ()

void showDetails ()
```

Pizza

```
int sizeInInches

Pizza()
Pizza( String name, String[] ingredients, double price, float calories, int
sizeInInches)
void setSize (int sizeInInches)
int getSize ()
void showDetails ()
```

Restaurant
String restaurantName Food [] order //size of array should be 100.
Restaurant() Restaurant(String restaurantName) void setRestaurantName(String restaurantName) String getRestaurantName()

RestaurantOperation
void addToOrder(Food f) void removeFromOrder (Food f) void showOrders() double calculateBill()

FoodOperation
void removeIngredient(String ingredient) void addingredient(String ingredient)

Start
Inside the main method, create Five objects of Drinks , Five objects of Burger , Five objects of Pizza and One object of Restaurant . Demonstrate all the methods and constructors.