

# Problems on Structural Design Pattern

**Submission Due Date:**

## **Assignment # 3 (Off Line)**

### **Assignment # 3a**

There is a **method** of a class named **calculate** Sum which **takes a file as input and shows the sum of the integers written in decimal format separated by spaces in the file.** Now write an **adapter** for this so that it can be applied **on a file that contains characters separated by spaces.** Using this adapter we can now add the numbers represented by the **ASCII values of the characters.**

You have to write methods for **calculating the sum** and **the adapter** and demonstrate using **practical data.**

### **Assignment # 3b**

Consider a pizza shop selling **pizza, appetizer and drinks.** The following points describe the services provided to the customer.

1. Two different types of pizzas are being sold. One is **Veggi Pizza** and the other is **Beef Pizza.** The **price of these two different types of pizza will be different.**
2. There are provisions of two different types of drinks. One is **Coffee** and the other is **Coke.** The **prices of these two different types of drinks are different.**
3. **Onion Rings** and **French Fries** are two different types of appetizers available with the **same price** of Tk 100.00.
4. A customer can order **a pizza with an appetizer.**
5. A customer can order **a combo meal which consists of an appetizer, a pizza and a drink.**

Construct a class indicating the following using **decorator pattern:**

1. **Beef Pizza** with **French fry**
2. **Veggi Pizza** with **onion rings**
3. A combo meal with **Veggi Pizza, French Fry and Coke**
4. A combo meal with **Veggi Pizza, Onion Rings and Coffee**
5. A **Beef Pizza** only

In **each of the cases determine the price of the options** shown above as a method of the class to be created.

**Deadline: 10:00 PM 12-04-2021.**

**Any form of plagiarism, irrespective of source or destination, will result in -100% marks in the online/offline**