

## Offline Assignment 2

**Submission deadline : June 23, 2018 11:00 pm**

Draw a class diagram and write necessary codes to implement appropriate design pattern so that your code fulfill all the requirements for the following scenarios.

### Scenario 1

Consider a vending machine which dispenses soft drinks when a coin is inserted. However, this service depends on some factors such as **inventory of the machine**, **amount of currency deposited**, the **ability to make change**, the **item selected**, etc. When currency is **deposited** and a selection is made, a vending machine will **either deliver a product and no change**, **deliver a product and change**, **deliver no product due to insufficient currency** on deposit, or **deliver no product due to inventory depletion**.

### Scenario 2

Suppose you are going to develop a software for facilitating transfer of information among the students of your class. Any student of your class **can subscribe or unsubscribe** from the service of the software. Whenever the class representative gets to know some information regarding any academic issue, s/he **inputs the information to the software as a text segment** and then this **message is emailed to all subscribed students**.

### Notes:

1. You have to use version controlling.
2. Copying will incur a 100% penalty of total marks.