

1. Implement an encryption/decryption algorithm. Develop 2 methods, 1<sup>st</sup> takes an input string and encrypts it, 2<sup>nd</sup> method should take the encrypted value and return the original decrypted value. Algorithm is of your choice.

**\* Sample algorithm for ref (Don't use the given algorithm)**

- a) **Input:** "apple"
- b) **Step1:** Reverse the input --> "elppa"
- c) **Step2:** Replace all vowels using the following chart:
  - i. a => 0
  - ii. e => 1
  - iii. i => 2
  - iv. o => 3
  - v. u => 4// "elppa" --> 1lpp0
- d) **Step3:** Add "aca" to the ending --> 1lpp0aca

**\* Example: Encrypt("banana") → "0n0n0baca"**

2. Write an ATM based program with basic operations like check balance, withdraw money, deposit money, change PIN number
  - a) Use Validations such as "Only numbers should be accepted for PIN/Amount"
  - b) Block user after 3 failed attempts (for that instance as we currently don't store this data anywhere)
  - c) After completion of a particular transaction, ask whether the user wish to make another transaction or exit, if they wish to make another transaction don't prompt for pin again and we should again give them all the available options (check balance, withdraw, deposit, change PIN)