Virtual Banking System

Description

A Virtual bank has decided to renew its policy; according to the new policy, you can only own a savings account with minimum savings of Rs.1000. Create a class '**SavingAmount**' with only one integer instance variable 'saving'. The class will have the following methods in it:

1. A setter method that will take an integer as a parameter and set the value of **savings** equal to that of the integer .
2. A getter method that will return the **saving** .
3. An increment method that will increase the savings by Rs.1000 .
4. A decrement method that will decrease the savings by Rs.100 .
5. A method to check the savings of a person say 'checkSavings'. If the savings amount is greater than or equal to Rs.1000, print **"**Congratulations! You have saved a good amount". If the amount is less than Rs.1000 and greater than or equal to 0, print "Insufficient saving!". If the savings amount is less than 0, print "You are in debt**"**.

Input: Your program should take the integer amount.

Output: The output should be in the following format.

1. Call the decrement method once and then print the value returned by the getter method in the class.
2. Call the increment method once and then print the value returned by the getter method in the class.
3. Call the 'checkSavings' method.
4. Display the total savings.

Sample Input:
20000

Sample Output:
Congratulations! You have saved a good amount
Your current savings are Rs 20900

Sample Input:
-1000

Sample Output:
You are in debt
Your current savings are Rs -100

Sample Input:
-100

Sample Output:
Insufficient saving!
Your current savings are Rs 800

ASCII String Game

Description

There exists a function "**X**" such that it accepts two input parameters **A & B** and whose output depends on the operation you decide to perform on **A & B**.

- **Operation 1:** It accepts two integer parameters (**A & B**) and prints the sum of the two integers.
- **Operation 2:** It accepts two string parameters and concatenates the two strings (**A & B**) and displays the result.
- **Operation 3:** It accepts two parameters one of type integer and the other is of type string and prints the sum of ascii characters of the string to the integer and displays the integer result.

Write a program to display the operation of **X** using the two string inputs provided by the user.

Note- For any value of **C** other than 1, 2 or 3, the function should return “Invalid Operation”.

Note2- The equivalent integer value of any string is the sum of it’s ASCII characters.

Input Format

A: input parameter of type string

B: input parameter of type string

C: a integer parameter denoting the operation to be performed on the two strings

Output Format

An integer/string **R** denoting the result of the operation.

Constraints

Length of **A**<=10^2

Length of **B**<=10^2

$1 \leq \mathbf{C} \leq 3$

Example

Sample Input 1

hello

world

1

Sample Output 1

1084

Sample Output 1 Explanation

The requested operation is 1 so the function will print the sum of the ascii values in the string **"helloworld"** which is equal to 1084.

Sample Input 2

556

world

3

Sample Output 2

712

Sample Input 3

Java

Programming

2

Sample output 3

JavaProgramming

Secret Operation in Java

Description

A secret switchboard function named **Secret** needs to be designed for counterinsurgency operations. The switch board will operate as follows:

It will accept a string as the parameter along with the locale parameter which specifies the encryption to be used. The values for the locale parameter will be as follows:

0 Asia

1 United states

2 Dubai

Given that the encryption techniques followed by each locale is described below:

- All messages sent via Asia will be sent by encrypting all characters by a Caesar shift of 2 i.e. ABC will be encrypted as CDE.
- All messages sent to United States are represented in a dot separated ASCII format i.e. ABC will be encrypted as 65.66.67
- All messages sent via Dubai encryption reverse the string and send it i.e. ABC will be sent as CBA.

Write a function that extends the **Secret** class and uses the Asia (), Dubai () and United States () functions in **Secret** to return a collective result of **N** user input queries in the format shown below:

S, where S represents a string array of user input messages.

L, where L represents the locale parameter for encryption in the form of an integer array where L[i] is the encryption parameter for input message S[i].

Note: Messages to be encrypted using Asia will return Invalid message if characters other than English Alphabets are encountered.

Input Format

The first line contains an integer **n** containing the number of queries to be sent to the Secret function.

The next subsequent **n** lines contain the values of a string array of user input messages where each string represents the message to be encrypted.

The next subsequent **n** lines contain the values of the locale parameter for user input messages in an integer array where the **i**th entry denotes the encryption to be used for user input messages **S[i]**.

Output Format

An array containing the encrypted string messages.

Example

Sample Input 1

2

Beautiful

World

0

2

Sample Output

Dgcwvkhwn

dlroW

Explanation

The first message is encrypted using Asia() so **Beautiful** is encrypted as **Dgcwvkhwn** and World is encrypted using Dubai() so it gets encrypted as Dlrow.

Sample Input 2

3

Blue

Green

Algae

0

2

3

Sample Output 2

Dnwg

neerG

Invalid locale

Sample Input 3

5

olaf

frozen

elsa

anna

ice

1

2

2

2

2

Sample Output 3

111.108.97.102

nezorf

asle

anna

eci