January 2020 : CSE 108 - Online 2 (B1, B2)

Time : 20 minutes   End : 03.00 PM

- Write a method named "promote" in the Container.cpp class. The details of this method is as follows.
    - *Parameter* : None
    - *Return type* : A Container object
    - *Task* : It promotes the contents of the Container object it is called on. What we mean by "promotes" is, if the Container object contains an integer, after calling this method, the object contains an integer array with a single element (which is the integer it had before) and if the Container object contains an integer array, after calling this method, the object contains an integer matrix with a single row (which actually holds the elements of the integer array it had before). You don't need to handle the cases when the Container object contains a matrix or is empty.
- Restrictions: You cannot declare any new method, any member variable and not even any local variable in the "promote" method (however you can use loop variable if needed, but not for any other purpose).
- Suppose, you have already implemented the above mentioned method. But unfortunately, there was a bug in another method of the class so that the object on which "promotes" is called, is updated correctly, but the object returned by this method, is showing some modified values. Now modify the appropriate method so that this bug is introduced in your code. See the main function and the commented out behavior for explanation.

```cpp
int main(){
    Container b(100);

    int *arr = new int[3];
    arr[0] = 10;
    arr[1] = 20;
    arr[2] = 30;

    Container c(arr, 3);

    b.print();
    // b contains a single integer, 100
    b.promote().print();
    // the returned object contains an integer array with a
single element, 200
    b.print();
    // b contains an integer array with a single element, 100

    c.print();
    // c contains an integer array with elements 10, 20, 30
    c.promote().print();
    // the returned object contains an integer matrix with a
single row. The elements of the row are 30, 60, 90
    c.print();
    // c contains an integer matrix with a single row. The
elements of the row are 10, 20, 30

    return 0;
}
```