

Assignment #1
COEN 278
Fall 2023

Question 1

Redefine the following method of Array class:

```
Array#select  
Array#map  
Array#reverse
```

Question 2

Solve the following leetcode problem using Ruby language

21. Merge Two Sorted Lists

(submit screen shot of submission and source code file)

Question 3

Write a class for compressing a sentence.

By compress a sentence, we mean to remove duplicate words.

For example, a sentence "i love you but do you love me" will be compressed into "i love you but do me".

When you create an object of this class, you pass a sentence argument (a string), then the object is initialized with the **compressed** result of this string as the attribute of the object.

The compressed result will be saved in an array of each word of the initial sentence.

You also need another array to remember index of word in compressed array for decompress purpose.

For example: assuming the name of your class is **Compress**, to create an object:

```
obj = Compress.new("i love you but do you love me") #there are duplicate words in it
```

then there will be two attributes created inside the object to hold two values:

```
["i", "love", "you", "but", "do", "me"] # duplicate word removed (compressed)
```

```
[0, 1, 2, 3, 4, 2, 1, 5] # index to the original array to represent original sentence
```

You task: add an instance method to return the original string (not compressed)