

How to Use

This code meets the specifications listed in the Assignment 1 document provided. The input file needed has been included by me.

Once the input is read, the program will print the array values.

```
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
```

The program then will call all of the four functions from the specification document once each, except for the first function that is called twice

The **first function** asks the user to enter a value to check is in the array. If the value is in the array, the index of that value is returned. If the value is not found in the array, -1 is returned.

```
Enter the value you want to find the index of in the array, will return -1
if not found
33
32

Enter the value you want to find the index of in the array, will return -1
if not found
400
-1
```

The **second function** allows the user to change a value in the array. The function will ask for two inputs: the index of the value to change and the new value you want to be placed there. The old and new values are printed, as well as the updated array.

```
Enter the index of the element you want to change
32
Enter the new value you want to have at the entered index
303
Old value: 33
New value: 303

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
29 30 31 32 303 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
```

As stated in the assignment, this function has exception handling capabilities. If the index entered is less than 0, or greater than the index of the last element (here 49) then the function will output an error message and move on to the next function.

```
Enter the index of the element you want to change
-1
Invalid index entered.
```

Additionally, the function can also catch if the index entered is valid, but the value entered is not an integer number. Again an error message is output and the program skips to the next function.

```
Enter the index of the element you want to change
0
Enter the new value you want to have at the entered index
not an integer
Invalid input received, you must enter an integer number.
```

The **third function** allows the user to add a value to the end of the array. The function will ask the user to enter the integer value to append and print the updated array.

```
Enter the value you want to append to the array
51

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
```

As stated in the assignment, this function has exception handling capabilities. If the value entered is not an integer, the program will catch this error and skip to the next function.

```
Enter the value you want to append to the array
string
Invalid input received, you must enter an integer number.
```

The **fourth function** allows the user to delete a value from the array. It will ask the user to input an index, and will remove that value from the array and shift all values left of that index to the right one index. The updated array is displayed.

```
Enter the index of the value you want to delete from the array
32

0 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
29 30 31 32 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 ✎
```