

Lab Exercise 1

array/function review

Work on the following functions during lab. They can be all part of one program, tested using one main() function.

1. Write a function that display the content of a partially filled int array, assuming numbers stored inside are positive, and -1 is used as terminator.

```
/* display array content
```

```
precondition: array is of a certain capacity (unknown to the function), storing
positive ints, and terminated by -1
```

```
*/
```

```
void DisplayIntArray(int array[ ])
```

for example,

```
int a[200]={19, 23, 37, -1};
```

```
DisplayIntArray (a); // should display 19, 23, 37
```

2. Write a function that **reads a sequence of positive int numbers into an array, and return the length of the array accordingly.**

```
/* (partially) filled an array with int numbers
```

```
parameters: the array, and its capacity (size)
```

```
return the actual number of int stored in the array
```

```
*/
```

```
int ReadIntegers (int a[ ], int a_CAP)
```

for example,

```
int inputs[20];
```

```
len = ReadIntegers (inputs,20); // fill inputs with up to 19 numbers, terminated
with -1
```

3. Write a function that **reverse the elements stored in the array of positive ints** terminated using -1.

```
/* reverse array
```

precondition: array is of a certain capacity (unknown to the function), storing positive ints, and terminated by -1

postcondition: array elements are reversed

*/

```
void ReverseArray (int array[ ])
```

```
int a[10]={10,3,4,8,9,-1};
```

```
ReverseArray(a); // after the function call, the array a stores 9 8 4 3 10 -1
```