

Divide students into 4 groups and allow them maximum of 5 minutes to work on these subprogram.

Group #1:

allocate_array (subprogram description):

This subprogram will receive as argument IN two addresses of static variable. Then, it will prompt for array size and validates input to make sure array size is greater than zero (> 0). Then, it will allocate a dynamic integer array (using system call 9) and store the address of dynamic array and array size into static variables (using provided references). This subprogram does not return anything as argument OUT.

Group #2:

read_array (subprogram description):

This subprogram will receive as argument IN address and size of integer array (regardless of being static or dynamic array) and then prompts for integer and read integer for each array element (or index). This subprogram does not return anything as argument OUT.

Group #3:

print_array (subprogram description):

This subprogram will receive as argument IN address and size of integer array (regardless of being static or dynamic array) and then iterates through array and prints all elements of array. This subprogram does not return anything as argument OUT.

Group #4:

sum_array (subprogram description):

This subprogram will receive as argument IN address of integer array. Then initializes sum to zero and then iterates through array and adds all elements of array to the sum. This subprogram returns sum as argument OUT.

Lab 5 components:

1. main (trivial)
2. allocate_array (group 1)
3. read_array (group 2)
4. print_array (group 3)
5. sum_array (group 4)
5. print_average (trivial)