Write a C function void applyFunction(int arr[], int size, void (\*func)(int \*)) that takes an array, its size, and a pointer to a function that operates on each element of the array. Write a sample function to double the value of each element and use applyFunction to apply it to an array.

#include <stdio.h>

void doubleValue(int \*n) {

\*n = \*n \* 2;

}

void applyFunction(int arr[], int size, void (\*func)(int \*)) {

for (int i = 0; i < size; i++) {

func(&arr[i]);

}

}

int main() {

int arr[] = {1, 2, 3, 4, 5};

int size = sizeof(arr) / sizeof(arr[0]);

printf("Original array: ");

for (int i = 0; i < size; i++) {

printf("%d ", arr[i]);

}

printf("\n");

applyFunction(arr, size, doubleValue);

printf("Modified array: ");

for (int i = 0; i < size; i++) {

printf("%d ", arr[i]);

}

printf("\n");

return 0;

}