practical 06

01

#include <stdio.h>

int main() {

int NumberArray[10];

int i;

for(i = 0; i < 10; ++i) {

printf("Enter Number %d: ", i + 1);

scanf("%d", &NumberArray[i]);

}

int min = NumberArray[9], max = NumberArray[9];

int sum = 0, p = 0;

float avg;

int reverseArray[10];

for(i = 9; i >= 0; --i) {

if(min > NumberArray[i]) {

min = NumberArray[i];

}

if(max < NumberArray[i]) {

max = NumberArray[i];

}

sum += NumberArray[i];

reverseArray[p] = NumberArray[i];

p += 1;

}

avg = (float) sum / 10;

printf("----------------------------------\n");

printf("I. Minimum value: %d\n", min);

printf("II. Maximum value: %d\n", max);

printf("III. Average value: %.2f\n", avg);

printf("IV. Reverse order of values: {");

for(i = 0; i < 10; ++i) {

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

if(i != 9) {

printf(", ");

}else {

printf("}\n");

}

}

printf("----------------------------------\n");

}

02

#include <stdio.h>

int main() {

int arraySize;

printf("Enter Size of the Arrays: ");

scanf("%d", &arraySize);

int array1[arraySize];

int array2[arraySize];

for (int i = 0; i < 2; ++i) {

printf("\nArray %d: \n", i + 1);

for (int j = 0; j < arraySize; ++j) {

printf("Enter Number (%d/%d): ", j + 1, arraySize);

if (i) {

scanf("%d", &array2[j]);

} else {

scanf("%d", &array1[j]);

}

}

}

int scalarSum1 = 0;

int scalarSum2 = 0;

int vectorSum[arraySize];

int vectorProd[arraySize];

int scalarProd = 0;

for (int p = 0; p < arraySize; ++p) {

scalarSum1 += array1[p];

scalarSum2 += array2[p];

vectorSum[p] = array1[p] + array2[p];

vectorProd[p] = array1[p] \* array2[p];

scalarProd += vectorProd[p];

}

printf("----------------------------------\n");

printf("Scalar Sum of Array 1: %d\n", scalarSum1);

printf("Scalar Sum of Array 2: %d\n", scalarSum2);

printf("Vector Sum: {");

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

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

if (i != arraySize - 1) {

printf(", ");

} else {

printf("}\n");

}

}

printf("Vector Product: {");

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

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

if (i != arraySize - 1) {

printf(", ");

} else {

printf("}\n");

}

}

printf("Scalar Product: %d\n", scalarProd);

printf("----------------------------------\n");

}