***Practical 06***

1. #include <stdio.h>

int main() {

int array[10];

int i, min\_value, max\_value, sum\_value = 0;

float average\_value;

// Input the values to the array

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

printf("Enter value for array[%d]: ", i);

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

}

// Find the minimum value

min\_value = array[0];

for (i = 1; i < 10; i++) {

if (array[i] < min\_value) {

min\_value = array[i];

}

}

// Find the maximum value

max\_value = array[0];

for (i = 1; i < 10; i++) {

if (array[i] > max\_value) {

max\_value = array[i];

}

}

// Find the average value

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

sum\_value += array[i];

}

average\_value = sum\_value / 10;

// Reverse the order of the values

int reversed\_array[10];

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

reversed\_array[10 - i - 1] = array[i];

}

// Print the results

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

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

printf("Average value: %.2f\n", average\_value);

printf("Reversed array: ");

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

printf("%d ", reversed\_array[i]);

}

return 0;

}

2. #include <stdio.h>

void main() {

int size;

printf("Enter the size of the arrays: ");

scanf("%d", &size);

// Declare two arrays of size `size`

int array1[size], array2[size];

// Initialize the arrays with user input

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

printf("Enter element %d of array1: ", i);

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

}

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

printf("Enter element %d of array2: ", i);

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

}

// Calculate the scalar sum of the arrays

int scalarSum = 0;

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

scalarSum += array1[i] + array2[i];

}

// Calculate the vector sum of the arrays

int vectorSum[size];

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

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

}

// Print the scalar sum and vector sum

printf("Scalar sum: %d\n", scalarSum);

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

printf("Vector sum[%d]: %d\n", i, vectorSum[i]);

}

}