**PRACTICAL 06**

01.

##include <stdio.h>

int main() {

int arr[10];

int i;

printf("Enter 10 values:\n");

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

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

}

int min\_val = arr[0];

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

if (arr[i] < min\_val) {

min\_val = arr[i];

}

}

int max\_val = arr[0];

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

if (arr[i] > max\_val) {

max\_val = arr[i];

}

}

int sum = 0;

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

sum += arr[i];

}

float avg\_val = (float)sum / 10.0;

int reversed\_arr[10];

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

reversed\_arr[i] = arr[9 - i];

}

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

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

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

printf("Reverse order of values: ");

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

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

}

printf("\n");

return 0;

}

02.

#include <stdio.h>

int main() {

int size;

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

scanf("%d", &size);

int array1[size], array2[size], vector\_sum[size];

int i;

printf("Enter values for the first array:\n");

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

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

}

printf("Enter values for the second array:\n");

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

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

}

int scalar\_sum = 0;

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

scalar\_sum += array1[i] + array2[i];

}

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

vector\_sum[i] = array1[i] + array2[i];

}

printf("Scalar Sum: %d\n", scalar\_sum);

printf("Vector Sum: ");

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

printf("%d ", vector\_sum[i]);

}

printf("\n");

}

**PRACTICAL 07**

#include <stdio.h>

int main() {

int matrix1[3][3], matrix2[3][3], matrix\_sum[3][3];

int i, j;

// Input values for the first matrix

printf("Enter values for the first 3x3 matrix:\n");

for (i = 0; i < 3; i++) {

for (j = 0; j < 3; j++) {

printf("Enter value for row %d, column %d: ", i + 1, j + 1);

scanf("%d", &matrix1[i][j]);

}

}

// Input values for the second matrix

printf("Enter values for the second 3x3 matrix:\n");

for (i = 0; i < 3; i++) {

for (j = 0; j < 3; j++) {

printf("Enter value for row %d, column %d: ", i + 1, j + 1);

scanf("%d", &matrix2[i][j]);

}

}

// Calculate matrix sum and store it in the third matrix

for (i = 0; i < 3; i++) {

for (j = 0; j < 3; j++) {

matrix\_sum[i][j] = matrix1[i][j] + matrix2[i][j];

}

}

// Display the matrix sum

printf("Matrix Sum:\n");

for (i = 0; i < 3; i++) {

for (j = 0; j < 3; j++) {

printf("%d ", matrix\_sum[i][j]);

}

printf("\n");

}

return 0;

}