1.Mth maximum and Nth minimum

#include <stdio.h>

#include <stdlib.h>

void find\_mth\_max\_and\_nth\_min(int arr[], int size, int M, int N, int \*mth\_max, int \*nth\_min)

{

for (int i = 0; i < size - 1; i++) {

for (int j = i + 1; j < size; j++) {

if (arr[i] > arr[j]) {

int temp = arr[i];

arr[i] = arr[j];

arr[j] = temp;

}

}

}

if (M > size || N > size || M < 1 || N < 1) {

\*mth\_max = 0;

\*nth\_min = -1;

return;

}

\*mth\_max = arr[size - M];

\*nth\_min = arr[N - 1];

}

void calculate\_sum\_and\_difference(int a, int b, int \*sum\_result, int \*diff\_result)

{

\*sum\_result = a + b;

\*diff\_result = abs(a - b);

}

int main()

{

int size;

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

scanf("%d", &size);

int array[size];

printf("Enter %d elements:\n", size);

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

{

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

}

int M, N;

printf("Enter the value of M: ");

scanf("%d", &M);

printf("Enter the value of N: ");

scanf("%d", &N);

int mth\_max, nth\_min, sum\_result, diff\_result;

find\_mth\_max\_and\_nth\_min(array, size, M, N, &mth\_max, &nth\_min);

calculate\_sum\_and\_difference(mth\_max, nth\_min, &sum\_result, &diff\_result);

printf("M-th maximum: %d\n", mth\_max);

printf("N-th minimum: %d\n", nth\_min);

printf("Sum: %d\n", sum\_result);

printf("Difference: %d\n", diff\_result);

return 0;

}

OUTPUT

