

مختبر هياكل البيانات-المصفوفات ١

// Addition, Subtraction, and Multiplication 1-D array

#include <iostream>

using namespace std;

int main() {

 int size = 5; **// Size of the arrays**

 int array1[size] = {1, 2, 3, 4, 5};

 int array2[size] = {5, 4, 3, 2, 1};

 int sum[size], difference[size], product[size];

// Addition, Subtraction, and Multiplication

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

// Adding corresponding elements

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

// Subtracting corresponding elements

 difference[i] = array1[i] - array2[i];

// Multiplying corresponding elements

 product[i] = array1[i] * array2[i];

 }

```
// Displaying the results
```

```
cout << "Array 1: ";  
for (int i = 0; i < size; i++) {  
    cout << array1[i] << " ";  
}  
cout << endl;
```

```
cout << "Array 2: ";  
for (int i = 0; i < size; i++) {  
    cout << array2[i] << " ";  
}  
cout << endl;
```

```
cout << "Sum: ";  
for (int i = 0; i < size; i++) {  
    cout << sum[i] << " ";  
}  
cout << endl;
```

```
cout << "Difference: ";
```

```
for (int i = 0; i < size; i++) {  
    cout << difference[i] << " ";  
}  
cout << endl;  
  
cout << "Product: ";  
for (int i = 0; i < size; i++) {  
    cout << product[i] << " ";  
}  
cout << endl;  
return 0;  
}
```