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ARRAY ASSIGNMENT



WHAT IS AN ARRAY?

An array is a collection of items of the same data type stored at contiguous memory locations.

Key Features:

- Fixed size
- Zero-based indexing
- Efficient access

Declaring an Array

Syntax:

DataType ArrayName[Size];

Example:

int numbers[5];

Declares an array of 5 integers.

INITIALIZING AN ARRAY

Declaration:

```
int numbers[5] = {1, 2, 3, 4, 5};
```

Partial initialization:

```
int numbers[5] = {1, 2};
```

```
// Remaining elements are  
initialized to 0.
```

ACCESSING ARRAY ELEMENTS

Syntax

```
ArrayName[Index];
```

Example

```
cout << numbers[0]; // Access  
the first element
```

MULTI-DIMENSIONAL ARRAYS

Arrays with more than one dimension.

Syntax

```
DataType ArrayName[Rows][Columns];
```

Example

```
int matrix[3][3];
```

ADVANTAGES OF ARRAYS

- Easy to use and manage.
- Fast data retrieval using indexing.
- Suitable for fixed-size collections.

THANK YOU