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# . NET-programmering

Arrayer

Struct

Enum



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# Array

```
int[] numbers;  
  
int[] numbers = new int[5];  
  
int[] numbers = new int[] {10, 20};  
  
char[] characters = {'a', 'b', 'c'};
```

```
static void Main(string[] args)  
{  
    string[] names = new string[2];  
  
    names[0] = "John Doe";  
    names[1] = "Jane Doe";  
  
    foreach(string s in names)  
    {  
        Console.WriteLine(s);  
    }  
  
    Console.ReadLine();  
}
```

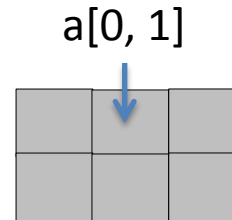
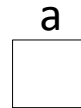
Exempel



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# Array

```
int[, ] a = new int[2,3];  
int x = a[0,1];
```



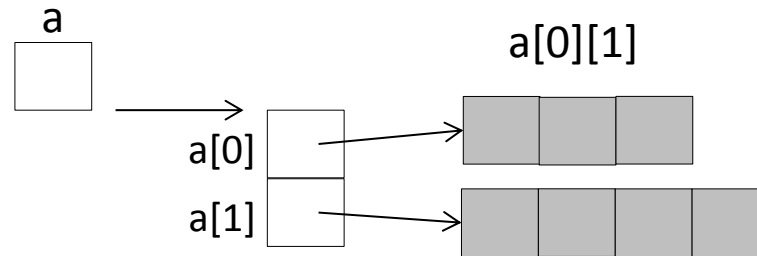
```
static void Main()  
{  
    string[, ] array = new string[, ]  
    {  
        {"cat", "dog"},  
        {"bird", "fish"},  
    };  
  
    Console.WriteLine(array[0, 0]);  
    Console.WriteLine(array[0, 1]);  
    Console.WriteLine(array[1, 0]);  
    Console.WriteLine(array[1, 1]);  
}
```

cat  
dog  
bird  
fish



# Array

```
int[][] a = new int[2][];  
a[0] = new int[3];  
a[1] = new int[4];  
  
int x = a[0][1];
```



# Dynamiska arrayer

- Array med variabel längd:
  - System.Collections.ArrayList

```
ArrayList list = new ArrayList();  
list.add(new Customer(1, "Kalle"));
```

- Associativ array:
  - System.Collections.Hashtable

```
Hashtable capitals = new Hashtable();  
capitals["Sweden"] = "Stockholm";  
capitals["Norway"] = "Oslo";
```



# Struct

```
struct Person
{
    public string firstName;
    public string lastName;

    public Person(string first, string last)
    {
        firstName = first;
        lastName = last;
    }

    public string getFullName()
    {
        string fullName = firstName + " " + lastName;
        return fullName;
    }
}
```



# Enumeration (enum)

- Datatyp med fördefinierade värden
  - Konstanter
  - Mappas mot siffervärden

```
enum Role {Admin, User, Guest}  
enum Direction {up=2, down=4}
```

```
User visitor = new User();  
visitor.UserRole = Role.Guest;
```