

Arrays In Perl

Talk to a Teacher

<http://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

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Learning Objective

In this tutorial, we will learn



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In this tutorial, we will learn

- ▶ **Index of an array**



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- ▶ Length of an array



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- ▶ Index of an array
- ▶ Length of an array
- ▶ Accessing elements of an array



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- ▶ **Looping over an array**



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- ▶ **Sequential Array**



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- ▶ Length of an array
- ▶ Accessing elements of an array
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- ▶ Sequential Array
- ▶ **Array Slicing**



System Requirements

- ▶ **Ubuntu Linux 12.04 OS**



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- ▶ **Perl 5.14.2**



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Pre-requisites

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- ▶ **Knowledge of loops and conditional statements (added advantage)**



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- ▶ Knowledge of Variables, Comments & Data-structures
- ▶ Knowledge of loops and conditional statements (added advantage)
- ▶ Please go through relevant spoken tutorials on

<http://spoken-tutorial.org>



Arrays in Perl

- ▶ **Array is a simple data structure**



Arrays in Perl

- ▶ **Array is a simple data structure**
- ▶ **It contains elements of any data type**



Arrays in Perl

- ▶ **Array is a simple data structure**
- ▶ **It contains elements of any data type**
- ▶ **Array index starts from zero always**



Arrays in Perl

- ▶ It is not necessary to declare the length of an Array



Arrays in Perl

- ▶ It is not necessary to declare the length of an **Array**
- ▶ **Array length expands/shrinks as and when elements are added/removed from it**



Declaring an Array

```
@myArray = (1, 2, 3, 'abc', 10.3);
```



Last Index an Array

Last index of an array can be found with this command -



Last Index an Array

**Last index of an array can be found
with this command -
`$#myArray`**



Length of an Array

Ways to find length of an Array



Length of an Array

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- ▶ Index of an array + 1
i.e $\$ \#array + 1$



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Length of an Array

Ways to find length of an Array

- ▶ Index of an array + 1
i.e $\$ \#array + 1$
- ▶ Using PERL inbuilt scalar function
scalar(@array)
- ▶ Assign array to a scalar variable
\$arrayLength = @array



Indexing

Indexing is used to access elements of an Array



Indexing

To access elements of an Array at-



Indexing

To access elements of an Array at-

- ▶ **First Position**



Indexing

To access elements of an Array at-

- ▶ First Position
- ▶ Last Position



Indexing

To access elements of an Array at-

- ▶ First Position
- ▶ Last Position
- ▶ Any position



looping over Array

2 ways of looping over an Array



looping over Array

2 ways of looping over an Array

- ▶ Using **for** loop



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looping over Array

2 ways of looping over an Array

- ▶ Using **for** loop
- ▶ Using **foreach** loop



Note

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- ▶ please go through the relevant tutorials



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Sequential Array

► `@alphaArray = (a..d);`



Sequential Array

- ▶ **@alphaArray = (a..d);**
- ▶ i.e alphaArray will contain elements as

@alphaArray = ('a', 'b', 'c', 'd');



Sequential Array

- ▶ `@alphaArray = (a..d);`
- ▶ i.e `alphaArray` will contain elements as

`@alphaArray = ('a', 'b', 'c', 'd');`

- ▶ `@numericArray = (1..5);` is same as `@numericArray = (1, 2, 3, 4, 5);`



Array Slicing

Slicing is nothing but,

- ▶ **extracting part of an array and dumping it into new array**



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Slicing is nothing but,

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- ▶ **@array = (19, 23, 56, 45, 87, 89);**
- ▶ **@newArray = @array[1, 4];**
- ▶ **After slicing, the newArray will look like -**
@newArray = (23, 87);



Summary

In this tutorial we have learnt to -

- ▶ Find index of an Array
- ▶ Find length of an Array
- ▶ Access elements of an Array
- ▶ Loop over an array
- ▶ Sequential Array and
- ▶ Array Slicing



Assignments

- ▶ Declare an array of rainbow colors
- ▶ Print 4th element of an array declare above
- ▶ Print Length & Last index of an array
- ▶ Loop over each element of an array using for & foreach loop
- ▶ `@myArray = (1..9);` Using this array, create an array of odd nubers using array slicing.



About the Spoken Tutorial Project

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The Spoken Tutorial Project Team

- ▶ Conducts workshops using spoken tutorials
- ▶ Gives certificates to those who pass an online test
- ▶ For more details, please write to contact@spoken-tutorial.org



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- ▶ It is supported by the National Mission on Education through ICT, MHRD, Government of India
- ▶ More information on this Mission is available at

<http://spoken-tutorial.org/NMEICT-Intro>

