

Functions In Perl

Talk to a Teacher

<http://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

Amol Brahmanekar

20 August 2013



Learning Objective

In this tutorial, we will learn about



Learning Objective

In this tutorial, we will learn about

- ▶ **Perl Functions**



Learning Objective

In this tutorial, we will learn about

- ▶ Perl Functions
- ▶ Functions with arguments



Learning Objective

In this tutorial, we will learn about

- ▶ Perl Functions
- ▶ Functions with arguments
- ▶ Functions with return values



System Requirements

- ▶ **Ubuntu Linux 12.04 OS**



System Requirements

- ▶ **Ubuntu Linux 12.04 OS**
- ▶ **Perl 5.14.2**



System Requirements

- ▶ **Ubuntu Linux 12.04 OS**
- ▶ **Perl 5.14.2**
- ▶ **gedit Text Editor**



Pre-requisites

Basic knowledge of

- ▶ **Variables** and **Comments**



Pre-requisites

Basic knowledge of

- ▶ **Variables and Comments**
- ▶ **Loops, Conditional Statements and Data Structures in Perl**



Pre-requisites

Basic knowledge of

- ▶ **Variables** and **Comments**
- ▶ **Loops, Conditional Statements**
and **Data Structures** in Perl
- ▶ For relevant tutorials, visit
<http://spoken-tutorial.org>



Perl Function

```
sub simple_func {  
    # piece of code  
}
```



Perl Function

- ▶ Functions, also called as **subroutines**, are declared with **sub** keyword



Perl Function

- ▶ The definition of the declared function is written between curly braces



Perl Function

- ▶ The definition of the declared function is written between curly braces
- ▶ This function does not take any arguments



Perl Function

- ▶ The definition of the declared function is written between curly braces
- ▶ This function does not take any arguments
- ▶ And, it does not return anything



Perl Function

- ▶ Function definition can be written anywhere in the **script** or in another **module**



Perl Function

- ▶ Function definition can be written anywhere in the **script** or in another **module**
- ▶ This **module** must be **included** in the script, to use this function



Perl Function

- ▶ To include the **module** file in the script, use following syntax



Perl Function

- ▶ To include the **module** file in the script, use following syntax
- ▶ `use ModuleFileName;`



Function with arguments

```
sub func_with_parameters {  
    ($variable1, $variable2,  
    .., $variableN) = @_;  
    # Action to be performed on the  
    arguments passed to this function  
}
```



Function with arguments

- ▶ `@_` is a special Perl array



Function with arguments

- ▶ **@_** is a special Perl array
- ▶ This array is used to store the passed arguments



Function with arguments

- ▶ **@_** is a special Perl array
- ▶ This array is used to store the passed arguments
- ▶ Similarly, we can catch the passed arguments in variables as

```
$var1 = shift @_;
```

```
$var2 = shift @_;
```



Function with arguments

- ▶ **shift** **@_** removes the element at first position from **@_ array**



Function with arguments

- ▶ **shift @_** removes the element at first position from **@_ array**
- ▶ **and assigns it to a variable**



Function with arguments

- ▶ **shift @_** removes the element at first position from **@_ array**
- ▶ and assigns it to a variable
- ▶ **Another way is;**
 `$var1 = $_[0];`
 `$var2 = $_[1];`



Function with arguments

- ▶ **shift @_** removes the element at first position from **@_ array**
- ▶ and assigns it to a variable
- ▶ Another way is;

```
$var1 = $_[0];  
$var2 = $_[1];
```
- ▶ Above way is similar to fetching elements of **@_ array** using index



Function with single return value

```
sub return_single_value {  
    #piece of code  
    return $variable;  
}
```



Function with multiple return value

```
sub return_multiple_values {  
    #piece of code  
    return ($variable1, .....,  
            $variableN);  
}
```



Perl's In-built Functions

- ▶ Perl provides several inbuilt functions like Arrays, Hash, sort, scalar, each, keys, etc.



Perl's In-built Functions

- ▶ Perl provides several inbuilt functions like Arrays, Hash, sort, scalar, each, keys, etc.
- ▶ Calling these inbuilt functions, is similar to calling any other function, which we define
E.g `sort(@arrayName);`



Summary

In this tutorial we learnt,

- ▶ **Functions**



Summary

In this tutorial we learnt,

- ▶ Functions
- ▶ Functions with arguments



Summary

In this tutorial we learnt,

- ▶ Functions
- ▶ Functions with arguments
- ▶ Functions which return values



Summary

In this tutorial we learnt,

- ▶ Functions
- ▶ Functions with arguments
- ▶ Functions which return values
- ▶ using sample programs



Assignments

- ▶ **Write a function which takes 3 arguments.**
- ▶ **Perform some action on these arguments.**
- ▶ **Return the result of the action performed on arguments and print the same.**



About the Spoken Tutorial Project

- ▶ Watch the video available at http://spoken-tutorial.org/What_is_a_Spoken_Tutorial
- ▶ It summarises the Spoken Tutorial project



About the Spoken Tutorial Project

- ▶ Watch the video available at http://spoken-tutorial.org/What_is_a_Spoken_Tutorial
- ▶ It summarises the Spoken Tutorial project
- ▶ If you do not have good bandwidth, you can download and watch it



Spoken Tutorial Workshops

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



Acknowledgements

- ▶ Spoken Tutorial Project is a part of the Talk to a Teacher project
- ▶ 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>

