

Hash In Perl

Talk to a Teacher

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National Mission on Education through ICT

<http://sakshat.ac.in>

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Learning Objective

In this tutorial, we will learn

- ▶ **Hash in Perl**



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- ▶ Hash in Perl
- ▶ Accessing element of a hash



System Requirements

- ▶ **Ubuntu Linux 12.04 OS**



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- ▶ **Perl 5.14.2**



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- ▶ **gedit Text Editor**



Pre-requisites

Basic knowledge of

- ▶ **Variables and Data Structures in Perl**



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- ▶ **Comments, Loops, Conditional Statements** and **Array** will be an added advantage



Pre-requisites

Basic knowledge of

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



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Hash

- ▶ Hash is an unordered collection of data



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- ▶ It's a key/value pair data structure



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- ▶ Hash keys are unique



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Hash

- ▶ Hash is an unordered collection of data
- ▶ It's a key/value pair data structure
- ▶ Hash keys are unique
- ▶ **However, it can have duplicate values**



Declaring hash

```
%hash = (  
    'Name' => 'John',  
    'Department' => 'Finance'  
);
```



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Accessing value of a key

Syntax:



Accessing value of a key

Syntax:

```
$hashName{ 'KeyName' }
```



Add, delete of a hash key

Syntax:



Add, delete of a hash key

Syntax:

Addition of a key

```
$hashName{ 'KeyName' } = $value;
```

Deletion of a key

```
delete $hashName{ 'KeyName' };
```



Sort keys

Syntax:



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Syntax:

```
sort(keys %hashName);
```



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Similarly, we can sort hash values as;



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sort(keys %hashName);
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Similarly, we can sort hash values as;

```
sort(values %hashName);
```



Inbuilt Functions

To fetch all the `hash` keys and values



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- ▶ `keys` function: used to retrieve all the keys of a hash



Inbuilt Functions

To fetch all the hash keys and values

- ▶ **keys function: used to retrieve all the keys of a hash**
- ▶ **values function: returns values of all the keys**



Inbuilt Functions

To fetch all the hash keys and values

- ▶ `keys` function: **used to retrieve all the keys of a hash**
- ▶ `values` function: **returns values of all the keys**
- ▶ `each` function: **iterates over hash and returns key/value pair from hash**



Syntax-looping over a Hash

```
foreach $variable  
(keys(%hashName)) {  
    # Action to be performed  
}
```



Syntax-looping over a Hash keys

```
foreach $variable  
(values(%hashName)) {  
    # Action to be performed  
}
```



- ▶ Hash is unordered collection of data



Note

- ▶ Hash is unordered collection of data
- ▶ Keys returned will not be in the sequence defined



Summary

In this tutorial we have learnt-

- ▶ Hash in Perl



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- ▶ **Accessing element of a hash**



Summary

In this tutorial we have learnt-

- ▶ Hash in Perl
- ▶ **Accessing element of a hash**
- ▶ **using sample programs**



Assignments

- ▶ **Declare** hash **having** student name as key
- ▶ **And** his/her percentage as the value
- ▶ **Loop** over a hash using keys, values **and** each **function**
- ▶ **Then** print the percentage of each student



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



Acknowledgements

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- ▶ **More information on this Mission is available at**

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

