

for & each Loops

Talk to a Teacher

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National Mission on Education through ICT

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Learning Objectives

- **Meaning of the term loop**



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- Meaning of the term **loop**
- **The different kinds of loops in Ruby**



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- Meaning of the term **loop**
- The different kinds of loops in Ruby
- **Usage of for loops**



Learning Objectives

- Meaning of the term **loop**
- The different kinds of loops in Ruby
- Usage of **for** loops
- **Usage of each looping construct**



System Requirements

Here we are using



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- **Ubuntu version 12.04**



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Here we are using

- Ubuntu version 12.04
- Ruby 1.9.3



Prerequisites

To follow this tutorial, you must have



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To follow this tutorial, you must have

- **Internet Connection**



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- Knowledge of Linux commands, Terminal and Text-editor



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- Knowledge of Linux commands, Terminal and Text-editor
- If not, for relevant tutorials, please visit <http://spoken-tutorial.org>



What is a loop?

A **loop**



What is a loop?

A **loop**

- **is a command**



What is a loop?

A loop

- is a command
- or set of commands



What is a loop?

A loop

- is a command
- or set of commands
- that are executed



What is a loop?

A loop

- is a command
- or set of commands
- that are executed
- **a fixed number of times**



Looping statements

Ruby has the following main looping statements



Looping statements

Ruby has the following main looping statements

- **for**



Looping statements

Ruby has the following main looping statements

- for
- each



Looping statements

Ruby has the following main looping statements

- for
- each
- while



Looping statements

Ruby has the following main looping statements

- for
- each
- while
- **until**



"for" loop

- Syntax of the **for** loop in Ruby is as follows:



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for "variable" in "a collection of objects"



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ruby code



"for" loop

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end



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ruby code

end

- Let us try to understand it with an example



"each" loop

- Syntax of the **each** loop in Ruby is as follows:



"each" loop

- Syntax of the **each** loop in Ruby is as follows:



"each" loop

- Syntax of the **each** loop in Ruby is as follows:

**"a collection of objects".each
do | item |**



"each" loop

- Syntax of the **each** loop in Ruby is as follows:

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do | item |
ruby code



"each" loop

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do | item |
ruby code

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"each" loop

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end

- **Let us try to understand it with an example**



Choosing the right loop construct

- How would we determine which looping construct to choose?



Choosing the right loop construct

- How would we determine which looping construct to choose?
- Let us try to recall the **for** loop construct



Summary

In this tutorial we have learnt:

- Usage of **for** loop
- Usage of **each** construct
- Reasoning behind using **each** instead of **for**
- Examples of using the above looping constructs



Assignment

Write a ruby program using

- **the appropriate loop construct**
- **to create an output of even numbers**
- **from a set of numbers, say 1 to 20**



About the Spoken Tutorial Project

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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



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- More information on this Mission is available at <http://spoken-tutorial.org/NMEICT-Intro>

