

Grammar of TurtleScript

Talk to a Teacher

<http://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

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Learning Objectives



Learning Objectives

We will learn about



Learning Objectives

We will learn about

- ▶ **Grammar of Turtlescript**



Learning Objectives

We will learn about

- ▶ **Grammar of Turtlescript**
- ▶ **if-else condition**



System Requirement



System Requirement

- **Ubuntu Linux OS v 12.04**



System Requirement

- ▶ **Ubuntu Linux OS v 12.04**
- ▶ **KTurtle v 0.8.1 beta**



Pre-requisites



Pre-requisites

- **Basic working knowledge of KTurtle**



Pre-requisites

- ▶ **Basic working knowledge of KTurtle**
- ▶ **for relevant tutorials, please visit our website**
<http://spoken-tutorial.org>



Turtle Script



Turtle Script

- ▶ TurtleScript is a **programming language**



Turtle Script

- ▶ TurtleScript is a **programming language**
- ▶ It has different types of **words and symbols** used for **various purposes**



Turtle Script

- ▶ TurtleScript is a **programming language**
- ▶ It has different types of **words and symbols** used for **various purposes**
- ▶ **It instructs Turtle** what to do



Grammar of Turtlescript



Grammar of Turtlescript

Grammar of TurtleScript includes-



Grammar of Turtlescript

Grammar of TurtleScript includes-

- **Comments**



Grammar of Turtlescript

Grammar of TurtleScript includes-

- ▶ **Comments**
- ▶ **Commands**



Grammar of Turtlescript

Grammar of TurtleScript includes-

- ▶ **Comments**
- ▶ **Commands**
- ▶ **Numbers**



Grammar of Turtlescript

Grammar of TurtleScript includes-

- ▶ **Comments**
- ▶ **Commands**
- ▶ **Numbers**
- ▶ **Strings**



Grammar of Turtlescript

Grammar of TurtleScript includes-

- ▶ **Comments**
- ▶ **Commands**
- ▶ **Numbers**
- ▶ **Strings**
- ▶ **Variables**



Grammar of Turtlescript

Grammar of TurtleScript includes-

- ▶ **Comments**
- ▶ **Commands**
- ▶ **Numbers**
- ▶ **Strings**
- ▶ **Variables**
- ▶ **Boolean values**



Numbers



Numbers

Numbers can be stored in



Numbers

Numbers can be stored in

- ▶ **Mathematical operators**



Numbers

Numbers can be stored in

- ▶ **Mathematical** operators
- ▶ **Comparison** operators



Numbers

Numbers can be stored in

- ▶ **Mathematical** operators
- ▶ **Comparison** operators
- ▶ **Variables**



Mathematical Operators



Mathematical Operators

Mathematical operators include



Mathematical Operators

Mathematical operators include

► **+** **Addition**



Mathematical Operators

Mathematical operators include

- ▶ **+** Addition
- ▶ **-** Subtraction



Mathematical Operators

Mathematical operators include

- ▶ **+** Addition
- ▶ **-** Subtraction
- ▶ ***** Multiplication



Mathematical Operators

Mathematical operators include

- ▶ **+** Addition
- ▶ **-** Subtraction
- ▶ ***** Multiplication
- ▶ **/** Division



Strings



Strings

- Strings can be put in **variables** like **numbers**



Strings

- ▶ Strings can be put in **variables** like **numbers**
- ▶ Strings cannot be used in **mathematical** or **comparison operators**



Strings

- ▶ Strings can be put in **variables** like **numbers**
- ▶ Strings cannot be used in **mathematical** or **comparison operators**
- ▶ Strings are **highlighted in red color**



Strings

- ▶ Strings can be put in **variables** like **numbers**
- ▶ Strings cannot be used in **mathematical** or **comparison operators**
- ▶ Strings are **highlighted in red color**
- ▶ Kturtle identifies a **line in double quotes** as a string



'if-else' Condition



'if-else' Condition

- ▶ 'if' condition is executed only if the boolean value evaluates 'true'



'if-else' Condition

- ▶ 'if' condition is executed only **if the boolean value evaluates 'true'**
- ▶ 'else' is **executed only if the 'if' condition is 'false'**



Summary



Summary

We have learnt about



Summary

We have learnt about

- ▶ **Grammar of Turtlescript**



Summary

We have learnt about

- ▶ **Grammar of Turtlescript**
- ▶ **'if-else' condition**



Assignment



Assignment

Solve an equation using



Assignment

Solve an equation using

- ▶ **'if-else' conditions**



Assignment

Solve an equation using

- ▶ **'if-else' conditions**
- ▶ **Mathematical and comparison operators**



Assignment

Solve an equation using

- ▶ **‘if-else’ conditions**
- ▶ **Mathematical and comparision operators**
- ▶ **Display the results using “print” and “go” commands**



Assignment



Assignment

To solve the assignment



Assignment

To solve the assignment

- ▶ **Choose any four random numbers**



Assignment

To solve the assignment

- ▶ **Choose any four random numbers**
- ▶ **Multiply two sets of random numbers**



Assignment

To solve the assignment

- ▶ **Choose any four random numbers**
- ▶ **Multiply two sets of random numbers**
- ▶ **Compare the results using comparison operators**



Assignment

To solve the assignment

- ▶ **Choose any four random numbers**
- ▶ **Multiply two sets of random numbers**
- ▶ **Compare the results using comparison operators**
- ▶ **Display both the results**



Assignment

To solve the assignment

- ▶ **Choose any four random numbers**
- ▶ **Multiply two sets of random numbers**
- ▶ **Compare the results using comparison operators**
- ▶ **Display both the results**
- ▶ **Display greater result at the center of canvas**



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



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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



Acknowledgements

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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>**

