

Variables and Mutability

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

<https://sakshat.ac.in>

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Learning Objectives

In this tutorial, we will learn:



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In this tutorial, we will learn:

- ▶ **How to create** variables



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In this tutorial, we will learn:

- ▶ **How to create** variables
- ▶ **About** mutability



Learning Objectives

In this tutorial, we will learn:

- ▶ **How to create** variables
- ▶ **About** mutability
- ▶ **How to** mutate variables **in** Rust



System Specifications

This tutorial is recorded using:



System Specifications

This tutorial is recorded using:

▶ **Ubuntu Linux OS version 18.04**



System Specifications

This tutorial is recorded using:

- ▶ **Ubuntu Linux OS version 18.04**
- ▶ **Rust version 1.47.0**



System Specifications

This tutorial is recorded using:

- ▶ **Ubuntu Linux OS version 18.04**
- ▶ **Rust version 1.47.0**
- ▶ **Visual Studio Code version 1.45.0 (code editor)**



Prerequisites



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- ▶ **You should be familiar with** `compiling and running Rust files`



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- ▶ **You should be familiar with** `compiling and running Rust files`
- ▶ **If not, please go through the prerequisite Rust tutorials on** <https://spoken-tutorial.org>



Code Files

- ▶ The file used in this tutorial is available in the `Code files` link on this tutorial page



Code Files

- ▶ **The file used in this tutorial is available in the Code files link on this tutorial page**
- ▶ **Pls download and extract the file**



Code Files

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- ▶ Pls download and extract the file
- ▶ Make a copy and then use it for practising



Mutability

- ▶ In Rust, variables **are** immutable **by default**



Mutability

- ▶ In Rust, variables **are** immutable **by default**
- ▶ That means, once the variable is declared we cannot change its value



Mutability

- ▶ **This is one of many advantages in Rust**



Mutability

- ▶ **This is one of many advantages in Rust**
- ▶ **That encourages us to write our code in a way that**



Mutability

- ▶ This is one of many advantages in Rust
- ▶ That encourages us to write our code in a way that
- ▶ It takes advantage of the safety and concurrency that Rust offers



Summary

In this tutorial, we have learnt:

- ▶ **How to create** variables
- ▶ **About** mutability
- ▶ **How to** mutate variables



Assignment

- ▶ **Go to the project folder** `rust-assignment`
- ▶ **In the `main.rs` file**
 - ▶ **Create a variable named `s` and make it mutable**
 - ▶ **Assign 13 as a value to `s`**
 - ▶ **Print the value of `s`**
 - ▶ **Reassign the value of `s` as 19**
 - ▶ **Print the value of `s`**



Assignment

- ▶ Compile **and** execute **the project**
- ▶ **Observe the output in the Terminal**



About Spoken Tutorial project

- ▶ Watch the video available at https://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



Answers for THIS Spoken Tutorial

- ▶ Questions in THIS Spoken Tutorial?
- ▶ Visit <https://forums.spoken-tutorial.org>
- ▶ Choose the minute and second where you have the question
- ▶ Explain your question briefly
- ▶ The Spoken Tutorial project will ensure an answer
- ▶ You will have to register to ask questions



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Thank you

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