# Rust 2021 Fundamentals

## Getting Started with Rust

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# Version Check

This version was created by using:
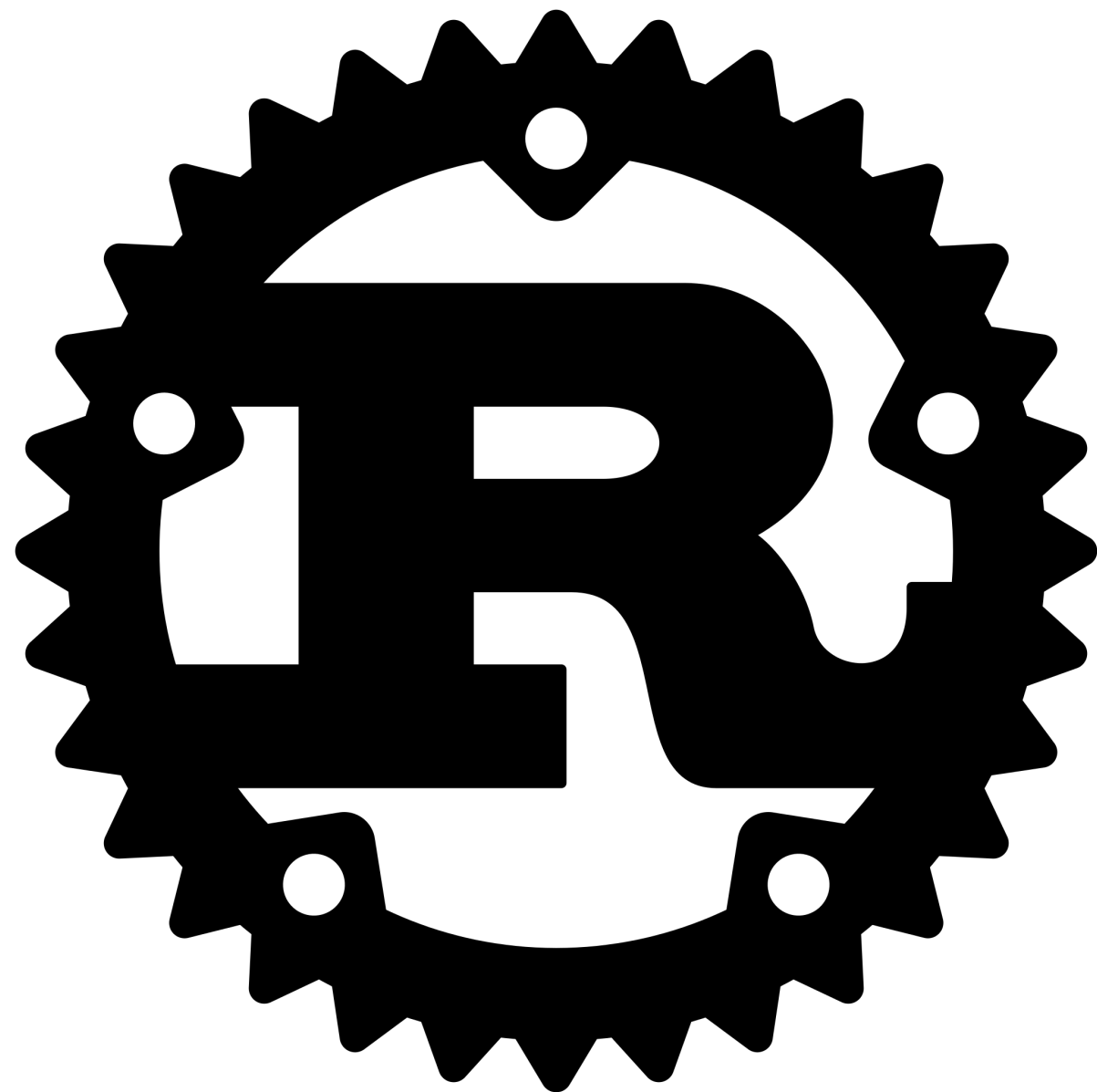- Rust Edition 2021

# Version Check

**This course is 100% applicable to:**
- Versions from Rust 2021 up to Rust 2024
- Starting with v1.56.0

**Performance**

**Security**

**User-friendly**

**Robust ecosystem**

# The History of Rust

**2006**
**Origin**
Rust begins as a personal project of Graydon Hoare

**2015**
**Rust 1.0**
The first stable release of Rust occurs

**2021**
**Rust 2021**
*In October Rust edition 2021 is released*

**2009**
**Sponsorship**
Mozilla officially begins *supporting Rust development*
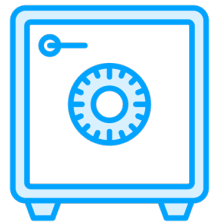
**2021**
**Foundation**
The Rust Foundation is established
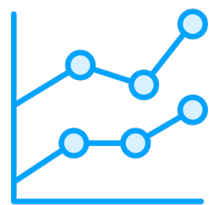
**2022**
**Growth**
Rust is used in Linux kernel development

# Why Use Rust?

Memory safety without sacrificing performance

You can experience the "if it compiles, it works" phenomenon

Excellent and growing ecosystem

Pleasing syntax and powerful language features

# Demo

**Install Rust and Cargo**

- Use Cargo to create a new project

# Demo

**Rust and Visual Studio Code**
- Install rust-analyzer
- Writing Rust code in VScode

# Demo

## Basic Rust program anatomy
- The "main" function
- Importing from the Rust standard library
- Interacting with the command line