

# Rust cheat sheet

Description	Syntax
variable (with type inference)	<code>let x = 10;</code>
mutable variable	<code>let mut x = 5;</code>
variables with different types	<code>let sx: i32 = -1; let ux: i32 = 2 let f: f32 = 1.5 let b: bool = false</code>
array	<code>let a: [i32; 5] = [1, 3, 2, 0]</code>
tuple	<code>let t: (i32, f64, u8) = (-5, 1.5, 1)</code>
print with new row	<code>println!("Hello!");</code>
print	<code>print!("Hello!");</code>
if	<code>if x &lt; 5 {     println!("true"); } else {     println!("false") }</code>
instantiating with if	<code>let y = if x &lt; 5 { 2 } else { 5 };</code>
function	<code>fn function (x: i32) -&gt; i32</code>
structure	<code>struct Rectangle {     width: u32,     height: u32, }</code>
initiate structure	<code>let r = Rectangle {     width: 4     height: 5 }</code>
implement function on struct	<code>impl Rectangle {     fn area(&amp;self) -&gt; u32 {         self.width * self.height     } }</code>

Description	Syntax
	}
	}
reference	let x = &s;
mutable reference	let x = &mut s;
enum	<pre>enum Message {     Quit,     Move { x: i32, y: i32 },     Write(String),     ChangeColor(i32, i32, i32), }</pre>
match	<pre>match message {     Message::Quit =&gt; {}     Message::Move { x, y } =&gt; {}     Message::Write(text) =&gt; {}     Message::ChangeColor(r, g, b)=&gt; {} }</pre>
closure (no parameters or return)	<pre>let closure =    {     //do stuf };</pre>
closure (parameters and return)	<pre>let closure =  num: u32  -&gt; u32 {     //do stuf };</pre>
open tread	<pre>let handle = thread::spawn(   {     // do stuf })</pre>
close tread	handle.join().unrawp()