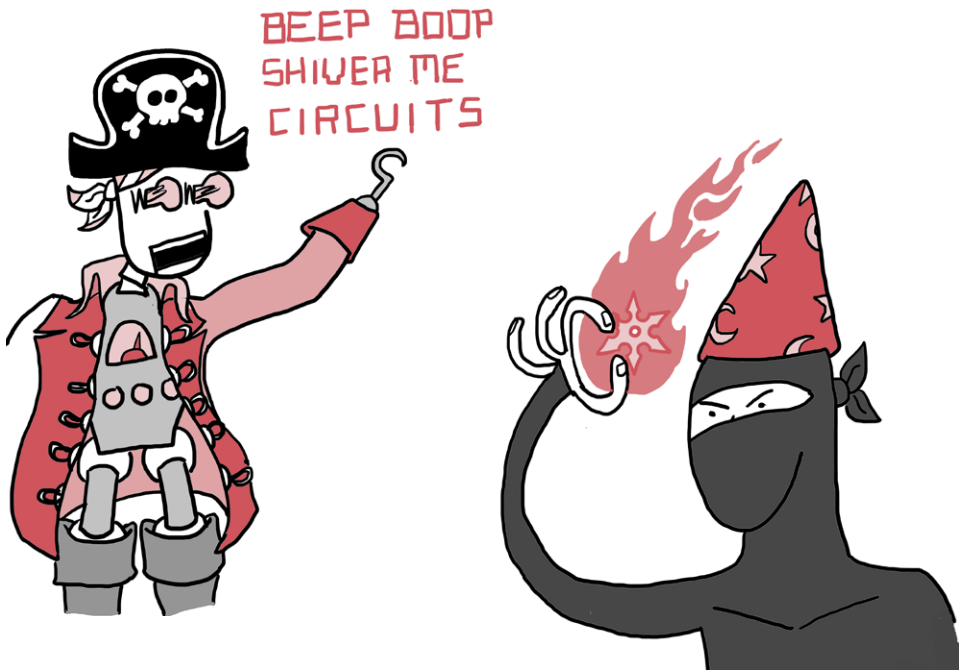


# 1 What This Book's ABOUT

You found this book! Okay, awesome. I was really hoping it would get to you.

Imagine someone tells you he's discovered a new way of writing. Not a new language, like French or Japanese or Elvish, but a whole new *kind* of writing that makes your stories *actually happen*. If you described a maze, people could enter—and get lost in—that maze. If you wrote about a far-away planet where robot pirates fought ninja wizards, that planet would totally exist. Not only that, but you could write dialogue like "Beep boop shiver me circuits" or cast spells like `ninja_wizard.throw_flaming_ninja_stars`. Crazy, right? And that's probably exactly what you'd say: that this is completely crazy and whoever thought of it has too much time on his hands. Too much imagination.



Well, it turns out there's no such thing as too much imagination. So! Imagine me this: not only is this crazy new way of writing *real*, but you can learn how to do it. You could, with a little practice, figure out how to make your own worlds with your own rules. You'd be in charge, and you could do pretty much anything you could think of. Not only that, but if you got really good at it, people would come from all over to experience the worlds you built and use all the amazing things you created.

You can stop imagining (for now, at least). I'm telling you that this is true! And this book can help you do it. The pages you now hold in your hands are a guide to a *programming language* called *Ruby* that will let you do all these things, and all you need is your brain, a computer, and Ruby.

*How can this be?* you might be thinking. *If something this cool and powerful existed, I definitely would have heard about it by now.*

Which brings us to our next topic.

# Why Learn Programming (and Why Ruby)?

Learning to program sounded boring to me when I was younger. I thought programming and computers were all about math and logic—that there was no room to be creative or do anything interesting. All day long, people told me what to do: go to school, walk the dog, go to the dentist, do my homework. I figured programming would be more of the same, so I avoided it completely. Instead, I wrote stories about space travel, magic, and distant worlds where not only did amazing things happen, but I was in charge! I still write stories all the time, but even the best stories end when the reader turns the last page. As much as you want starships or ninja wizards to be real, writing stories about them doesn't make that happen. So I did write a lot of stories, but I also had to go to the dentist.

Then something very strange happened: I decided to give programming a try. I discovered that this thing I thought would be terribly dry and boring was exactly the opposite—it was challenging and fun. Suddenly, I was calling the shots! If I told the computer to make a puzzle game, it made a puzzle game. If I told it to make a website, it made a website. It made real things in the world that I could see, play with, and use. It was as if all the stories I had been writing for years could now come to life, and all it took was this little box and a language I could use to talk to it.

It's true that some programming languages are hard, and some are downright confusing. Ruby is different: it was designed to make you happy—to be easy for *you* to read and understand, not just the computer. Ruby was built to help you tell stories that computers and human beings can both enjoy, and so instead of weird symbols or words like `static` and `void`, you get programs that look almost like English, with words like `unless`, `rescue`, `self`, and even `begin` and `end`.

Just as with any programming language, learning Ruby will help you learn important skills, make cool things, and feel

accomplished. But mostly, you'll just have *fun*. And among programming languages, I think Ruby is the most fun.

Let's say you wanted to program the computer to say "Howdy!" If you wanted to do this in another language—for instance, Java—you might have to write something really complicated, like this:

---

```
class Howdy {  
    public static void main (String[] args) {  
        System.out.println("Howdy!");  
    }  
}
```

---

That's a lot of code to print one word. To do the same thing in Ruby, you just type:

---

```
puts "Howdy!"
```

---

That's it! Ruby puts the word right there on the screen. Simple, right? Ruby is all about making you a happy and productive programmer (oh yeah—you're a programmer now), so it gets rid of a lot of complicated *syntax* (like { and ;) and lets you avoid writing boring things like `public static void main` all over the place. And since Ruby can do pretty much all the stuff that trickier languages like Java can do, you'll be able to build amazing things faster and with less effort.

Let's get started!

## *all adults on deck: Installing Ruby*

All right—this is the part where you might want to grab your mom, dad, grandpa, grandma, aunt, uncle, teacher, or another local adult to help you install Ruby on your computer. Ruby is free, but you'll need an Internet connection to download it if you don't already have it.

The directions are a little different depending on which kind of computer you have, so ask your adult if you're not sure!

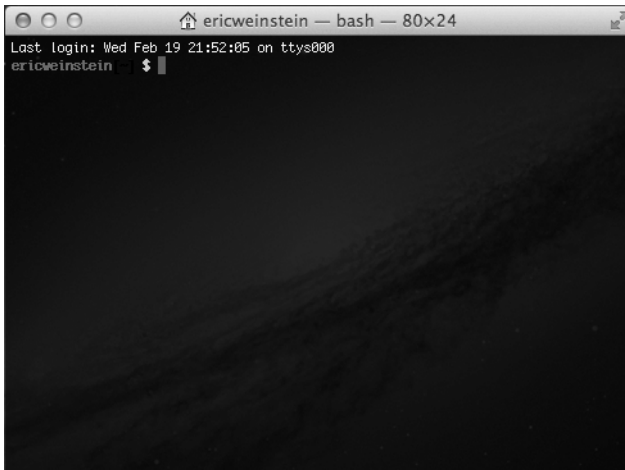
If you're running Windows, skip ahead to page 6.

## Installing on Mac or Linux

First, let's check to see if you already have Ruby installed. If you're on a Mac or a computer running Linux, you can check to see which version of Ruby you have on the *command line*—this is where you'll be typing your Ruby programs.

The command line is probably very different from the way you usually use your computer (clicking icons and moving things with your mouse), but once you get used to it, the command line can be much faster and easier.

On a Mac or Linux computer, your command line is in an application called *Terminal*. Find your Terminal application and open it. You should see something like this:



Once you've got the Terminal open, go ahead and type the following line (you don't need to type the dollar sign—just the `ruby -v` bit) and press ENTER:

---

```
$ ruby -v
```

---

If Ruby is installed, you'll get back something like this:

---

```
ruby 2.0.0p247
```

---

If you get this response and it includes 2.0.0, you're all set! Skip ahead to "Achievement Unlocked: Ruby Installed!" on page 8. If you get a number other than 2.0.0 (for instance,