Chapter 2. Getting Started with Terraform

In this chapter, you're going to learn the basics of how to use Terraform. It's an easy tool to learn, so in the span of about 40 pages, you'll go from running your first Terraform commands all the way up to using Terraform to deploy a cluster of servers with a load balancer that distributes traffic across them. This infrastructure is a good starting point for running scalable, highly available web services. In subsequent chapters, you'll develop this example even further.

Terraform can provision infrastructure across public cloud providers such as AWS, Azure, Google Cloud, and DigitalOcean, as well as private cloud and virtualization platforms such as OpenStack and VMware. For just about all of the code examples in this chapter and the rest of the book, you are going to use AWS. AWS is a good choice for learning Terraform because of the following:

- AWS is the most popular cloud infrastructure provider, by far. It has a 32% share in the cloud infrastructure market, which is more than the next three biggest competitors (Microsoft, Google, and IBM) combined.[1]

- AWS provides a huge range of reliable and scalable cloud-hosting services, including Amazon Elastic Compute Cloud (Amazon EC2), which you can use to deploy virtual servers; Auto Scaling Groups (ASGs), which make it easier to manage a cluster of virtual servers; and Elastic Load Balancers (ELBs), which you can use to distribute traffic across the cluster of virtual servers.[2]

- AWS offers a Free Tier for the first year that should allow you to run all of these examples for free or a very low cost.[3] If you already used