patterns, best practices, problems, and failure modes are well understood? Or is this a new technology where you'll have to learn all those hard lessons from scratch? Table 1-3 shows the initial release dates, current version numbers (as of June 2022), and my own subjective perception of the maturity of each of the IaC tools.

Table 1-3. A comparison of IaC maturity as of June 2022

	Initial release	Current version	Perceived maturity
Chef	2009	17.10.3	High
Puppet	2005	7.17.0	High
Ansible	2012	5.9.0	Medium
Pulumi	2017	3.34.1	Low
CloudFormation	2011	???	Medium
Heat	2012	18.0.0	Low
Terraform	2014	1.2.3	Medium

Again, this is not an apples-to-apples comparison: age alone does not determine maturity—neither does a high version number (different tools have different versioning schemes). Still, some trends are clear. Pulumi is the youngest IaC tool in this comparison and, arguably, the least mature: this becomes apparent when you search for documentation, best practices, community modules, etc. Terraform is a bit more mature these days: the tooling has improved, the best practices are better understood, there are far more learning resources available (including this book!), and now that it has reached the 1.0.0 milestone, it is a considerably more stable and reliable tool than when the first and second editions of this book came out. Chef and Puppet are the oldest and arguably most mature tools on this list.

Use of Multiple Tools Together