



The jq Cookbook

Dorian Pula

Aug 27, 2021

CONTENTS

1	Introduction	1
1.1	About the Author and the Book	2
1.2	The Audience	2
1.3	Conventions	2
1.4	Exercises and Examples	3
1.5	Reader Feedback	3
1.6	Credits	3
2	Getting Started	5
2.1	Rationale for using jq	5
2.2	Installation of jq	6
2.2.1	Linux and BSD	6
2.2.2	Mac OSX and Windows	6
2.3	TODO: Playing with jq Online	6
2.4	Checking the Setup	7
2.5	Getting Help	7
3	Querying JSON	9
3.1	TODO: Basic Filters	9
3.2	TODO: Traversing a JSON object via Filters	10
3.2.1	Exercises	10
3.3	TODO: Traversing Array and Looping	10
3.3.1	Exercises	10
3.4	TODO: Using Filters	10
3.4.1	Exercises	10
4	TODO: Formatting	11
4.1	Basic Formatting Options	11
4.2	Compact Formatting	11
4.3	Sorting Keys	11
5	TODO: Using with REST APIS	13
5.1	Getting a CLI HTTP Utility	13

5.1.1	Installing httpie	13
5.1.2	Installing curl	14
5.2	Translating between httpie and curl	14
5.3	Checking the Setup	15
6	TODO: Working with YAML, XML and TOML	17
6.1	Working with YAML	17
6.2	Working with XML	17
6.3	Working with TOML	17
7	TODO: Advanced Usage	19
7.1	Manipulating JSON	19
7.1.1	Exercises	19
7.2	Summation	19
7.2.1	Exercises	19
7.3	Using jq in Code	19
8	Reference	21
8.1	Querying	21
8.2	Manipulation	21
9	Appendix A - Installing the Necessary Tools	23
9.1	jq	23
9.2	curl	23
	Index	25

2.2 Installation of jq

Thankfully jq comes in as a single binary, without any runtime dependencies. This makes installing the utility pretty simple. Below I outline the process of getting jq setup on a few different systems.

2.2.1 Linux and BSD

jq comes pre-packaged on a number of modern Linux and BSD-based systems. If you feel up for it, you could install it from source. But for most people grabbing the current maintained binary package of jq is good enough.

- On Ubuntu or Debian: `sudo apt install jq`
- On Fedora, Red Hat or CentOS: `sudo dnf install jq`
- On openSUSE: `sudo zypper install jq`
- On BSD: Use [FreshPorts](#) and `pkg install jq`

2.2.2 Mac OSX and Windows

Both [Mac OSX](#) and [Windows](#) binaries are available from the [jq site](#). With Mac OSX you can also use [Homebrew](#) to install jq:

```
brew install jq
```

2.3 TODO: Playing with jq Online

If you would prefer to try jq before installing it locally, you can try out [jq Play](#) - an online sandbox for jq. You will need to copy-and-paste the example JSON into the input area on the site.

Todo: Create a graphical guide for this.

2.4 Checking the Setup

Before we continue on with the examples of working with `jq`, let's make sure that everything works correctly:

- Open up your command-line terminal.
- Run `jq --version` and you should get something like below. While I am using version 1.5.1 for the book, the examples should work for any version of `jq` that is later than 1.1 and less than a future 2.0 version.

```
$ jq --version
jq-1.5-1-a5b5cbe
```

- Change current working directory to the path of where you unzipped the companion JSON archive to.

```
cd path/to/examples
```

- Transform the `hello-world.json` files using `cat` and `jq`.

```
cat hello-world.json | jq
```

If you get the following output, then you should be good to go for the rest of the book:

```
{
  "hello": "World!"
}
```

2.5 Getting Help

Before jumping into querying, I want to mention a few ways to get help when using `jq`. You can find a reference section with common usages at the end of this book.

Another good resource is [the manual on the jq project page](#).

As with any good UNIX CLI utility, `jq` comes with its own help in two formats: the CLI arguments help screen and a comprehensive man page.

You can invoke the help screen by running `jq` with the `--help` (or `-h`) argument:

```
jq --help
```

Also you can access the UNIX man page using: `man jq`. The man page is quite comprehensive, as it includes much of the manual documentation available on the `jq` project's website.

