

Please do a bit of prep in the lead up to Cloud/Rainstorm in December. Here are four things that will help make the day more fun:

1. **TDD** - What is it? It is "Test Driven Development", also it is "Test Driven *Design*". That is because each test that you *begin with* makes you think about what you are going to need even *before* you write the code that come *from* responding to that test.

[This Martin Fowler blog post](#) is an *excellent* place to get a start on "red, green, refactor" (read the post and the link to Kent Beck's XPE2 in that post to understand more deeply).

If you attend a STEAM school, there is a good chance the school library has this book (and others by Beck and Fowler). If you are lucky, they are available online at no cost. If they don't have them, you might suggest that they get them.

2. **Four Rules of Simple Design** - Another [collaboration between Fowler and Beck](#) \*

1. Passes the tests
2. Reveals intention
3. No duplication (DRY)
4. Fewest elements

3. [Cyber-Dojo.org](#) - Completely free to individuals and groups: yes that includes *you* and your *school*.

It a practice area design to eliminate the hassle of downloading, installing, and configuring a development environment (the language environment plus an **integrated development environment** (IDE). Examples of those would be the Java SDK + IntelliJ, or the .NET Framework and VSCode.

Cyber-Dojo is *entirely* browser-based and offers 30 different languages, every one of which is already installed and ready to go with *at least one* testing framework; most have multiple testing frameworks to choose from. This friction-free environment allows you explore easily different languages, different testing frameworks, and different "[katas](#)" (programming exercises).

This is the platform we will be using for Cloud / RainStorm next weekend. If you are wondering, yes, this the same platform I use frequently to train professional developers.

4. **Zoom** - If you are new to using the Zoom client, please download and install the [actual client](#) before next weekend. You do not want to fiddling with the on the day of your class). Also, if you are new to Zoom, I recommend you view some of the [excellent videos](#) they provide to familiarize yourself with the program. The time spent will make the day much more enjoyable.

*Do not plan* to "attend" the class using only your phone. That is a non-starter. This is a *participatory* class where you will be on the keyboard writing code, with others, in rotation.

\* If you are wondering why I keep pointing you at [Martin Fowler](#) and [Kent Beck](#) it's because they were (and are) key players in *inventing* most of eXtreme Programming practices and have literally *written the book* (multiple books) that are consider the go to books on the subject. You can also find their talks on various video platforms like YouTube.