Java Koans

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Please read through the entire document before proceeding.

A *koan* is a "teaching question" that is used in Buddhist discourse that seeks to provide deep insight into a problem. While the answer to a koan can be subtle, they are not meant to be tricky like a puzzle is. Koans have correct answers, but the intention of working through a koan is to understand its deeper meaning.

To gain a better understanding of the Java programming language, you will work through a series of Java koans while simultaneously learning to program the robot. Each koan is a small piece of code (about the size of a unit test) that demonstrates a particular feature or aspect of the Java language or API. The koans were originally authored by Mat Bentley and can found here: https://github.com/matyb/java-koans.

Prerequisites needed

- Git - Note we do not use the github desktop app

- Eclipse-Oxygen

- Account on Github

We will use git to track your progress in the koans, much like the way we manage changes on the robot as a group.

Make sure you have Java installed. If you don't have it, go ahead and install Eclipse (the IDE we use to program the robot), this will take care of installing Java for you.

Next, go ahead and download master.zip. Unzip it to a suitable location. Open up eclipse and import the gradle project.

In a windows cmd prompt, I prefer powershell (Windows key + r, type: powershell), navigate to where you unzipped the master.zip file. See below (ant replace the $< >$ with your own info).

```
cd C:\Users\<username>\<folder>\java-koans-master\koans
git init
git add .
git commit -am "Initil commit of my Java Koans!"
```

Start the application (in the cmd prompt) and it will instruct you what to do, giving you feedback as you complete the koans (modify code in Eclipse). In powershell, type:

    run.bat

The objective of the koans is not complete them as fast as you can. In fact, it is pretty easy to reverse engineer the solutions. However if you do that, you're missing the point. I recommend that you work on the koans a little bit every day to gradually build up an understanding of the Java language. I also encourage you ask questions about the koans and share your insights with the rest of the team on the **forum**

Troubleshooting

Ensure your variable PATH is set for java See **here** for more instructions

Please note any trouble that you have getting started to me (David), or post a comment on github