

# INTRODUCTION TO COMPUTER SCIENCE II

## LAB 3

### Towers of Hanoi w/ Ring objects

We create our first class of objects, all within a familiar chunk of code.

## 1 Objectifying the rings

We shall remain with the *Towers of Hanoi* puzzle, but this time with a small twist. In the previous lab, the rings were represented a primitive `int` values. This time, I have changed the code in `Towers.java` to assume the existence of `Ring` objects. Each such object stores its own size and has some very simple capabilities.

## 2 Getting started

If you are doing your work on `remus/romulus`, login with Remote Desktop, open a terminal window, create a directory for your work, and change into it. Next, grab the initial source code for this assignment:

- **On `remus/romulus`:** Copy the source code with the following command...

```
$ cp ~sfkaplan/public/COSC-112/lab-3/Towers.java .
```

- **On your own computer:** Download the source code by clicking [here](#).

Examine the code in `Towers.java`. Pay special attention to the way `Ring` objects are created and used. Specifically, each `Ring` is assumed to have the following methods:

1. A **constructor** that is passed the size of the ring being created.
2. A **`getSize()`** method that returns the size of the ring on which it is called.
3. A **`print()`** method that can print the pattern that represents an individual ring within the puzzle.

Notice, throughout the `Towers.java` code, how these methods are used.

## 3 Your assignment

**Write the `Ring` class.**

## 4 How to submit your work

Use the CS submission systems to submit your work. Specifically, you will need to submit your `Ring.java` file. You may use either of the following two methods, while connected to `remus` or `romulus`, to use the submission system:

- **Web-based:** Visit the submission system web page.
- **Command-line based:** Use the `~lamcgeoch/submit` command at your shell prompt.

**This assignment is due on Sunday, Oct-02, 11:59 pm.**