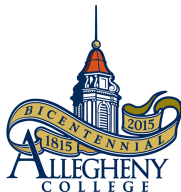# CMPSC 112

Lecture 1: Programming in Java, Part 1

Dr. Aravind Mohan

Allegheny College

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Last Time

- Syllabus
- Course policies
- How this all works
- Course structure preview
- Reminder: MASTERY QUIZ

Java Basics

- Terminal
- Editor
- Your choice, as long as I can compile it. For example, I use pico or vim.
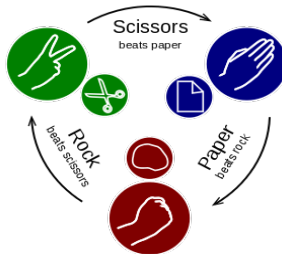
```java
public class RPS1 {
  public static void main(String[] args) {
    System.out.println("This is a game!");
  } //main
} //RPS1 (class)
```

- Save (:w) & Compile (javac) & Run (java)

Try out

- Simple Hello World Program
- First Variation of Hello World Program
- Second Variation of Hello World Program

Rock-paper-scissors Simulator

- Rock beats scissors
- Scissors beats paper
- Paper beats rock

Functions

- What does our program need to do?
    - Keep track of scores
    - Play a round
    - Get input from user
    - Pick a sign for the computer player
    - Pick a round winner
    - Print scores
    - Decide to play again
- <access control> <static?> <return type> <name> (<parameters>)

- public static int roundWinner(String u, String c)

To Do

- Let us think how to design this program
- My Initial Design (RPS.java)

Loops

- for, while, and do-while
- All three are essentially functionally equivalent
    - One is good for an unknown number of iterations, and is also guaranteed to run once
    - One is good for an unknown number of iterations, and is not guaranteed to run once
    - One is good for a known number of iterations

Wrapping Up for Today

- Passing variables into functions
    - Variable order
    - Variable naming

Any Questions

- Reminder: REVIEW FORM
  (Not mandatory to fill this every week. But this is an opportunity
  for you to interact with me. I appreciate any feedback or
  comments, so that we can make this class more productive and
  interesting. Thanks !)