

Computer Science 136

Data Structures

Lecture #1 (September 10, 2021)

Notes:

1. Introductory stuff.
 - (a) Syllabus. Workflow. Expectations.
 - (b) Honor code.
 - (c) TA hours begin Monday. Office hours: soon.
 - (d) Questions?
2. Java's first program, in `First.java`:

```
public class First
{
    public static void main(String[] args)
    {
        System.out.println("Hello, world.");
    }
}
```

All these words serve a purpose:

- (a) `First`, `main`, `args`.
- (b) `public`.
- (c) `static`.
- (d) `void`: A non-value. `main` does not return any value.
- (e) `String`.
- (f) Other items of note: various delimiters.

3. Running a program:

- (a) Writing the Java *source code* in a file. I'll use emacs. You can too.
- (b) *Compiling* (translating) source to "object" or *class* format, using `javac`:

```
javac First.java
```

Generates a class file, `First.class`.

- (c) *Executing* class files using `java`:

```
java First
```

Generates moving gears.

4. Using for loops, two ways:

- (a) Iterated form:
`for (<variable> : <iterable object>)`
- (b) Traditional form:
`for (<init> ; <test> ; <increment>)`

5. For Monday, start reading!