

The background of the slide is a grayscale image of a circuit board. It features a complex network of black lines representing traces and several solid black circles representing vias or components. The circuitry is arranged in a somewhat symmetrical, horizontal pattern. A solid black horizontal band runs across the middle of the image, partially obscuring the circuit board design. In the center of this dark band, the text 'CMSC 131' is displayed in a large, white, sans-serif font. Below it, the text 'Fall 2018' is written in a smaller, green, monospace-style font.

CMSC 131

Fall 2018

Announcements

- First project (Hello World) has been posted. If you're stuck, come to office hours
- No classes Monday (Labor Day)
- Lab session on Tuesday is “extended office hours”.
- Slides are being posted on class web page (“Schedule”)

Programming Languages

- What is “Machine Language”?

Example:

```
1000011 10100000 01100100
```

“Add the value 100 to register EAX”

- What is “Assembly Language”?

Example:

```
ADD EAX, 100
```

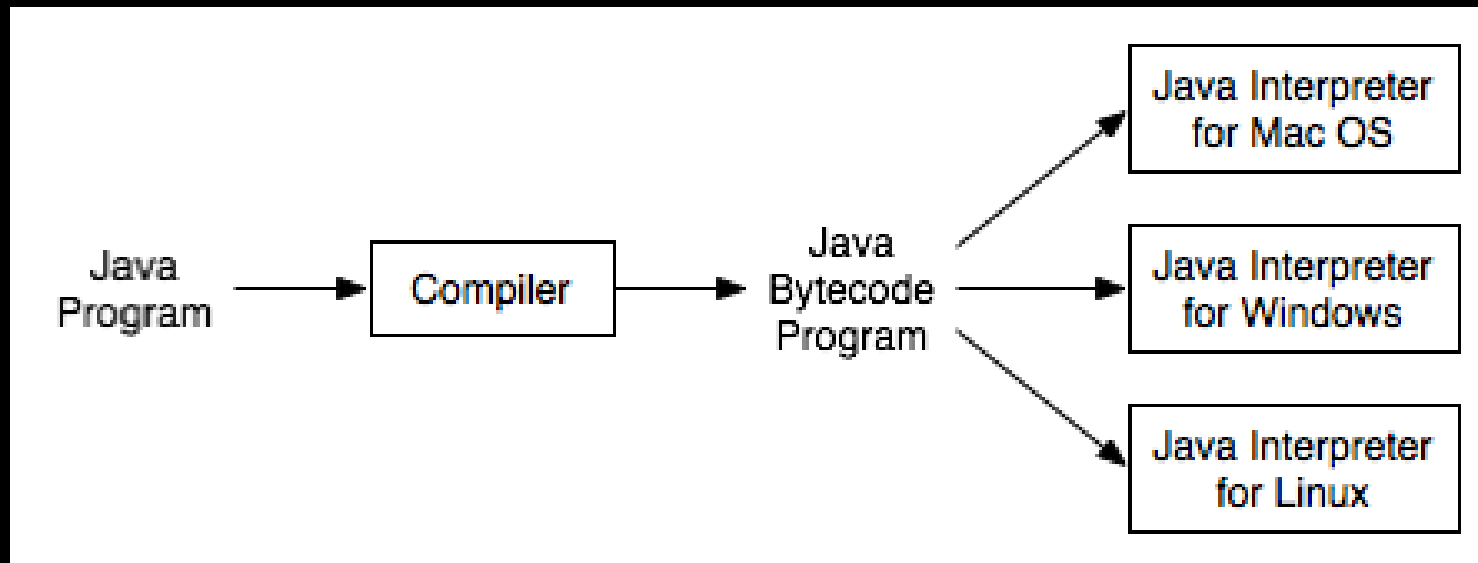
Continue: Higher Level Languages

Some “historically interesting” languages:

- Fortran
- Cobol
- Lisp
- Pascal
- C
- C++
- Java
- Python
- Ruby

Translating High Level Code to Machine Code

- Compiler
- Interpreter
- How does Java do it?



Why Java for CMSC131?

- Popularity in industry
- Designed for “Object Oriented” approach
- Portable
- Extensive and modern libraries
- Good for beginners
 - Static typing
 - garbage collection
 - Not too many “sharp edges”

Preliminary Remarks

- All coding examples will be posted to your CVS repository
- Initial examples are “procedurally oriented” not “object oriented”
- We’re going to start very slowly!
- We will have to leave out some details at first.
- Don’t be afraid to try “experiments” on your own!

Vague Definitions (for now..)

First, let's loosely define these terms:

- Object
- Class
- Method
 - Main method
- Statements