Setup for Buffer Overflow Lab

Today: tools that you'll find useful

Friday: complete the lab

Some Useful Command-Line Tools

```
file

xxd

strings

nm

otool -tV

objdump -d
```

Compile and Decompile Resources

You don't need these for the buffer overflow lab, but they're fun to try out

`https://godbolt.org/`

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Compilation Flags

Compile with `--target=macos-x86_64` for 64-bit x86

Compile with `-g` to enable debugging information:

- then LLDB can show source while stepping
- also, LLDB expressions can refer to local variables

LLDB

Start a debugging session:

```
$ lldb a.out
(lldb) run
```

Some useful LLDB commands:

- `b` *expr* — set a breakpoint
- `c` — continue from a breakpoint
- `s` — step one C expression
- `si` — step one machine code instruction
- `p` *expr* — print the value of an expression
- `p/x` *expr* — print in hexadecimal

Use `$rsp` to get the value in RSP, such as in

```
(lldb) p/x $rsp
```

and similar for other registers