Libraries

Class 11

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Announcements

- Debug assignments due April 5

- Libraries assignments due April 12

- Projects due at the end of April 18

- Last time to submit assignments will be April 27 11:59 PM EDT, full stop.
  - I will be running the scripts to calculate and bundle grades for WolverineAccess after

- Will be posting category totals
  - Will be updated as assignments get graded

  - Plan on having a special `eecs201-test` command update it for you

Review

- Static libraries go directly inside the executable
    - Libraries are an inherent part of the executable

- Dynamic/shared libraries are referred to by the executable
    - Libraries are loaded at load/runtime

Review

- Really easy to link a library

- Toss `-lname` at the end of compilation command
  - `-lpng` for `libpng.so` or `libpng.a`
  - `-lm` for `libm.so` or `libm.a`

- (Linux) `-l:libname.a` is an explicit way to specify library file to link

- `-Ldir` can specify additional directories to look for libraries
  - You can also link against a library by providing the path to the library file as an argument (particularly useful for static libraries)

- Creating a library
  - Create object code with `-c`
  - Dynamic object code requires `-fPIC` flag
  - Static: `ar rcs libname.a file.o`
  - Dynamic: `gcc -shared -o libname.so file.o`

Q&A

Basic assignment