

322 Compilers Assignment: 2-test

Register allocation, testing the L2 compiler

Your job: Write (at least) 15 test L2 programs and equivalent L1 programs.

Hand in your assignment by uploading it to the server at <http://penghu.eecs.northwestern.edu:8123/>. The uploaded file should be a gzipped tar file named `name.2-test.tar.gz`. The `name` should be your family name in all lowercase letters (except for the names He, Liu, or Wang, see below) unless you are pair programming, in which case it should be both family names in alphabetical order, separated by `+`. If your name has any non-alphabetic characters, remove them first. For example, if Conan O'Brien and Shawn Knowles-Carter were pair programming and handing in this assignment, they'd send in a tarfile named `obrien+kowlescarter.2-test.tar.gz`. If your family name is He, Liu, or Wang, then include your first name as well, but also without any spaces. For example, if your name is Liu Bolin, then use `bolinliu` as your name. And if Bolin and and Shawn team up, they'd submit `bolinliu+kowlescarter.2-test.tar.gz`.

The file must contain a single directory named `2-test` containing the test cases.

The directory should contain triples of files, an input file with the suffix `.L2`, a equivalent output file with the suffix `.L1`, and a file with the suffix `.in` that contains the sequence of bytes to supply to the program when using the program as a test case. The `.L1` file does not have to match exactly what your compiler ends up producing, but the two programs should behave equivalently in the two interpreters. If the `.in` file is not present, the input stream will be empty (and thus each call to `read` will produce `1` (encoded `0`)). Note that the programs should behave equivalently on all inputs; the `.in` file is merely one example input.

If the L2 program cannot be register allocated, then the L1 file must contain the text:

```
"could not register allocate"
```

(including the quotes)