

实验（3）：IR 生成器

20337025 崔璨明

实验过程

这次实验需要阅读大量的资料，以及了解llvm::Builder中有什么样的函数可以调用，这花费了我大量的时间，即便如此，实验的过程中也还会遇到各种困难。总而言之，这是实验是一个非常大的挑战。

自动评测结果

通过了本地的所有测例：

```
NAME                                #N DIRECT CALLS
-----
sysu_putchar                        2
llvm.memset.p0i8.i32               2
llvm.memcpy.p0i8.p0i8.i64         2
wk_puts                             1
-----

Compile Finish.
[453/454] clang -O3: 0us, ret 31
warning: overriding the module target triple with x86_64-pc-linux-gnu [-Woverride-module]
1 warning generated.
[453/454] sysu-lang: 0us, ret 31

/454] sysu-lang: 0us, ret 216\n", {"name": "tester/h_functional/105_long_array2.sysu.c", "score": 1, "max_score": 1, "output": "Compile Finish.\n[440/454] clang -O3: 0us, ret 0\n[441/454] sysu-lang: 0us, ret 0\n", {"name": "tester/h_functional/106_long_code.sysu.c", "score": 1, "max_score": 1, "output": "Compile Finish.\n[442/454] clang -O3: 0us, ret 0\n[443/454] sysu-lang: 0us, ret 0\n", {"name": "tester/h_functional/109_many_params2.sysu.c", "score": 1, "max_score": 1, "output": "Compile Finish.\n[443/454] clang -O3: 0us, ret 0\n[443/454] sysu-lang: 0us, ret 0\n", {"name": "tester/h_functional/110_many_params3.sysu.c", "score": 1, "max_score": 1, "output": "Compile Finish.\n[444/454] clang -O3: 0us, ret 0\n[444/454] sysu-lang: 0us, ret 0\n", {"name": "tester/h_functional/111_many_globals.sysu.c", "score": 1, "max_score": 1, "output": "Compile Finish.\n[445/454] clang -O3: 0us, ret 0\n[445/454] sysu-lang: 0us, ret 0\n", {"name": "tester/h_functional/112_many_locals.sysu.c", "score": 1, "max_score": 1, "output": "Compile Finish.\n[446/454] clang -O3: 0us, ret 0\n[446/454] sysu-lang: 0us, ret 0\n", {"name": "tester/h_functional/113_many_locals2.sysu.c", "score": 1, "max_score": 1, "output": "Compile Finish.\n[447/454] clang -O3: 0us, ret 25\n[447/454] sysu-lang: 0us, ret 25\n", {"name": "tester/h_functional/114_register_alloc.sysu.c", "score": 1, "max_score": 1, "output": "Compile Finish.\n[448/454] clang -O3: 0us, ret 194\n[448/454] sysu-lang: 0us, ret 194\n", {"name": "tester/h_functional/115_nested_calls.sysu.c", "score": 1, "max_score": 1, "output": "Compile Finish.\n[449/454] clang -O3: 0us, ret 250\n[449/454] sysu-lang: 0us, ret 250\n", {"name": "tester/h_functional/116_nested_calls2.sysu.c", "score": 1, "max_score": 1, "output": "Compile Finish.\n[450/454] clang -O3: 0us, ret 0\n[450/454] sysu-lang: 0us, ret 0\n", {"name": "tester/h_functional/117_nested_loops.sysu.c", "score": 1, "max_score": 1, "output": "Compile Finish.\n[451/454] clang -O3: 0us, ret 38\n[451/454] sysu-lang: 0us, ret 38\n", {"name": "tester/mizuno_ai/mizuno_ai.sysu.c", "score": 1, "max_score": 1, "output": "Compile Finish.\n[452/454] clang -O3: 0us, ret 31\n[452/454] sysu-lang: 0us, ret 31\n", {"name": "tmp.sysu.c", "score": 1, "max_score": 1, "output": "Compile Finish.\n[453/454] clang -O3: 0us, ret 31\n[453/454] sysu-lang: 0us, ret 31\n"}}}
root@3d2f3b2b0e0c:/workspace/Sysu-Lang#
```

线上评测结果

提交详情 (#371)

测试报告

提交文件

回到作业详情

回到课程页面



测试报告

排行榜分数

performance 0.19412671151290828

score 636

提交排行

提交 ID	提交时间	得分	操作
371	2023-05-23 19:40:56	636 / 647	 

遇到的困难

在测例 `95_float.sysu.c` 中碰到了 `fail: not equ` 的bug，发现是我做浮点数比较时，先将其转化为整数类型再就行比较了，这导致两个很小的浮点数都会变为0再比较，永远相等，延期了一个星期，终于将其解决。

感想

这次实验的难度很大，希望之后的实验能有更多的提示与指导。