



Compiler Construction

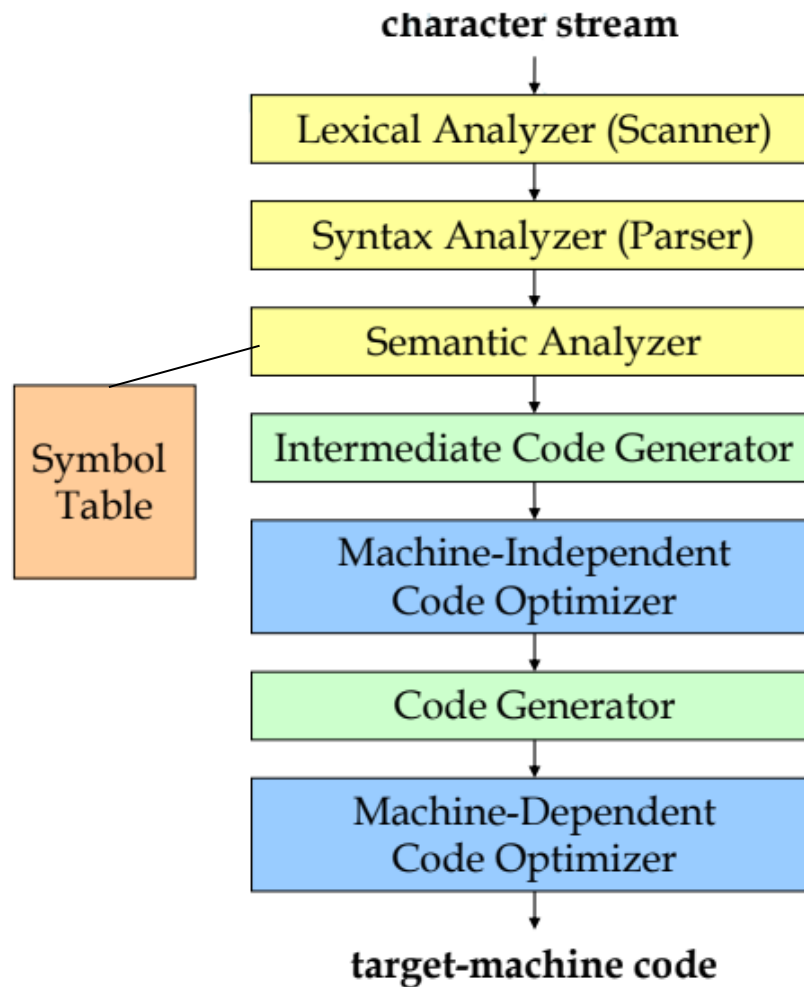
Programming Assignment 1

μ Go Language Lexical Definition



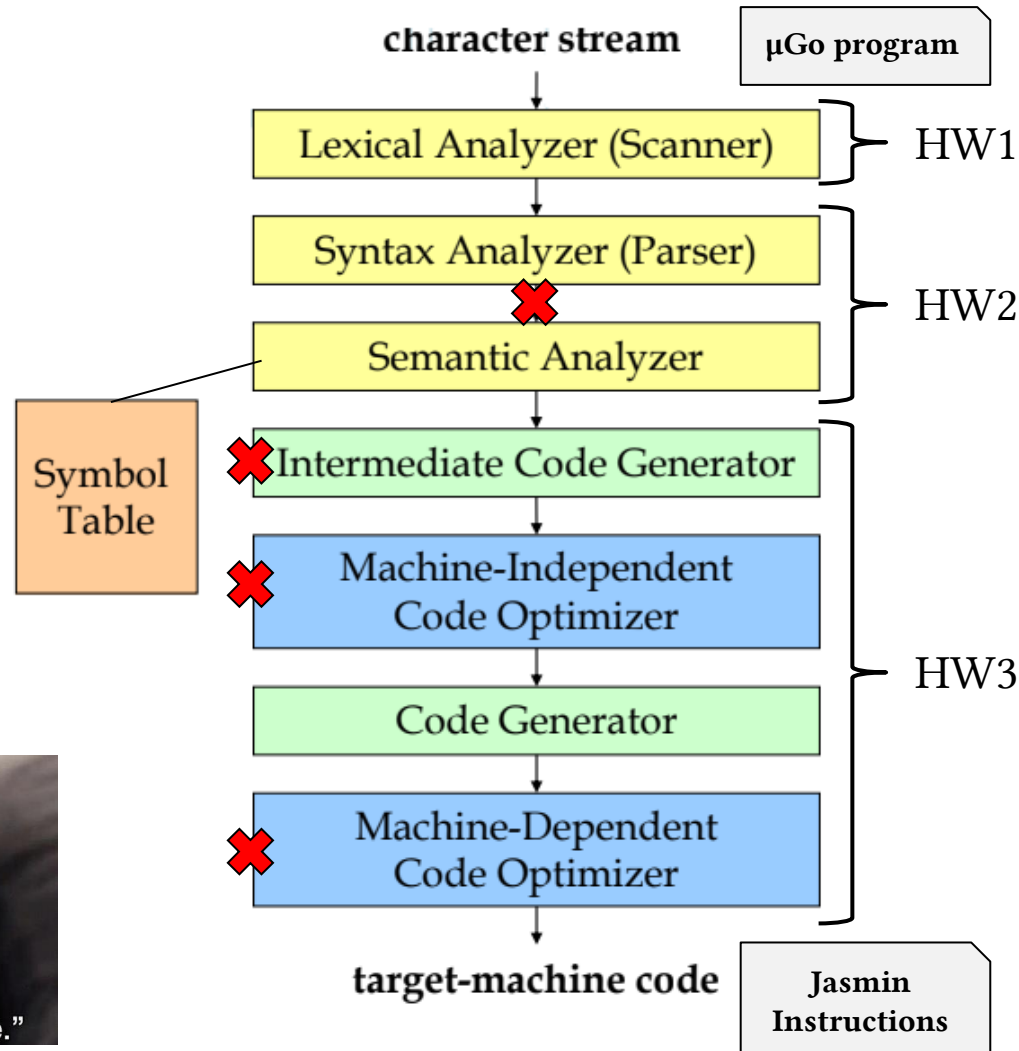


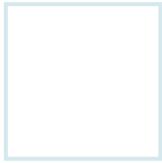
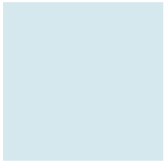
Project Outline





Project Outline





Features of μ Go Language

- No semicolons (;) at the end of a line of code.
- No parentheses for **if** and **for** statements.
- C's **while** is spelled **for** in μ Go.
- C's **int/float** is spelled **int32/float32** in μ Go.
- μ Go is a *static type* and *strong type* language.

```
var x int32 = 0

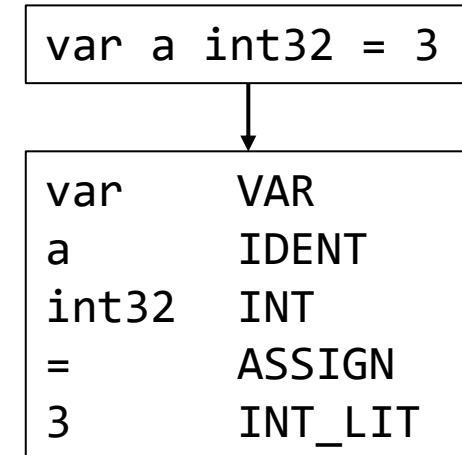
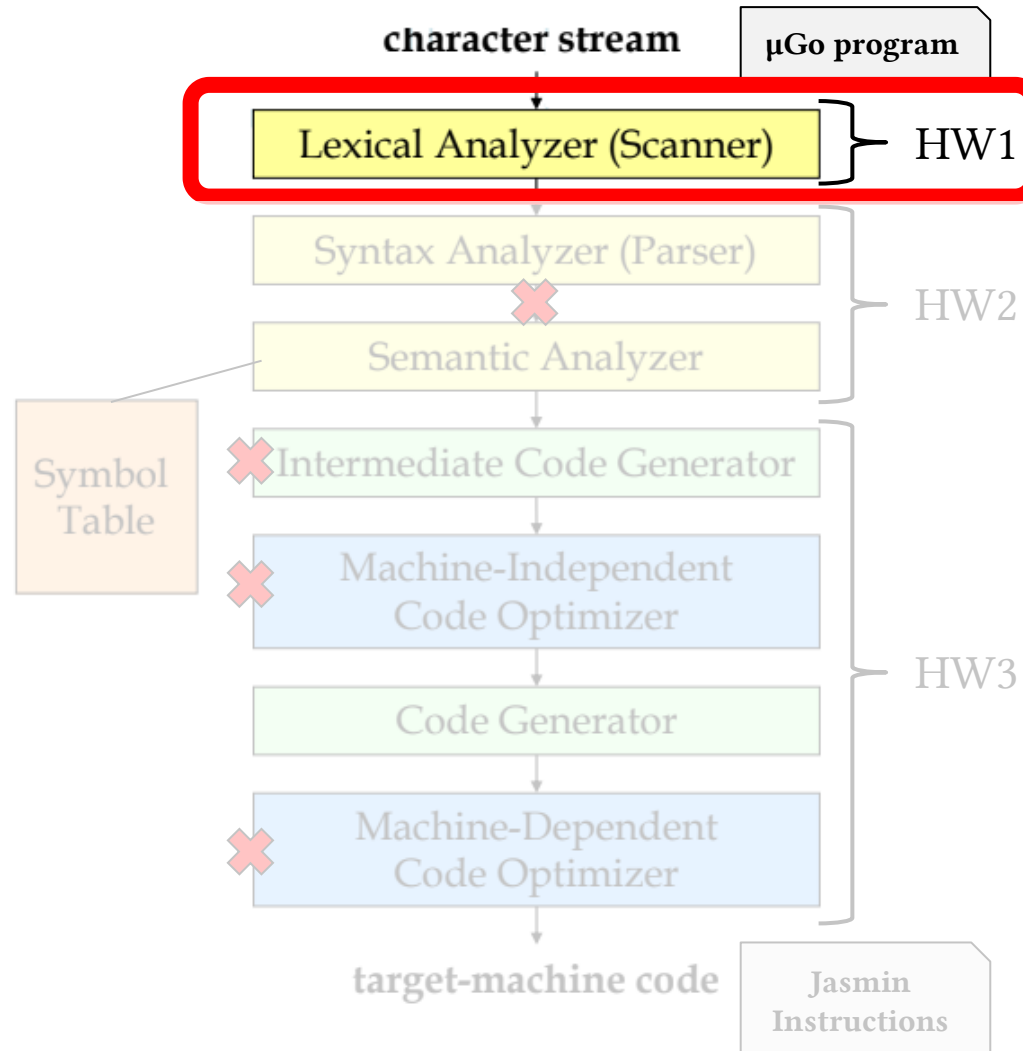
if x == 1 {
    println("Hello world")
} else {
    println("Hello, mother father")
}
```

```
var x int32 = 10

for x > 0 {
    println("Ou0")
    x--
}
```



Project Outline





Assignment Requirements

- Each test case is 10pt and the total score is 110pt.
- You can judge your code locally with the attached judger.

```
$ ls
judge/ compiler_hw1.l judge.conf Makefile
$ python3 judge/judge.py
```

Sample	Accept
in01_arithmetic	✓
in02_conversion	✓
in03_relational	✓
in04_assignment	✓
in05_declaration	✓
in06_if	✓
in07_if_else	✓
in08_for	✓
in09_comment	✓
in10_print	✓
in11_monster	✓

Correct rate: 100.0%
Obtained/Total scores: 110.0/110

```
// "Hard Coding" will get 0pt.
main() {
    result = read(answer_file);
    print(result);
}
```



Environment Setup

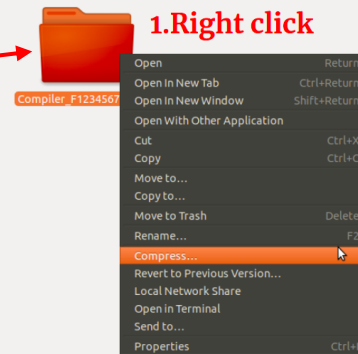
- For Linux
 - Ubuntu 18.04 LTS
 - Install dependencies : **\$ sudo apt install flex bison**
- For Windows (VirtualBox)
 - You may like to install VirtualBox to emulate the Linux environment



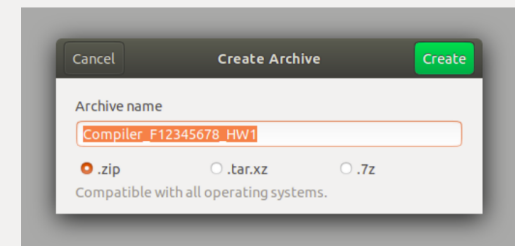
Submission

- Upload your homework to Moodle.
- The expected arrangement of your codes:
 - Only **.zip** and **.rar** types of compression are allowed.
 - The directory should be organized as:

```
Compiler_StudentID_HW1.zip/  
├── Compiler_StudentID_HW1/  
│   ├── compiler_hw1.1  
│   └── Makefile
```



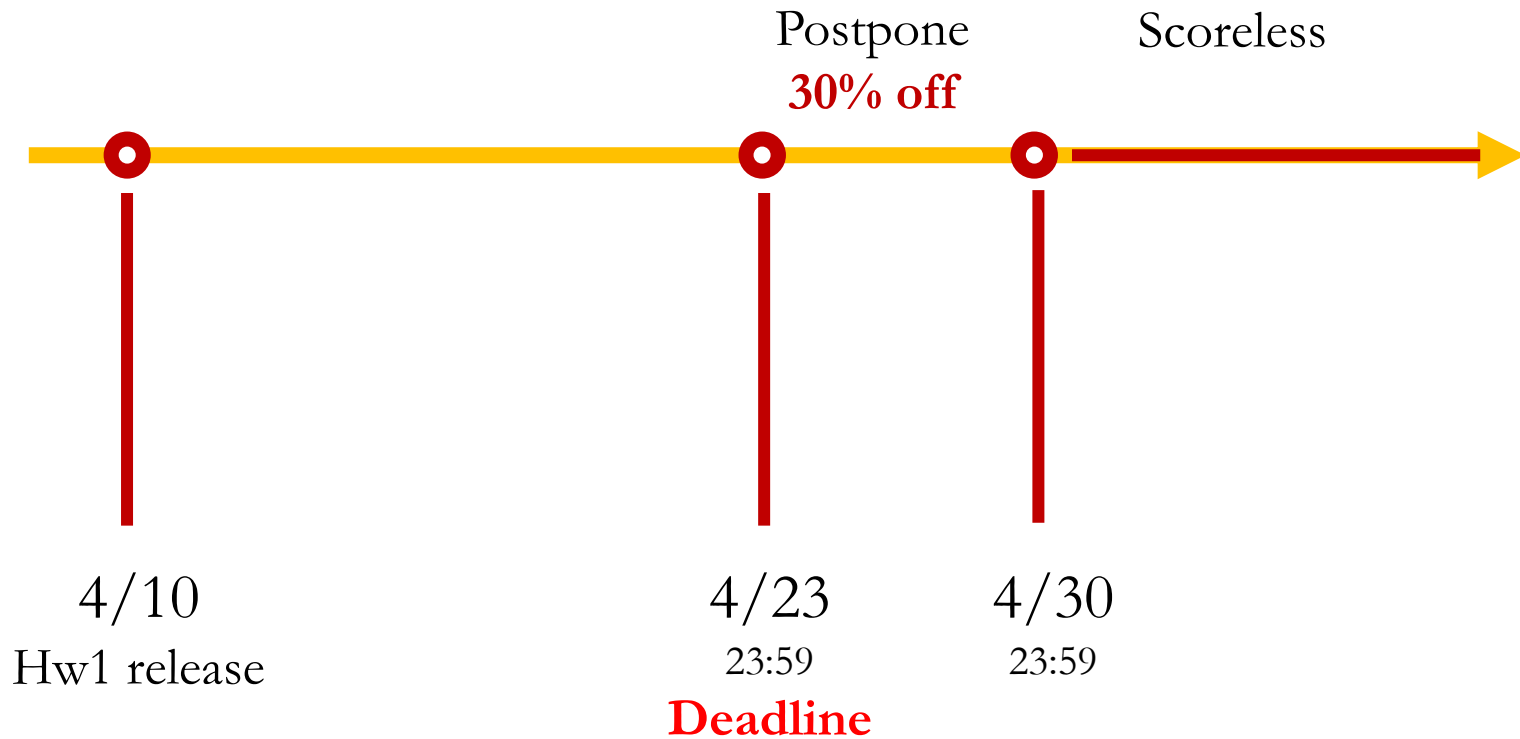
3.Click "Create"



- You will lose 10pt if your programs were uploaded in incorrect format!!!



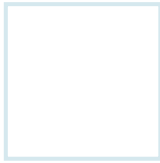
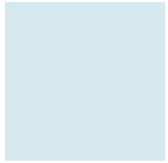
Deadline





How to Mail TAs

- Send mail to asrlab@csie.ncku.edu.tw, not any TA's mail!!
- Email subject starts with “[Compiler2020]”



QUESTIONS ?