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# Compiler Construction Lab 4

## Task 1

### Update:

<, >, = are added in operator section as follows

### test25.l.txt:

```
%%  
  
(("if"|"then"|"begin"|"end"|"procedure"|"function")) {printf("A keyword: "); ECHO;  
printf("\n\n");}  
  
([+/*=<>]) {printf("An Operator: "); ECHO; printf("\n\n");}  
  
([\n\t" "]) {}  
  
(((0-9)+)(.[0-9]+)?) {printf("A number: "); ECHO; printf("\n\n");}  
([a-z]+[0-9a-zA-Z]*) {printf("An id: "); ECHO; printf("\n\n");}  
  
. {printf("Unrecognized character: "); ECHO; printf("\n\n");}  
%%  
  
int main(int argc, char **argv)  
{  
  
if(argc>1)  
yyin=fopen(argv[1],"r");  
else  
yyin=stdin;  
yylex();  
  
}
```

## Output:

```
scolopendra@scolopendra-bytes:~/Local Disk Egg/University/Debian Semester 7/Compiler Construction/Labs/Lab 4/Lab 4 Files$ flex test25.l.txt
scolopendra@scolopendra-bytes:~/Local Disk Egg/University/Debian Semester 7/Compiler Construction/Labs/Lab 4/Lab 4 Files$ gcc lex.yy.c -lfl
scolopendra@scolopendra-bytes:~/Local Disk Egg/University/Debian Semester 7/Compiler Construction/Labs/Lab 4/Lab 4 Files$ ./a.out
if 5 > 92
A keyword: if

A number: 5

An Operator: >

A number: 92
```

## Task 2

### Improvement:

The flex specification are too simple, like the arithmetic and relational operators are mentioned together in the recent update. Also even all the keywords weren't used in specifications, symbol table might be a good choice to keep all keywords in and then used the keywords from there to specify keyword label.