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Design of Compilers
Lab 1

Crafting a Compiler

1.11

MOSS differs from other approaches in detecting plagiarism because it relies on similarity scores to judge the amount of matching between different programs. Furthermore, it doesn't tell the user what is plagiarized, it tells them what parts of the programs are similar and lets the user decide.

3.1

```
keyword main
openParen
closedParen
openBracket
type const
type float
identifier payment
assignment =
floatdcl 384.00
endLine ;
type float
identifier bal
endLine ;
type int
identifier month
assignment =
int 0
endLine ;
identifier bal
assignment =
int 15000
endLine ;
keyword while
openParen
identifier bal
operator >
int 0
closedParen
openBracket
keyword printf
openParen
openQuote
char M
char o
```

char n
char t
char h
char :
char \space
char %
char 2
char d
char \space
char B
char a
char l
char a
char n
char c
char e
char :
char \space
char %
char 1
char 0
char .
char 2
char f
char \
char n
closedQuote
char ,
identifier month
char ,
identifier bal
closedParen
endLine ;
identifier bal
assignment =
identifier bal
operator –
identifier payment
operator +
floatdcl 0.015
operator *
identifier bal
endLine ;
identifier month
assignment =
identifier month

```
operator +  
int 1  
endLine ;  
closedBracket  
closedBracket
```

Identifier, keyword, int, char, floatdcl, and operator need additional information to be returned in addition to the token code.

Dragon Book

1.1.4

C is a very versatile language that has a lot of compilers available and can compile to any hardware.

1.6.1

i = 4

j = 5

new j = 7

i = 6

w = i + j = 6 + 7 = 13

x = i + j = 6 + 5 = 11

new i = 8

y = i + j = 8 + 5 = 13

z = i + j = 6 + 5 = 11

w = 13

x = 11

y = 13

z = 11