Μεταγλωτιστές 2018
Προγραμματιστική Εργασία #2
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Γραμματική :

Stmt_list -> Stmt Stmt_list | ε.
Stmt -> id = Expr | print Expr.
Expr -> Term Term_tail.
Term_tail -> First_priority Term Term_tail | ε.
Term -> Factor Factor_tail.
Factor_tail -> Second_priority Factor Factor_tail | ε.
Factor -> (Expr) | id | boolean.
First_priority -> not| ε.
Second_priority -> and | or .

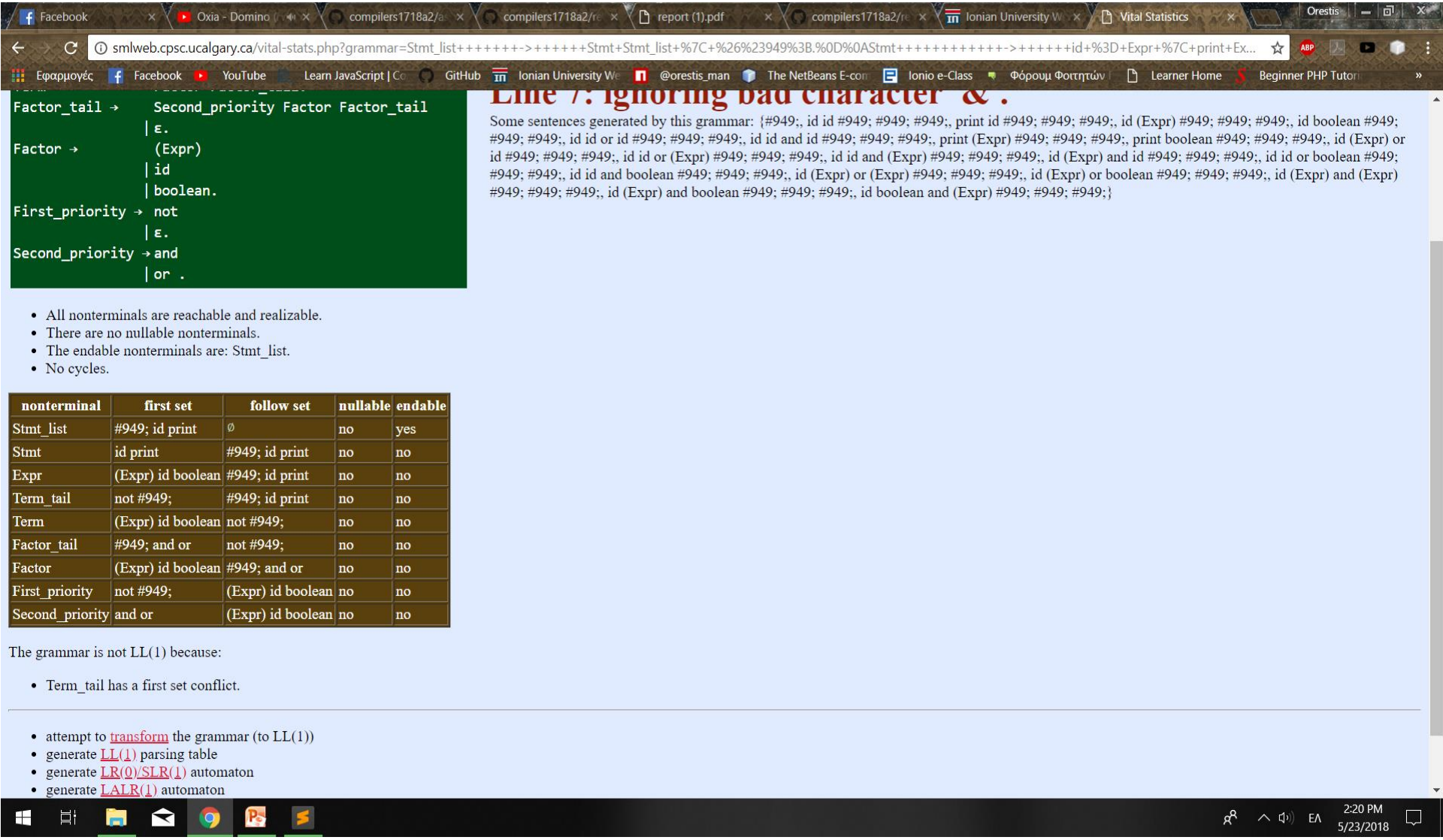
FIRST sets

Stmt_list	id,print,ε
Stmt	id print
Expr	(,id,boolean
Term_tail	not,ε
Term	(,id,boolean
Factor_tail	ε,and or
Factor	(,id,boolean
First_priority	ε,not
Second_priority	and,or

FOLLOW sets

Stmt_list	Ø
Stmt	Ø
Expr	)
Term_tail	)
Term	not
Factor_tail	not
Factor	and ,or
First_priority	)
Second_priority	)

Η γραμματική είναι LL(1)



Ο parser αναγνωρίζει boolean και logical τιμές καθώς επίσης και identifiers.

parser.py - C:\Users\oresp\Desktop\Μαθηματα\METAGLWTISTES-PYTHON\parser.py (3.6.5rc1)

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```
                self.match(self.la)

        else:
                raise ParseError("Expected identifier or print keyword")

    def identifier(self):
        if self.la == "Identifier":
                print("found Identifier")
                self.match(self.la)
                self.logical()
        elif self.la == "Got a TRUE" or self.la == "Got a FALSE":
                print("found boolean Value")
                self.match(self.la)
                self.logical()
        else:
                raise ParseError("Expected identifier or boolean")

    def equalSign(self):
        if self.la == "equalSign":
                print("found Equal_Sign")
                self.match(self.la)
                self.identifier()
        else:
                print(self.la)
                raise ParseError("Expected '=' ")

    def logical(self):
        if self.la == "Got a NOT" or (self.la == "Got an OR" or self.la == "Got an A
                print("found logical")
                self.match(self.la)
                self.identifier()
        else:
                raise ParseError("Expected not, and, or")


# the main part of prog

# create the parser object
parser = MyParser()

# open file for parsing
with open("recursive.txt","r") as fp:

    # parse file
    try:
        parser.parse(fp)
    except errors.PlexError:
```

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Python 3.6.5rc1 Shell

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```
Python 3.6.5rc1 (v3.6.5rc1:f03c5148cf, Mar 14 2018, 03:12:11) [MSC v.1913 64 bit (AMD64)] on
win32
Type "copyright", "credits" or "license()" for more information.
>>>
== RESTART: C:\Users\oresp\Desktop\Μαθηματα\METAGLWTISTES-PYTHON\parser.py ==
Got identifier
Parser Error: Expected '='  at line 1 char 4
>>>
== RESTART: C:\Users\oresp\Desktop\Μαθηματα\METAGLWTISTES-PYTHON\parser.py ==
Got identifier
Parser Error: Expected '='  at line 1 char 4
>>>
== RESTART: C:\Users\oresp\Desktop\Μαθηματα\METAGLWTISTES-PYTHON\parser.py ==
Got identifier
Got an EQUAL_SIGN
Parser Error: Expected '='  at line 1 char 4
>>>
== RESTART: C:\Users\oresp\Desktop\Μαθηματα\METAGLWTISTES-PYTHON\parser.py ==
Got identifier
Got an EQUAL_SIGN
Parser Error: Expected '='  at line 1 char 5
>>>
== RESTART: C:\Users\oresp\Desktop\Μαθηματα\METAGLWTISTES-PYTHON\parser.py ==
Got identifier
found Equal_Sign
found Identifier
Parser Error: Expected not, and, or at line 1 char 8
>>>
== RESTART: C:\Users\oresp\Desktop\Μαθηματα\METAGLWTISTES-PYTHON\parser.py ==
Got identifier
found Equal_Sign
found Identifier
found logical
found boolean Value
found logical
Parser Error: Expected identifier or boolean at line 1 char 13
>>>
== RESTART: C:\Users\oresp\Desktop\Μαθηματα\METAGLWTISTES-PYTHON\parser.py ==
Got identifier
Got an EQUAL_SIGN
Parser Error: Expected '='  at line 1 char 5
>>>
```

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