

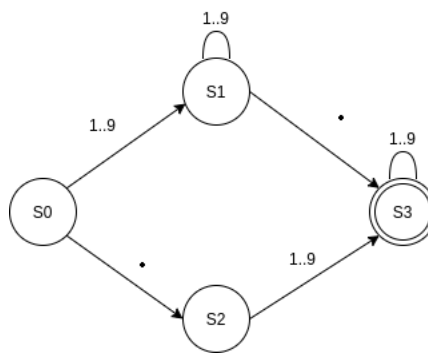
# Μεταγλωτιστές 2020

## Προγραμματιστική Εργασία #1

Ονοματεπώνυμο: Χαράλαμπος Στυλιανού

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FA



dfa.py output

```
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/home/xaralampou/Desktop/test.py - Mousepad

def get_char(text,pos):
    if pos<0 or pos>len(text):
        return None
    c=text[pos]
    if c>='0' and c<='9':
        return 'DIGIT'
    return c

def scan(text,transitions,accepts,start):
    pos = 0
    state = start
    while True : #gia panta
        c=get_char(text,pos)
        if state in transitions and c in transitions[state]:
            state = transitions[state][c]
            pos+=1
        else:
            if state in accepts:
                return {'token': accepts[state],'lexeme':text[pos]}
            return None

transitions = {
    's0':{'DIGIT': 's1','.': 's2'},
    's1':{'.': 's3','DIGIT': 's1'},
    's2':{'DIGIT': 's3'},
    's3':{'DIGIT': 's3'}
}
accepts = {'s3': 'FLOAT_TOKEN'}

#text = input('Give')
#m=scan(text,transitions,accepts,'s0')
#print(m)

for test in ['12.456','6789','.66998','1234','.']:
    m = scan(test,transitions,accepts,'s0')
    print("Testing '%s'%Result: %s"% (test,m))
```

```
xaralampou@Charalampou: ~/Desktop
Testing '12.456'
Result: {'token': 'FLOAT_TOKEN', 'lexeme': '12.456'}

Testing '6789.'
Result: {'token': 'FLOAT_TOKEN', 'lexeme': '6789.'}

Testing '.66998'
Result: {'token': 'FLOAT_TOKEN', 'lexeme': '.66998'}

Testing '1234'
Result: None

Testing '.'
Result: None

xaralampou@Charalampou: ~/Desktop$
```