Homework 6: CS536

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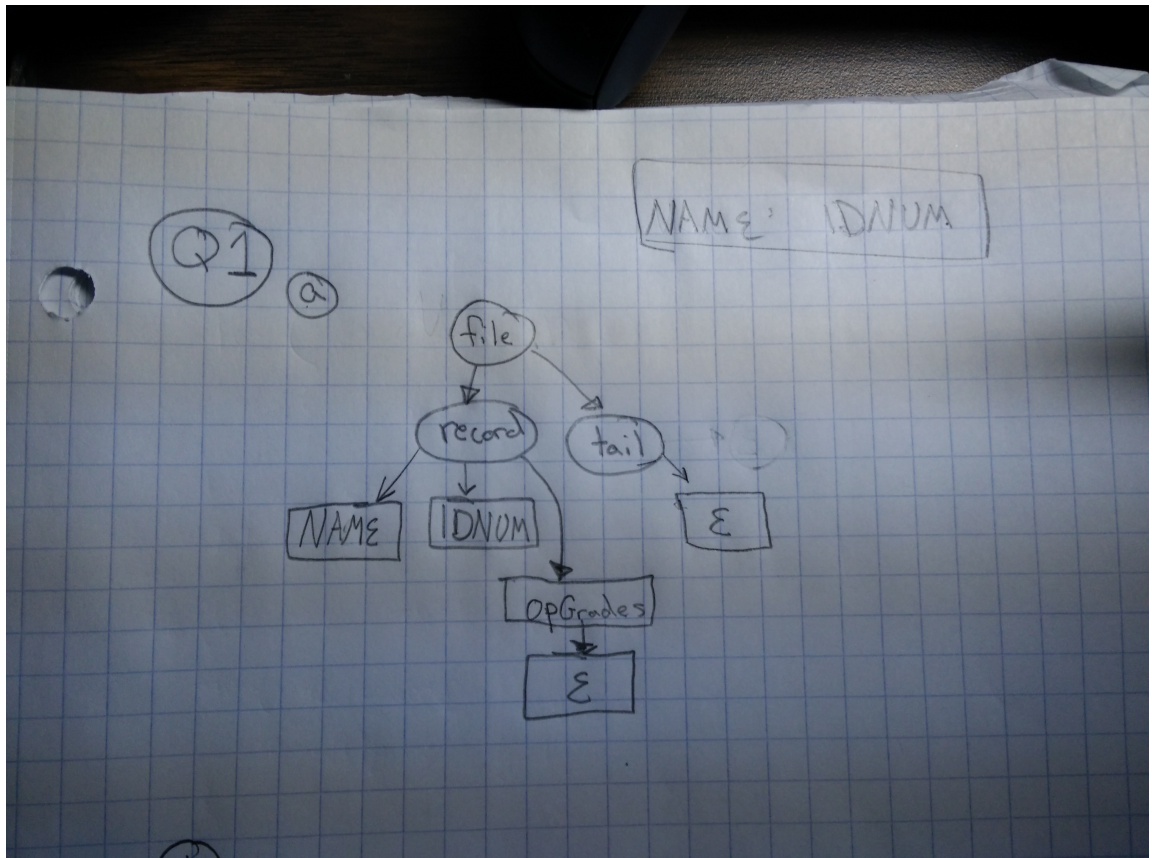
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Problem 1

Part a)

i) Shortest Token: NAME IDNUM
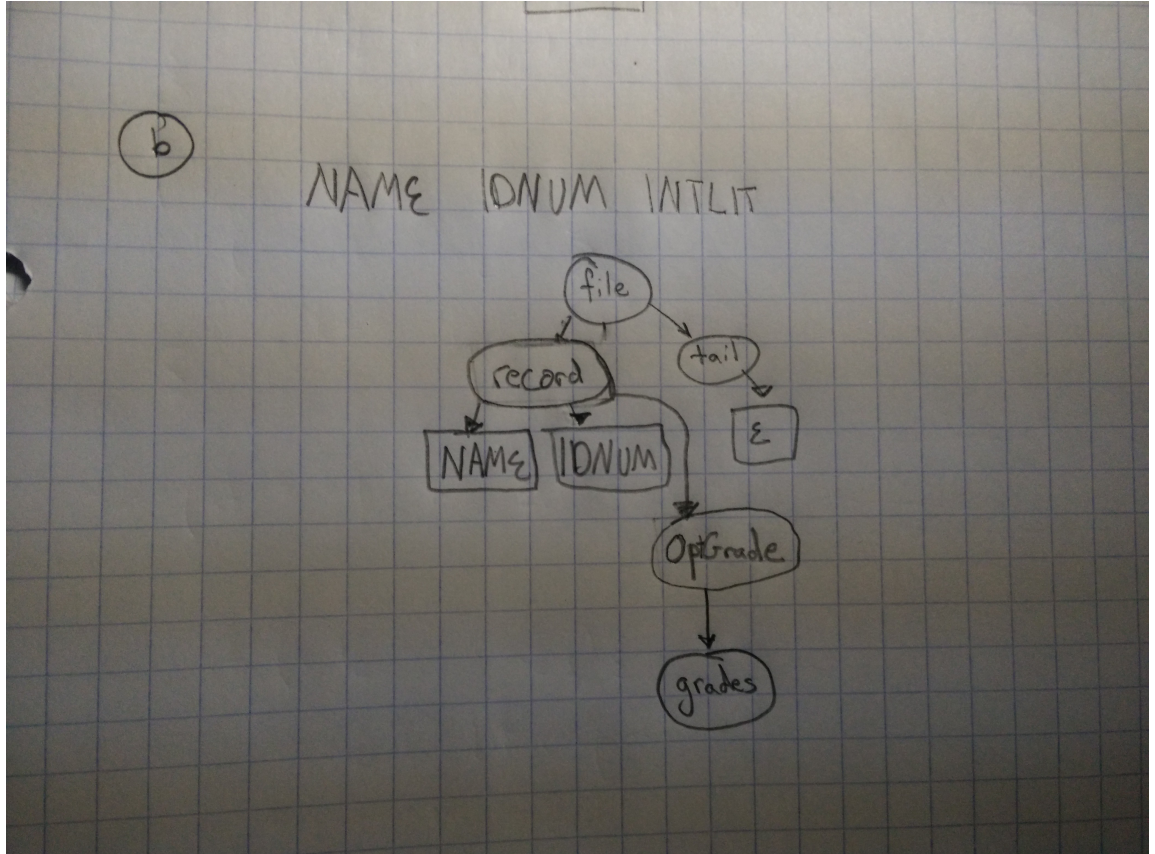ii)

Part b)

i) Shortest Token: NAME IDNUM INTNUM

ii)

iii)

The parser cannot tell whether to convert a "grades" into either a "oneGrade" or a "oneGrade COMMA grades" since either has INTLIT in its first set.

Problem 2

nonterminal	FIRST	FOLLOW
aa	A	EOF
bb	D,F,ϵ	B
cc	D,F	D,F,B
dd	E,ϵ	D,F,B
ee	G,J,ϵ	D,F,B
ff	G,J	G,J,D,F,B
gg	C,H	G,J,D,F,B
hh	G,J	D

nonterminal	FIRST
A ee bb B	A
cc bb	D,F
ϵ	ϵ
DC	D
F ee bb B dd	F
E A ee bb B	E
ff ee	G,J
hh D gg	G,J
C	C
HC	H
G	G
J	J