

Solutions for Assignment #10

Assignment Information

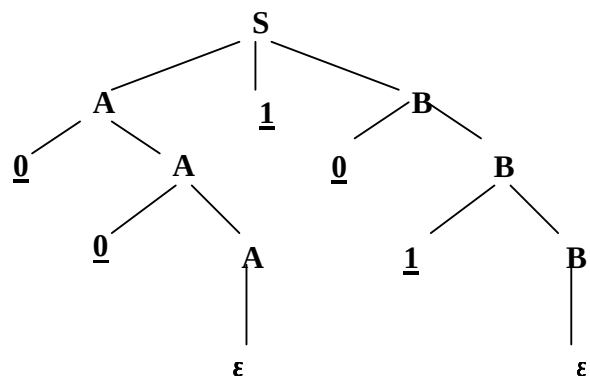
Maximum grade 20

Due date November 27, 2004

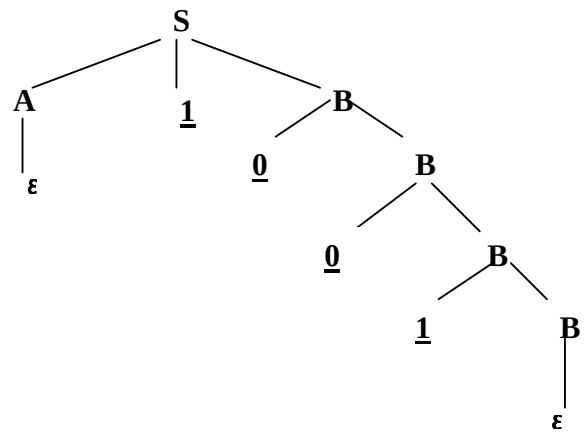
Instructions Textbook:
Page 191 -- problem 521
Pages 204-205 -- problems:
5.3.4 (b)-(c) and 5.3.5

Exercise 5.2.1:

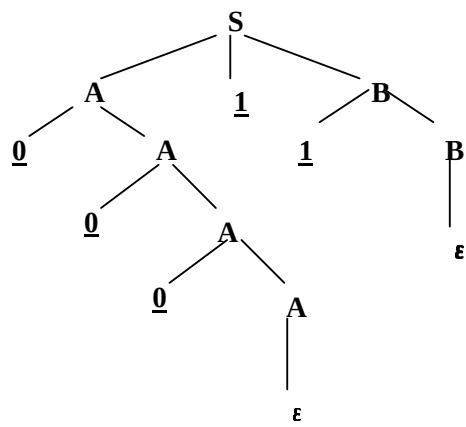
5.2.1 a) 00101



5.2.1 b) 1001



5.2.1 c) 00011



5.3.4 b)

$$\begin{aligned}
 \textit{Char} &\rightarrow a \mid A \mid \dots \\
 \textit{Text} &\rightarrow \epsilon \mid \textit{Char Text} \\
 \textit{Doc} &\rightarrow \epsilon \mid \textit{Element Doc} \\
 \textit{Element} &\rightarrow \textit{Text} \mid \langle \textit{EM} \rangle \textit{Doc} \langle / \textit{EM} \rangle \mid \langle \textit{P} \rangle \textit{Doc} \mid \\
 &\quad \langle \textit{OL} \rangle \textit{List} \langle / \textit{OL} \rangle \mid \langle \textit{UL} \rangle \textit{List} \langle / \textit{UL} \rangle \mid \dots \\
 \textit{ListItem} &\rightarrow \langle \textit{LI} \rangle \textit{Doc} \\
 \textit{List} &\rightarrow \epsilon \mid \textit{ListItem List}
 \end{aligned}$$

5.3.4 c)

$$\begin{aligned}
 \textit{Char} &\rightarrow a \mid A \mid \dots \\
 \textit{Text} &\rightarrow \epsilon \mid \textit{Char Text} \\
 \textit{Doc} &\rightarrow \epsilon \mid \textit{Element Doc} \\
 \textit{Element} &\rightarrow \textit{Text} \mid \langle \textit{EM} \rangle \textit{Doc} \langle / \textit{EM} \rangle \mid \langle \textit{P} \rangle \textit{Doc} \mid \\
 &\quad \langle \textit{OL} \rangle \textit{List} \langle / \textit{OL} \rangle \mid \langle \textit{TABLE} \rangle \textit{Table} \langle / \textit{TABLE} \rangle \mid \dots \\
 \textit{ListItem} &\rightarrow \langle \textit{LI} \rangle \textit{Doc} \\
 \textit{List} &\rightarrow \epsilon \mid \textit{ListItem List} \\
 \textit{Table} &\rightarrow \textit{TableHeaderRow TableDataRows} \\
 \textit{TableHeaderRow} &\rightarrow \langle \textit{TR} \rangle \textit{TableHeaderFields} \langle / \textit{TR} \rangle \\
 \textit{TableHeaderFields} &\rightarrow \textit{TableHeaderField} \mid \textit{TableHeaderField TableHeaderFields} \\
 \textit{TableHeaderField} &\rightarrow \langle \textit{TH} \rangle \textit{Doc} \langle / \textit{TH} \rangle \\
 \textit{TableDataRows} &\rightarrow \epsilon \mid \textit{TableDataRows TableDataRow} \\
 \textit{TableDataRow} &\rightarrow \langle \textit{TR} \rangle \textit{TableDataFields} \langle / \textit{TR} \rangle \\
 \textit{TableDataFields} &\rightarrow \textit{TableDataField} \mid \textit{TableDataField TableDataFields} \\
 \textit{TableDataField} &\rightarrow \langle \textit{TD} \rangle \textit{Doc} \langle / \textit{TD} \rangle
 \end{aligned}$$

5.3.5

$\text{Courses} \rightarrow \text{Course Courses} \mid \text{Course}$

$\text{Course} \rightarrow \text{Cname Prof A B}$

$A \rightarrow \text{Student A} \mid \varepsilon$

$B \rightarrow \text{Ta} \mid \varepsilon$

$\text{Cname} \rightarrow \# \text{Pcdata}$

$\text{Prof} \rightarrow \# \text{Pcdata}$

$\text{Student} \rightarrow \# \text{Pcdata}$

$\text{Ta} \rightarrow \# \text{Pcdata}$