

Lab 3

Name- Adhyyan Tripathi

Roll no -8

Sec C

Reg no -201700403

Q) Consider the following Grammar:

$S \rightarrow cAd$

$A \rightarrow a|b|ab$

ALGORITHM:

Step 1: Start.

Step 2: Function for start symbol, S()

Step2.1 check if first input symbol corresponds to start production.

Step2.2 if true

Step2.3 match the next symbol

Step2.4 Call function for nonterminal to scan for symbols

Step2.5 else

Error

Step 3: Function for Nonterminal A().

Step3.1 Choose an A- production,

$A \rightarrow X_1X_2\ldots X_k$

Step3.2 for (i=1 to k)

Step3.3 if (X_i is non terminal)

Call procedure $X_i()$;

Step3.4 else if (X_i equal the current input symbol)

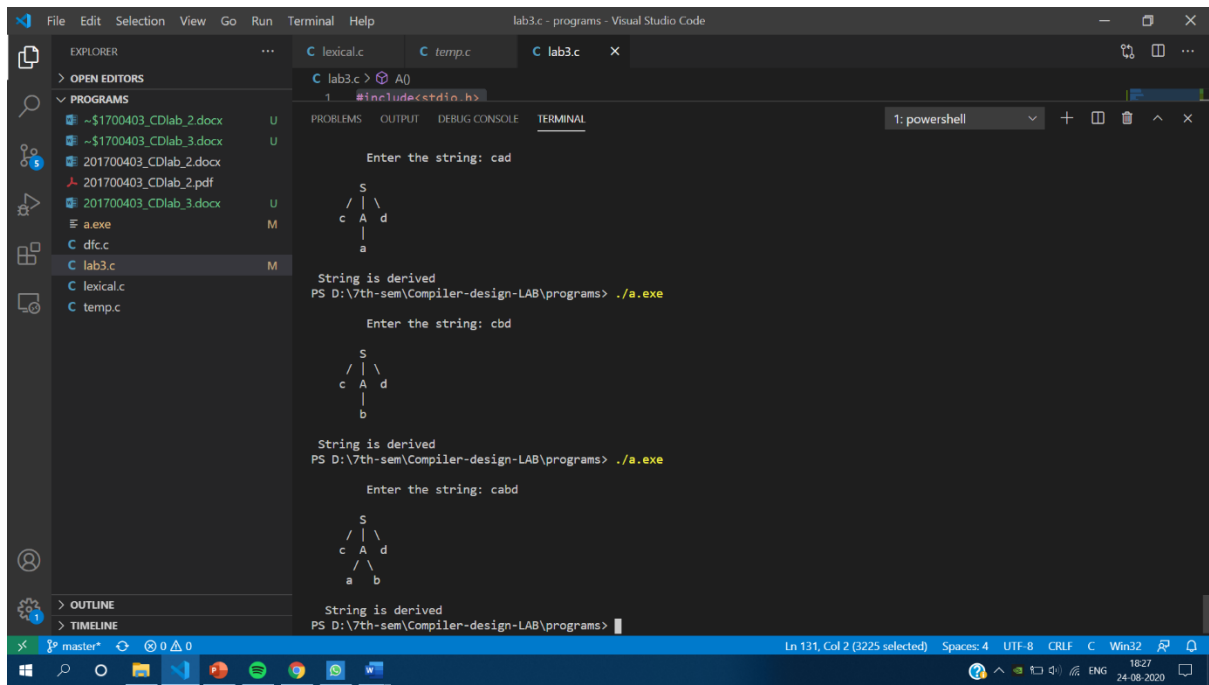
Advance the input to next symbol

Step3.5 else

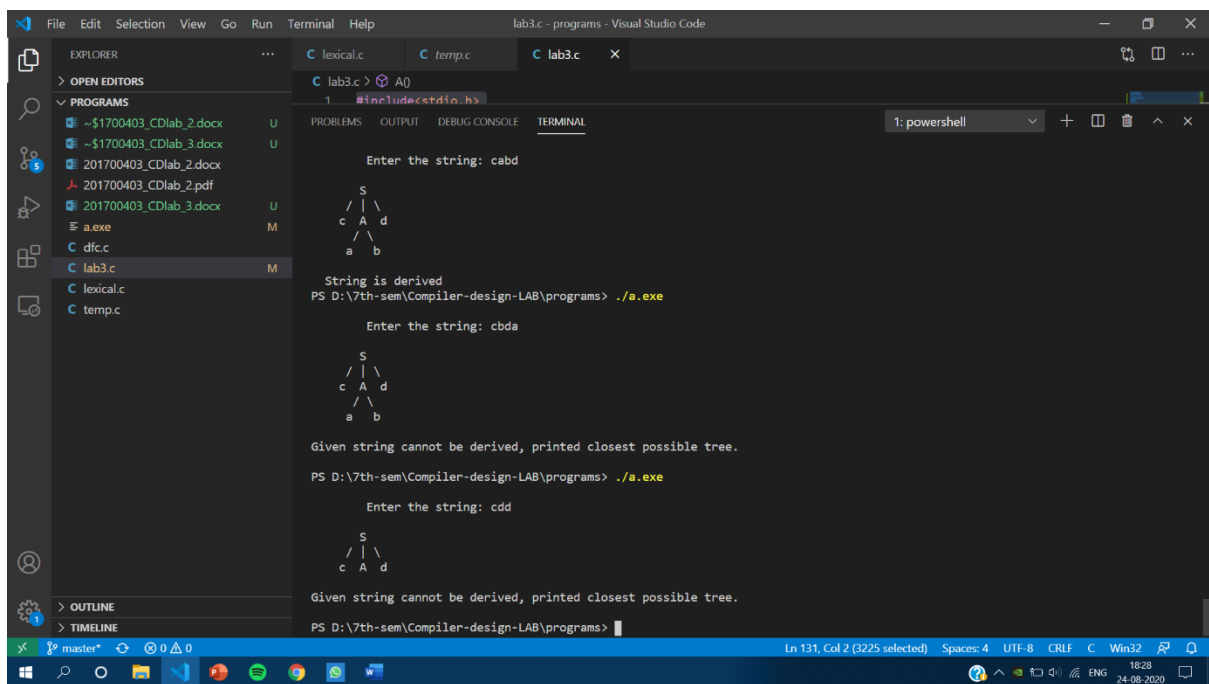
error

Step 4: Stop.

For valid Strings- cad, cbd, cabd



For invalid Strings-



3. Check for Valid/Invalid string in the input.

Valid Strings are – 1) cad

2) cbd

3) cabd

Invalid Strings are – All other strings other than the above three.