

Variant 1

1. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, B, D, A\}$, $V_T=\{a,b,c,d\}$,

$P=\{$ 1. $S \rightarrow d B$ 2. $B \rightarrow D$ 3. $B \rightarrow D c B$
4. $D \rightarrow b A$ 5. $A \rightarrow a$ 6. $A \rightarrow a A$ $\}$,

implement algorithm of simple precedence parsing and analyze the **dbacbaa** string

Bonus point: provide as an additional output the derivation tree.

Variant 2

2. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, B, D, A\}$, $V_T=\{a,b,c,d\}$,

$P=\{$ 1. $S \rightarrow d A$ 2. $A \rightarrow D$ 3. $A \rightarrow D c A$
4. $D \rightarrow b B$ 5. $B \rightarrow a$ 6. $B \rightarrow a B$ $\}$,

implement the LL(1) parsing and analyze the **dbaachaaa** string

Bonus point: provide as an additional output the derivation tree.

Variant 3

For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, A, B, C, D\}$, $V_T=\{a,b,c,d\}$,

$P=\{$ 1. $S \rightarrow A$ 2. $A \rightarrow c B$ 3. $B \rightarrow C d$
4. $C \rightarrow D$ 5. $C \rightarrow C b D$ 6. $D \rightarrow a$ 7. $D \rightarrow a c C d$ $\}$,

implement algorithm of simple precedence parsing and analyze the **cabacadd** string

Bonus point: provide as an additional output the derivation tree.

Variant 4

2. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, A, B, C, D\}$, $V_T=\{a,b,c,d,e\}$,

$P=\{$ 1. $S \rightarrow C$ 2. $C \rightarrow B$ 3. $C \rightarrow B e C$
4. $B \rightarrow a b D$ 5. $D \rightarrow A d$ 6. $A \rightarrow c$ 7. $A \rightarrow A c$ $\}$,

implement the LL(1) parsing and analyze the **abcdeabcccd** string

Bonus point: provide as an additional output the derivation tree.

Variant 5

1. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, A, B, C, D\}$, $V_T=\{a,b,c,d,e\}$,

$P=\{$ 1. $S \rightarrow A e$ 2. $A \rightarrow b a B$ 3. $B \rightarrow C d$
4. $C \rightarrow D$ 5. $C \rightarrow C b D$ 6. $D \rightarrow c$ $\}$,

implement algorithm of simple precedence parsing and analyze the **bacbcbcd**

Bonus point: provide as an additional output the derivation tree.

Variant 6

2. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, A, B, C, D\}$, $V_T=\{a,b,c,d\}$,

$P=\{$ 1. $S \rightarrow d B$ 2. $B \rightarrow C$ 3. $B \rightarrow C c B$
4. $C \rightarrow b A$ 5. $A \rightarrow a$ 6. $A \rightarrow a A$ $\}$,

build the LL(1) parse table and analyze the **dbacbaaa** string

Bonus point: provide as an additional output the derivation tree.

Variant 7

1. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, A, B, C\}$, $V_T=\{a,b,c\}$,

$P=\{$ 1. $S \rightarrow a A$ 2. $A \rightarrow C$ 3. $A \rightarrow C b A$
4. $C \rightarrow d B$ 5. $B \rightarrow b$ 6. $B \rightarrow a B$ $\}$,

implement algorithm of simple precedence parsing and analyze the **adbbdb** string

Bonus point: provide as an additional output the derivation tree.

Variant 8

1. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, A, B, C, D\}$, $V_T=\{a,b,c,d,e\}$,

$P=\{$ 1. $S \rightarrow L d X$ 2. $X \rightarrow D$ 3. $L \rightarrow c a$
4. $L \rightarrow a L$ 5. $D \rightarrow b$ 6. $D \rightarrow D e b$ $\}$,

implement the LL(1) parsing and analyze the **aaaacadeebbb** string

Bonus point: provide as an additional output the derivation tree.

1. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, A, B, C, D\}$, $V_T=\{a,b,c,d,e\}$, $P=\{$ 1. $S \rightarrow C$ 2. $C \rightarrow B c A$ 3. $A \rightarrow b$
4. $A \rightarrow d D$ 5. $D \rightarrow B e$ 6. $B \rightarrow a$ 7. $B \rightarrow B b a$ $\}$,
implement algorithm of simple precedence parsing and analyze the **abacdae** string
Bonus point: provide as an additional output the derivation tree.

2. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, A, B, C, D\}$, $V_T=\{a,b,c,d,e\}$, $P=\{$ 1. $S \rightarrow A$ 2. $A \rightarrow C$ 3. $A \rightarrow A c C$
4. $C \rightarrow a$ 5. $C \rightarrow b$ 6. $C \rightarrow d D$ 7. $D \rightarrow A e$ $\}$,
implement the LL(1) parsing and analyze the ***dacbcbea*** string
Bonus point: provide as an additional output the derivation tree.

1. For the given grammar $G=(V_N, V_T, P, S)$, $V_N=\{S, A, B, C, D\}$, $V_T=\{a,b,c,d,e\}$, $P=\{$ 1. $S \rightarrow B$ 2. $B \rightarrow C$ 3. $B \rightarrow C c B$
4. $C \rightarrow a d D$ 5. $D \rightarrow A e$ 6. $A \rightarrow b$ 7. $A \rightarrow A b$, 8. $B \rightarrow d \}$,
implement algorithm of simple precedence parsing and analyze the **adabcd** string
Bonus point: provide as an additional output the derivation tree.

2. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, A, B, C, D\}$, $V_T=\{a,b,c,d,e,f,g\}$,
 $P=\{$ 1. $S \rightarrow Cf$ 2. $C \rightarrow a b B$ 3. $B \rightarrow D c$
 4. $D \rightarrow A$ 5. $D \rightarrow g A$ 6. $A \rightarrow d$ 7. $A \rightarrow e$ $\}$,
 implement the LL(1) parsing and analyze the **abgdcf** string
 Bonus point: provide as an additional output the derivation tree.

1. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, A, B, C\}$, $V_T=\{a,b,c,d,e,f\}$,
 $P=\{$ 1. $S \rightarrow B c$ 2. $S \rightarrow B c d C$ 3. $C \rightarrow A e$
 4. $A \rightarrow f$ 5. $A \rightarrow A b f$ 6. $B \rightarrow a$ 7. $B \rightarrow B b a$ $\}$,
 implement algorithm of simple precedence parsing and analyze the ***abacdfbf*** string
 Bonus point: provide as an additional output the derivation tree.

2. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, A, B, C, D\}$, $V_T=\{a,b,c,d,e,f\}$, $P=\{$

1. $S \rightarrow A a$	2. $S \rightarrow A a b B$	3. $B \rightarrow C c$	
4. $C \rightarrow f$	5. $C \rightarrow C d f$	6. $A \rightarrow e$	7. $A \rightarrow A d e$

$\}$, implement the LL(1) parsing and analyze the **ededeabfdfc** string
Bonus point: provide as an additional output the derivation tree.

1. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, A, B, C, D\}$, $V_T=\{a,b,c,d,e,f,g,e\}$,
 $P=\{$ 1. $S \rightarrow A g$ 2. $A \rightarrow a b c B$ 3. $B \rightarrow C d$
 4. $C \rightarrow e$ 5. $C \rightarrow C f D$ 6. $D \rightarrow e$ $\}$,
 implement algorithm of simple precedence parsing and analyze the **abcefedg** string
 Bonus point: provide as an additional output the derivation tree.

2. For the given grammar $G=(V_N, V_T, P, S,), V_N=\{S, B, D, A\}, V_T=\{a,b,c,d\}, P=\{$
 $1. S \rightarrow d A \quad 2. A \rightarrow B \quad 3. A \rightarrow B c A$
 $4. B \rightarrow b D \quad 5. D \rightarrow a \quad 6. D \rightarrow a D \quad \}$,
 implement the LL(1) parsing and analyze the ***dbaachbaaa*** string

Bonus point: provide as an additional output the derivation tree.

Variant 17

1. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, B, D, A\}$, $V_T=\{a,b,c,d\}$,
 $P=\{$ 1. $S \rightarrow d B$ 2. $B \rightarrow a$ 3. $B \rightarrow a A$
 4. $A \rightarrow D$ 5. $A \rightarrow D c A$ 6. $D \rightarrow b B$ 7. $A \rightarrow c$ $\}$,
implement algorithm of simple precedence parsing and analyze the **dabacba** string
Bonus point: provide as an additional output the derivation tree.

Variant 18

2. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, A, B, C, D\}$, $V_T=\{a,b,c,d,e\}$,
 $P=\{$ 1. $S \rightarrow A$ 2. $A \rightarrow B$ 3. $A \rightarrow B e A$
 4. $B \rightarrow a b D$ 5. $D \rightarrow C d$ 6. $C \rightarrow c$ 7. $C \rightarrow C c$ $\}$,
implement the LL(1) parsing and analyze the **abcdeabcccd** string
Bonus point: provide as an additional output the derivation tree.

Variant 19

1. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, A, B, C, D\}$, $V_T=\{a,b,c,d,e,f,g,e\}$,
 $P=\{$ 1. $S \rightarrow A g$ 2. $A \rightarrow A b D$ 3. $A \rightarrow C$
 4. $C \rightarrow e$ 5. $C \rightarrow C f D$ 6. $D \rightarrow e$ $\}$,
implement algorithm of simple precedence parsing and analyze the **efefebeg** string
Bonus point: provide as an additional output the derivation tree.

Variant 20

2. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, A, B, D\}$, $V_T=\{a,b,c,d\}$,
 $P=\{$ 1. $S \rightarrow A a$ 2. $S \rightarrow A a d B$ 3. $B \rightarrow D a f$
 4. $D \rightarrow c$ 5. $D \rightarrow D e c$ 6. $A \rightarrow b$ 7. $A \rightarrow A e b$ $\}$,
implement the LL(1) parsing and analyze the **bebadcecaf** string
Bonus point: provide as an additional output the derivation tree.

Variant 21

1. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, F, L, E\}$, $V_T=\{a,b,c,d,e\}$,
 $P=\{$ 1. $S \rightarrow L d F$ 2. $F \rightarrow E$ 3. $L \rightarrow c a$
 4. $L \rightarrow L a$ 5. $E \rightarrow b$ 6. $E \rightarrow E e b$ $\}$,
implement algorithm of simple precedence parsing and analyze the **caadbcb** string
Bonus point: provide as an additional output the derivation tree.

Variant 22

2. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, A, B, C, D\}$, $V_T=\{a,b,c,d,f,g\}$,
 $P=\{$ 1. $S \rightarrow B f D$ 2. $B \rightarrow B c$ 3. $B \rightarrow D$
 4. $D \rightarrow A g$ 5. $D \rightarrow A$ 6. $A \rightarrow d$ 7. $A \rightarrow c$ $\}$,
implement the LL(1) parsing and analyze the **dgcfdg** string
Bonus point: provide as an additional output the derivation tree.

Variant 23

1. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, A, B, C\}$, $V_T=\{a,b,c,d,e,f\}$,
 $P=\{$ 1. $S \rightarrow B c$ 2. $S \rightarrow A c d C$ 3. $C \rightarrow C e$
 4. $C \rightarrow f$ 5. $A \rightarrow B b f$ 6. $B \rightarrow a$ 7. $B \rightarrow B b a$ $\}$,
implement algorithm of simple precedence parsing and analyze the **ababfcdf** string
Bonus point: provide as an additional output the derivation tree.

Variant 24

2. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, A, B, C, D\}$, $V_T=\{a,b,c,d,e,f\}$,
 $P=\{$ 1. $S \rightarrow D a b B$ 2. $D \rightarrow e$ 3. $D \rightarrow D d f$
4. $B \rightarrow A c D$ 5. $A \rightarrow a$ 6. $A \rightarrow A d e$ $\}$,
implement the LL(1) parsing and analyze the **edfabadece** string
Bonus point: provide as an additional output the derivation tree.

Variant 25

1. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, A, B, C, D\}$, $V_T=\{a,b,c,d,e,f,g,e\}$,
 $P=\{$ 1. $S \rightarrow A g C$ 2. $A \rightarrow a B$ 3. $B \rightarrow C$,
4. $D \rightarrow D a$ 5. $D \rightarrow e$ 6. $C \rightarrow C f D$, 7. $C \rightarrow d$ $\}$,
implement algorithm of simple precedence parsing and analyze the **adfegdf e** string
Bonus point: provide as an additional output the derivation tree.

Variant 26

2. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, F, L, E\}$, $V_T=\{a,b,c,d,e\}$,
 $P=\{$ 1. $S \rightarrow E d F$ 2. $E \rightarrow F e b$ 3. $F \rightarrow F a L$
4. $F \rightarrow b$ 5. $L \rightarrow c a$ 6. $L \rightarrow L a$ $\}$,
implement the LL(1) parsing and analyze the **baeaebdbaca** string
Bonus point: provide as an additional output the derivation tree.

Variant 27

1. For the given grammar $G=(V_N, V_T, P, S,)$, $V_N=\{S, F, L, E\}$, $V_T=\{a,b,c,d,e\}$,
 $P=\{$ 1. $S \rightarrow E d F$ 2. $E \rightarrow e b D$ 3. $F \rightarrow F a L$
4. $D \rightarrow F b E$ 5. $L \rightarrow a L$ 6. $L \rightarrow a$ $\}$,
implement algorithm of simple precedence parsing and analyze the **baeaebdbaca** string
Bonus point: provide as an additional output the derivation tree.