

C:\Users\ranjith kumar\OneDrive\Documents\exp c.8.cpp - [Executing] - Dev-C++ 5.11

File Edit Search View Project Execute Tools AStyle Window Help

(globals)

Project Classes Debug exp c.8.cpp

```
1  #include<stdio.h>
2  #include<ctype.h>
3  #include<string.h>
4  int limit, x = 0;
5  char production[10][10], array[10];
6
7  void find_first(char ch);
8  void find_follow(char ch);
9  void Array_Manipulation(char ch);
10
11 int main()
12 {
13     int count;
14     char option, ch;
15     printf("\nEnter Total Number of Productions:\t");
16     scanf("%d", &limit);
17     for(count = 0; count < limit; count++)
18     {
19         printf("\nValue of Production Number [%d]:\t", count + 1);
20         scanf("%s", production[count]);
21     }
22 }
```

Compiler Resources Compile Log Debug Find Results Close

Abort Compilation

Shorten compiler paths

-----  
- Errors: 0  
- Warnings: 0  
- Output Filename: C:\Users\ranjith kumar\OneDrive\Documents\ex  
- Output Size: 131.3037109375 KiB  
- Compilation Time: 2.09s

Line: 106 Col: 1 Sel: 0 Lines: 106 Length: 2763 Insert Done parsing in 0.157 seconds

C:\Users\ranjith kumar\OneD

```
Enter Total Number of Productions:      4
Value of Production Number [1]: s=AaAb
Value of Production Number [2]: s=BbBa
Value of Production Number [3]: A=$
Value of Production Number [4]: B=$
Enter production Value to Find Follow:  s
Follow Value of s:      { $ }
To Continue, Press Y:   y
Enter production Value to Find Follow:  A
Follow Value of A:      { a b }
To Continue, Press Y:   y
Enter production Value to Find Follow:  B
Follow Value of B:      { b a }
To Continue, Press Y:   n
-----
Process exited after 177.1 seconds with return va
lue 0
Press any key to continue . . .
```

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(globals)

Project Classes Debug exp c.8.cpp

```
19     printf("\nValue of Production Number [%d]:\t", count + 1);
20     scanf("%s", production[count]);
21 }
22 do
23 {
24     x = 0;
25     printf("\nEnter production Value to Find Follow:\t");
26     scanf(" %c", &ch);
27     find_follow(ch);
28     printf("\nFollow Value of %c:\t{ ", ch);
29     for(count = 0; count < x; count++)
30     {
31         printf("%c ", array[count]);
32     }
33     printf("}\n");
34     printf("To Continue, Press Y:\t");
35     scanf(" %c", &option);
36 }while(option == 'y' || option == 'Y');
37 return 0;
38 }
```

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Line: 31 Col: 23 Sel: 0 Lines: 106 Length: 2763 Insert Done parsing in 0.157 seconds

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Enter Total Number of Productions:      4
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Value of Production Number [3]: A=$
Value of Production Number [4]: B=$
Enter production Value to Find Follow:  s
Follow Value of s:      { $ }
To Continue, Press Y:   y
Enter production Value to Find Follow:  A
Follow Value of A:      { a b }
To Continue, Press Y:   y
Enter production Value to Find Follow:  B
Follow Value of B:      { b a }
To Continue, Press Y:   n
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(globals)

Project Classes Debug exp c.8.cpp

```
40 void find_follow(char ch)
41 {
42     int i, j;
43     int length = strlen(production[i]);
44     if(production[0][0] == ch)
45     {
46         Array_Manipulation('$');
47     }
48     for(i = 0; i < limit; i++)
49     {
50         for(j = 2; j < length; j++)
51         {
52             if(production[i][j] == ch)
53             {
54                 if(production[i][j + 1] != '\0')
55                 {
56                     find_first(production[i][j + 1]);
57                 }
58                 if(production[i][j + 1] == '\0' && ch != production[i][j])
59                 {
60                     find_follow(production[i][j]);
61                 }
62             }
63         }
64     }
65 }
```

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Line: 59 Col: 15 Sel: 0 Lines: 106 Length: 2763 Insert Done parsing in 0.157 seconds

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To Continue, Press Y:   y
Enter production Value to Find Follow:  A
Follow Value of A:      { a b }
To Continue, Press Y:   y
Enter production Value to Find Follow:  B
Follow Value of B:      { b a }
To Continue, Press Y:   n
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(globals)

Project Classes Debug exp c.8.cpp

```
64 }
65 }
66
67 void find_first(char ch)
68 {
69     int i, k;
70     if(!isupper(ch))
71     {
72         Array_Manipulation(ch);
73     }
74     for(k = 0; k < limit; k++)
75     {
76         if(production[k][0] == ch)
77         {
78             if(production[k][2] == '$')
79             {
80                 find_follow(production[i][0]);
81             }
82             else if(islower(production[k][2]))
83             {
84                 Array_Manipulation(production[k][2]);
85             }
86         }
87     }
88 }
```

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(globals)

Project Classes Debug exp c.8.cpp

```
87 {
88     find_first(production[k][2]);
89 }
90 }
91 }
92 }
93
94 void Array_Manipulation(char ch)
95 {
96     int count;
97     for(count = 0; count <= x; count++)
98     {
99         if(array[count] == ch)
100         {
101             return;
102         }
103     }
104     array[x++] = ch;
105 }
106
```

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