



Project Classes Debug

exp 8.cpp exp 9.cpp exp 10.cpp exp 11.cpp [\*] exp 12.cpp exp 13.cpp exp 14.cpp

```

1  #include<stdio.h>
2  #include<stdlib.h>
3  #include<conio.h>
4  #include<string.h>
5  char ip_sym[15],stack[15]; int ip_ptr=0,st_ptr=0,len,i; char temp[2],temp2[2]; char act[15];
6  void check(); int main()
7  {
8
9  printf("\n\t\t SHIFT REDUCE PARSER\n"); printf("\n GRAMMER\n");
10 printf("\n E->E+E\n E->E/E"); printf("\n E->E*E\n E->a/b"); printf("\n enter the input symbol:\t"); gets(ip_sym);
11 printf("\n\t stack implementation table"); printf("\n stack \t\t input symbol\t\t action");
12 printf("\n \t\t \t\t \t\t \n");
13 printf("\n $ \t\t %s \t\t %s \t\t %s",ip_sym, strcpy(act,"shift "); temp[0]=ip_sym[ip_ptr]; temp[1]='\0';
14 strcat(act,temp); len=strlen(ip_sym); for(i=0;i<len-1;i++)
15 {
16 stack[st_ptr]=ip_sym[ip_ptr];
17
18 stack[st_ptr+1]='\0'; ip_sym[ip_ptr]=' '; ip_ptr++;
19 printf("\n $ %s \t\t %s \t\t %s",stack,ip_sym,act); strcpy(act,"shift");
20 temp[0]=ip_sym[ip_ptr]; temp[1]='\0'; strcat(act,temp); check();
21 st_ptr++;
22 }
23 st_ptr++; check();
24 }
25 void check()
26 {
27 int flag=0; temp2[0]=stack[st_ptr]; temp2[1]='\0';
28 if((!strcmpi(temp2,"a"))||(!strcmpi(temp2,"b")))
29 {
30 stack[st_ptr]='E'; if(!strcmpi(temp2,"a"))
31 printf("\n $ %s \t\t %s \t\t %s \t\t E->a",stack,ip_sym); else
32 printf("\n $ %s \t\t %s \t\t %s \t\t E->b",stack,ip_sym); flag=1;
33 }
34 if((!strcmpi(temp2,"+")||(!strcmpi(temp2,"*"))||(!strcmpi(temp2,"/"))))
35 {
36 flae=1;

```

Compiler Resources Compile Log Debug Find Results Close

Abort Compilation

Compilation: int \_\_cdecl strcmpi(const char \*\_Str1, const char \*\_Str2)

```

-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\swaro\OneDrive\Documents\exp 14.exe
- Output Size: 131.4677734375 KiB
- Compilation Time: 0.20s

```

C:\Users\swaro\OneDrive\Documents\exp 14.cpp - Dev-C++ 5.11

File Edit Search View Project Execute Tools AStyle Window Help

(globals)

exp 8.cpp exp 9.cpp exp 10.cpp exp 11.cpp [\*] exp 12.cpp exp 13.cpp exp 14.cpp

```
26 {
27     int flag=0; temp2[0]=stack[st_ptr]; temp2[1]='\0';
28     if((!strcmpi(temp2,"a"))||(!strcmpi(temp2,"b")))
29     {
30         stack[st_ptr]='E'; if(!strcmpi(temp2,"a"))
31             printf("\n %s\t\t%s\t\t\tE->a",stack,ip_sym); else
32             printf("\n %s\t\t%s\t\t\tE->b",stack,ip_sym); flag=1;
33     }
34     if((!strcmpi(temp2,"+")||(!strcmpi(temp2,"*"))||(!strcmpi(temp2,"/"))))
35     {
36         flag=1;
37     }
38     if((!strcmpi(stack,"E+E"))||(!strcmpi(stack,"E\E"))||(!strcmpi(stack,"E*E")))
39     {
40         int __cdecl strcmpi(const char *_Str1, const char *_Str2)
41         {
42             printf("\n %s\t\t%s\t\t\tE->E+E",stack,ip_sym); else
43             if(!strcmpi(stack,"E\E"))
44                 printf("\n %s\t\t%s\t\t\tE->E\E",stack,ip_sym); else
45             if(!strcmpi(stack,"E*E"))
46                 printf("\n %s\t\t%s\t\t\tE->E*E",stack,ip_sym); else
47                 printf("\n %s\t\t%s\t\t\tE->E+E",stack,ip_sym); flag=1;
48         }
49         if(!strcmpi(stack,"E")&&ip_ptr==len)
50         {
51             printf("\n %s\t\t%s\t\t\tACCEPT",stack,ip_sym); getch();
52             exit(0);
53         }
54         if(flag==0)
55         {
56             printf("\n %s\t\t\t\t reject",stack,ip_sym); exit(0);
57         }
58         return;
59     }
60 }
```

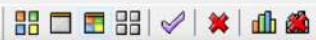
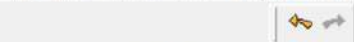
Compiler Resources Compile Log Debug Find Results Close

Compilation results...

-----

- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\swaro\OneDrive\Documents\exp 14.exe
- Output Size: 131.4677734375 KiB
- Compilation Time: 0.20s

Line: 38 Col: 22 Sel: 0 Lines: 60 Length: 1929 Insert Done parsing in 0.016 seconds



TDM-GCC 4.9.2 64-bit Release



Project Classes

C:\Users\swaro\OneDrive\Doc



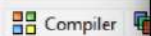
## SHIFT REDUCE PARSER

## GRAMMER

 $E \rightarrow E + E$  $E \rightarrow E / E$  $E \rightarrow E * E$  $E \rightarrow a / b$ 

enter the input symbol: a+b

stack	stack implementation table input symbol	action
\$	a+b\$	--
\$a	+b\$	shift a
\$E	+b\$	$E \rightarrow a$
\$E+	b\$	shift +
\$E+b	\$	shift b
\$E+E	\$	$E \rightarrow b$
\$E	\$	$E \rightarrow E + E$
\$E	\$	ACCEPT



Compiler

Abort Comp

☐ Shorten compiler paths

```
- Warnings: 0
- Output Filename: C:\Users\swaro\OneDrive\Documents\exp 14.exe
- Output Size: 131.4677734375 KiB
- Compilation Time: 0.20s
```