

## Practical-2

**AIM :** Write a C program to implement Symbol table.

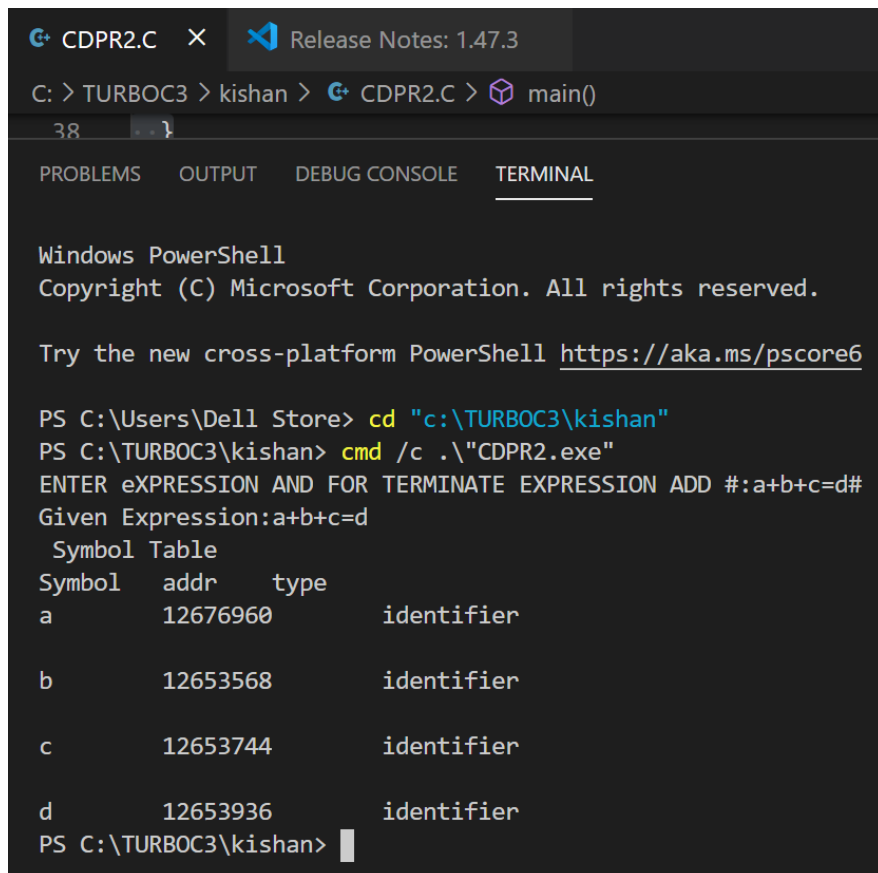
**Input:** Ask the user to enter expression end by \$: a + b + c = d\$

- **CODE :**

```
#include<stdio.h>
#include<ctype.h>
#include<stdlib.h>
#include<string.h>
#include<math.h>
int main()
{
    int i=0,j=0,x=0,n;
    void *p,*add[100];
    char ch,srch,b[15],d[15],c;
    printf("ENTER eXPRESSION AND FOR TERMINATE EXPRESSION ADD #:");
    while((c=getchar())!='#')
    {
        b[i]=c;
        i++;
    }
    n=i-1;
    printf("Given Expression:");
    i=0;
    while(i<=n)
    {
        printf("%c",b[i]);
        i++;
    }
    printf("\n Symbol Table\n");
    printf("Symbol \t addr \t type");
    while(j<=n)
    {
        c=b[j];
        if(isalpha(toascii(c)))
        {
            p=malloc(c);
            add[x]=p;
            d[x]=c;
            printf("\n%c \t %d \t identifier\n",c,p);
            x++;
        }
        j++;
    }
}
```

```
j++;  
}  
else  
{  
    ch=c;  
    if(ch=='+'||ch=='-'||ch=='*'||ch=='='||ch=='/')  
    {  
        p=malloc(ch);  
        add[x]=p;  
        d[x]=ch;  
  
        x++;  
        j++;  
    }  
}  
return 0;  
}
```

- **OUTPUT :**



```
CDPR2.C x Release Notes: 1.47.3  
C: > TURBOC3 > kishan > CDPR2.C > main()  
38 }  
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL  
Windows PowerShell  
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Try the new cross-platform PowerShell https://aka.ms/pscore6  
  
PS C:\Users\Dell Store> cd "c:\TURBOC3\kishan"  
PS C:\TURBOC3\kishan> cmd /c .\"CDPR2.exe"  
ENTER eXPRESSION AND FOR TERMINATE EXPRESSION ADD #:a+b+c=d#  
Given Expression:a+b+c=d  
Symbol Table  
Symbol addr type  
a 12676960 identifier  
b 12653568 identifier  
c 12653744 identifier  
d 12653936 identifier  
PS C:\TURBOC3\kishan>
```