Practical-2

AIM : Write a C program to implement Symbol table.
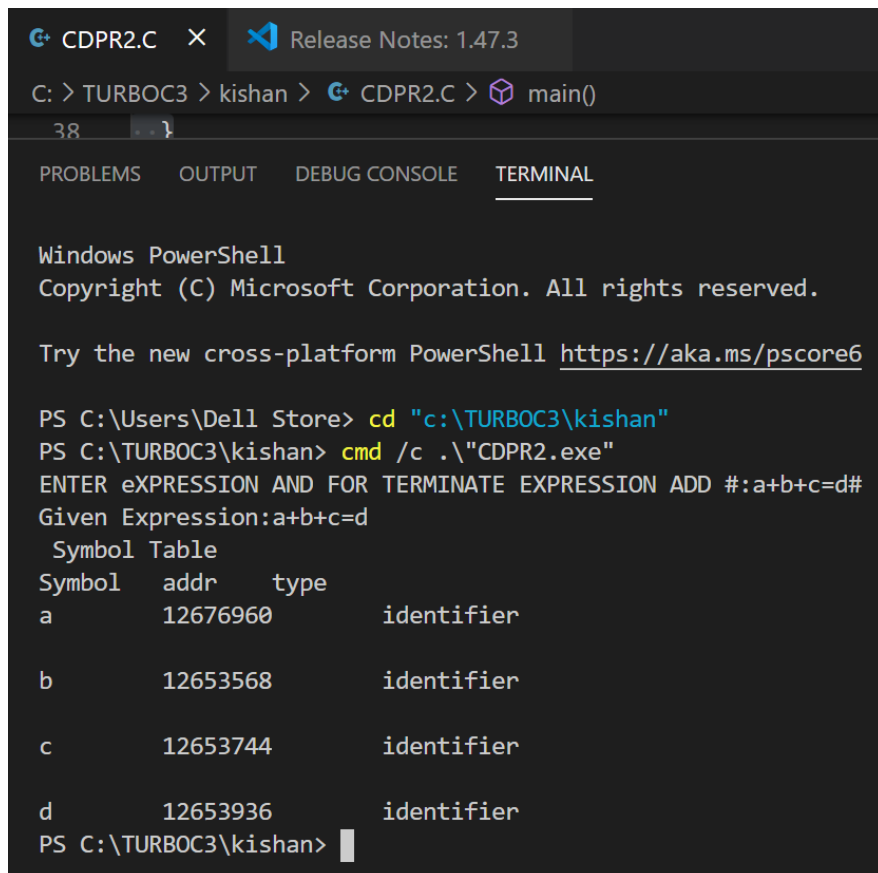
Input: Ask the user to enter expression end by $: a + b + c = d$

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

  x++;
  j++;
  }
  }
  }
 return 0;
  }
```

- **OUTPUT :**