**PRACTICAL-2**

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

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

**Expected Output:**

**Symbol Table:**

|  |  |  |
| --- | --- | --- |
| **Symbol** | **Addr** | **Type** |
| **a** | **1112** | **identifier** |
| **b** | **1200** | **Identifier** |
| **c** | **1494** | **Identifier** |
| **d** | **1532** | **Identifier** |

**Code:**

#include <stdio.h>

#include <conio.h>

#include <malloc.h>

#include <ctype.h>

void main()

{

int i=0,j=0,x=0,n,flag=0;

void \*p,\*add[150];

char ch,srch,b[150],d[150],g[100],c;

printf("Enter Expression terminated by $:");

while((c=getchar())!='$')

{

b[i]=c;

i++;

}

n=i-1;

printf("\nSymbol Table:");

printf("\nSymbol \t addr \t type\n");

while(j<=n)

{

c=b[j];

if(isalpha(toascii(c)))

{

if(j<=n)

{

p=malloc(c);

add[x]=p;

d[x]=c;

printf("%c \t %d \t identifier\n",c,p);

goto there;

}

else

{

there:

ch=b[j+1];

if(ch=='+'||ch=='-'||ch=='\*'||ch=='/'||ch=='=' || ch=='%')

{

p=malloc(c);

add[x]=p;

g[x]=ch;

//printf("%c \t %p \t Operator\n",g[x],p);

x++;

}

}

}

j++;

}

}

**Output**

