Roll No. :- 20BCE204

Course Code :- 2CS701

Course Name:- Compiler Construction

**AIM :-** To implement a Type Checker.

**Code:**

#include<stdio.h> #include<stdlib.h> int main()

{

int n,i,k,flag=0;

char vari[15],typ[15],b[15],c; printf("Enter the number of variables:"); scanf("%d",&n);

for(i=0; i<n; i++)

{

printf("Enter the variable[%d]:",i); scanf(" %c",&vari[i]);

printf("Enter the variable-type[%d](float-f,int-i):",i); scanf(" %c",&typ[i]);

if(typ[i]=='f') flag=1;

}

printf("Enter the Expression(end with $):"); i=0;

getchar();

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

{

b[i]=c; i++;

}

k=i;

for(i=0; i<k; i++)

{

if(b[i]=='/')

{

flag=1; break;

}

}

for(i=0; i<n; i++)

{

if(b[0]==vari[i])

{

if(flag==1)

{

if(typ[i]=='f')

{

printf("\nThe datatype of %c is correctly defined \n",vari[i]); break;

}

else

{

printf("Identifier %c must be a float type \n",vari[i]); break;

}

}

else

{

printf("\nThe datatype of %c is correctly defined\n",vari[i]); break;

}

}

}

return 0;

}

Output:



