

AIM:- Implement predictive parser (RDP) .

PROCEDURE:-

- Write algorithm for Recursive dependent parser for a desktop calculator's language.
- Write a program to implement predictive parser for desktop calculator.

Program:-

RDP.c

```
#include<stdio.h>
#include<string.h>
#include<ctype.h>
char input[10];
int i,error;
void E();
void T();
void Eprime();
void Tprime();
void F();

int main()
{
    i=0;
    error=0;
    printf("Enter an Arithmetic exp : ");
    gets(input);
    E();
    if(strlen(input)==i&&error==0)
        printf("\n Accepted ...!!!\n ");
    else
        printf("\n Rejected ...!!!\n ");
}

void E()
{
```

```

T();
Eprime();
}
void Eprime()
{
if(input[i]=='+' || input[i]=='-')
{
i++;
T();
Eprime();
}
}
void T()
{
F();
Tprime();
}
void Tprime()
{
    if(input[i]=='*' || input[i]=='/')
    {
        i++;
        F();
        Tprime();
    }
}
void F()
{
if(isalnum(input[i]))
i++;
else if(input[i]=='(')
{

```

```
i++;  
E();  
if(input[i]!='')  
i++;  
else error=1;  
}  
else error=1;  
}
```

Output:-

```
main.c:17:1: warning: 'gets' is deprecated [-Wdeprecated-declarations]  
/usr/include/stdio.h:638:14: note: declared here  
main.c:(.text+0x2d): warning: the 'gets' function is dangerous and should not be used.  
Enter an Arithmetic exp : a++  
  
Rejected ...!!!  
  
...Program finished with exit code 0  
Press ENTER to exit console.
```

```
main.c:17:1: warning: 'gets' is deprecated [-Wdeprecated-declarations]  
/usr/include/stdio.h:638:14: note: declared here  
main.c:(.text+0x2d): warning: the 'gets' function is dangerous and should not be used.  
Enter an Arithmetic exp : a+b*c/d  
  
Accepted ...!!!  
  
...Program finished with exit code 0  
Press ENTER to exit console.
```