**Practical : 9**

**Aim: Write a program to implement Recursive Decent Parser for following grammar and check given input strings accepted by grammar or not?**

**expr → digit rest**

**rest → +digit rest |- digit rest| Є**

**digit → 0 | 1 | 2 | 3 |…| 9**

#include<stdio.h>

#include<ctype.h>

#include<string.h>

void Tprime();

void Eprime();

void E();

void check();

void T();

void dollar();

char expression[10];

int count, flag;

int main()

{

count = 0;

flag = 0;

printf("\nEnter an Algebraic Expression:\t");

scanf("%s", expression);

E();

if((strlen(expression) == count) && (flag == 0))

{

printf("\nThe Expression %s is Valid\n", expression);

}

else

{

printf("\nThe Expression %s is Invalid\n", expression);

}

}

void E()

{

T();

Eprime();

dollar();

}

void T()

{

check();

Tprime();

}

void Tprime()

{

if(expression[count] == '-')

{

count++;

check();

Tprime();

}

}

void check()

{

if(isalnum(expression[count]))

{

count++;

}

else

{

flag = 1;

}

}

void Eprime()

{

if(expression[count] == '+')

{

count++;

T();

Eprime();

}

}

void dollar()

{

if(expression[count] == '$') count++;

}



