# **Submitted To: Sir Nauman**

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**Subject: CC**

**Roll No:** 25831

**Semester:** 6th

**Section: B**

#include<iostream>

#include<conio.h>

using namespace std;

char input[20];

int i=0;

char lookahead ;

void exp();

void term();

void r();

void r1();

void error();

void match(char t);

void digit();

int main()

{

cout<<"enter string of token";

cin>>input;

lookahead=input[i];

exp();

cout<<"successfully passed";

getch();

return 0;

}

void exp()

{

if(lookahead=='0'|| lookahead=='1')

{

term();

r();

}

else

error();

}

void term()

{

if(lookahead=='0'|| lookahead=='1')

{

digit();

r1();

}

else

error();

}

void r()

{

if(lookahead=='+')

{

match('+');

term();

r();

}

else

if(lookahead=='-')

{

match('-');

term();

r();

}

}

void r1()

{

if(lookahead=='\*')

{

match('\*');

term();

}

else

if(lookahead=='/')

{

match('/');

term();

}

}

void digit()

{

if(lookahead=='0')

match('0');

else if(lookahead=='1')

match('1');

else

error();

}

void error()

{

cout<<"syntax error";

exit(0);

}

void match(char t)

{

if(lookahead==t)

{

lookahead=input[i++];

}

else

error();

}



**Program**

#include<iostream>

#include<conio.h>

using namespace std;

char input[20];

int i=0;

char lookahead;

void exp();

void R1();

void R2();

void term();

void term1();

void match(char t);

void error();

void digit();

int main()

{

cout<<"enter string of tokens";

cin>>input;

lookahead=input[i];

exp();

cout<<"successfullt passed";

getch();

return 0;

}

void exp()

{

if (lookahead=='0'|| lookahead=='1'|| lookahead=='(')

{

term();

R1();

}

else

error();

}

void R1()

{

if(lookahead=='+')

{

match('+');

term();

R1();

}

else

if(lookahead=='-')

{

match('-');

term();

R1();

}

}

void term()

{

if(lookahead=='0' || lookahead=='1' || lookahead=='(' )

{

term1();

R2();

}

else

error();

}

void R2()

{

if(lookahead=='\*')

{

match('\*');

term1();

R2();

}

else

if(lookahead=='/')

{

match('/');

term1();

R2();

}

}

void match(char t)

{

if(lookahead==t)

{

lookahead=input[i++];

}

else

error();

}

void error()

{

cout<<"syntax error";

exit(0);

}

void term1()

{

if( lookahead=='(' )

{

match('(');

exp();

}

else if(lookahead=='0' || lookahead=='1' || lookahead=='(')

{

digit();

}

else

error();

}

void digit()

{

if(lookahead=='0')

match('0');

else if(lookahead=='1')

match('1');

else if(lookahead=='(')

match('(');

else

error();

}

