**/\* Program No.:**

**Aim: WAP to check whether a given expression has equal number of (), {}**

**and []. Also, check whether they are paired correctly and show the**

**corresponding output.**

**\*/**

#include<stdio.h>

#include<string.h>

#include<conio.h>

void main()

{

clrscr();

char \*string;

int count\_b=0, count\_c=0, count\_s=0;

int regular\_b=0, regular\_c=0, regular\_s=0;

int present\_b=0, present\_c=0, present\_s=0;

printf("\n\tEnter the expression: ");

gets(string);

for(int i=0; i<strlen(string); i++)

{

switch(string[i])

{

case '(':count\_b++;present\_b=1;break;

case ')':count\_b--;break;

case '{':count\_c++;present\_c=1;break;

case '}':count\_c--;break;

case '[':count\_s++;present\_s=1;break;

case ']':count\_s--;break;

default:break;

}

if(count\_b<0)

regular\_b=1;

if(count\_c<0)

regular\_c=1;

if(count\_s<0)

regular\_s=1;

}

if(present\_b == 1)

{

if(regular\_b == 0)

{

if(count\_b == 0)

printf("\n\t\t() are equal in numbers.");

else

printf("\n\t\t() are not equal in numbers.");

}

else

printf("\n\t\t() are not correctly paired.");

}

if(present\_c == 1)

{

if(regular\_c == 0)

{

if(count\_c == 0)

printf("\n\t\t{} are equal in numbers.");

else

printf("\n\t\t{} are not equal in numbers.");

}

else

printf("\n\t\t{} are not correctly paired.");

}

if(present\_s == 1)

{

if(regular\_s == 0)

{

if(count\_s == 0)

printf("\n\t\t[] are equal in numbers.");

else

printf("\n\t\t[] are not equal in numbers.");

}

else

printf("\n\t\t[] are not correctly paired.");

}

getch();

}

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