```
Script started on 2020-10-03 07:22:35-0500
m_sadaf1@ares:~$ pwd
/home/students/m_sadaf1
m_sadaf1@ares:~$ cat dice.info
Name: Madiha Sadaf
Class: CSC121 W01

Project: Dice, Dice, and More Dice!
Option: Repeat the program as often as the user desires.
Level: 4
Level: +1
Total Level: 5

Description:

This program helps the user to determine the statistics on
a common die roll and repeats the program as often as the
user desires.

m_sadaf1@ares:~$ cat dice.cpp
#include <iostream>
#include <cstdlib>
#include <ctime>

using namespace std;

int main (void)
{

    srand(static_cast<unsigned>(time(nullptr)));

    double dice_minimum,
           dice_average,
           dice_maximum;

    short count, sides, adjust, total, limit;
    char d;
    char yes_no;

    cout<< "\t\t\tWelcome to the Dice Statistics Program \n";

    cout << "\nWould you like to use the program?  ";
    cin >> yes_no;
    cin.ignore(numeric_limits<streamsize>::max(), '\n');
    while ( toupper(yes_no) == 'Y' )
    {

    cout<< "\nWhat is your dice roll? \n";

    count = 1;
    cin >> ws;
    if (cin.peek()!='d')
    {
        cin >> count;
    }
    cin >> d >> sides;
     adjust = 0;


     while ( isspace( cin.peek() ) && cin.peek() != '\n' )
     {
         cin.ignore();
     }
     if ( cin.peek() != '\n' )
     {
         cin >> d >> adjust;
         if ( d == '-' )
         {
             adjust = static_cast<short>(-adjust);
         }
     }

    cout<< "\nThank you!!!  Calculating.....  Done.\n";

    cout<< "\nWhen rolling "
            << count << ' ' << (sides) << "-sided dice"
             ", your statistics will be:\n" ;

    dice_minimum = count + adjust;
    dice_maximum = count * sides + adjust;
    dice_average = (dice_minimum + dice_maximum) / 2.0;

    cout<< "\nMinimum:";
    cout<< dice_minimum;

    cout<< "\nAverage:";
    cout<< dice_average;

    cout<< "\nMaximum:";
    cout<< dice_maximum;

    cout<< "\n\nA typical dice roll might result in ";
            total = 0;                                                          //accur
            limit = count;
            count = 0;
    while (count != limit)
    {
        total = static_cast<short>
                (total + rand() % sides + 1);                                     //
        count = static_cast<short>(count + 1);
    }
    cout<< total;

    cout << ".\n\nWould you like do it again?  ";
    cin >> yes_no;
    cin.ignore(numeric_limits<streamsize>::max(), '\n');
    }
```

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    cout<< "\nThank you for using DSP!!!\n";

    cout<< "\nEndeavor to have an extemporaneous day!\n";

    return 0;

}
m_sadaf1@ares:~$ CPP dice
dice.cpp***


m_sadaf1@ares:~$ ./dice.out
                        Welcome to the Dice Statistics Program

Would you like to use the program?  yes

What is your dice roll?
3d12

Thank you!!!  Calculating.....  Done.

When rolling 3 12-sided dice, your statistics will be:

Minimum:3
Average:19.5
Maximum:36

A typical dice roll might result in 22.

Would you like do it again?  y

What is your dice roll?
6d12

Thank you!!!  Calculating.....  Done.

When rolling 6 12-sided dice, your statistics will be:

Minimum:6
Average:39
Maximum:72

A typical dice roll might result in 39.

Would you like do it again?  yeah

What is your dice roll?
9d12

Thank you!!!  Calculating.....  Done.

When rolling 9 12-sided dice, your statistics will be:

Minimum:9
Average:58.5
Maximum:108

A typical dice roll might result in 64.

Would you like do it again?  nope

Thank you for using DSP!!!

Endeavor to have an extemporaneous day!
m_sadaf1@ares:~$ exit
exit

Script done on 2020-10-03 07:23:58-0500
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