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1 // Matthew Bowker, CS3060-001, Assignment #1 Problem 2.28
2
3 // Assignment 1a #2.28 (Digits of an Integer) Write a program that inputs a five-digit
  integer, separates the integer into its digits and prints them separated by three
  spaces each.
4 // HINT: Use the integer division and modulus operators.
5
6 #include <iostream>
7 #include <stdio.h>
8
9 using namespace std;
10
11 int main()
12 {
13     // Declaring Variables
14     int number;          // Number given by the user
15     int tenThousands;    // Number in the 10,000s place
16     int thousands;       // Number in the 1,000s place
17     int hundreds;        // Number in the 100s place.
18     int tens;            // Number in the 10s place
19
20     // Printing a welcome message to the user, as well as basic directions.
21     cout << "Hello, and welcome to the Integer splitting application." << endl;
22     cout << "Please enter a five-digit integer" << endl;
23
24     // Receive the input and store it in an integer.
25     cin >> number;
26
27     // Basic error checking... error out if the number isn't five digits.
28     if (number < 10000 || number > 99999) {
29         cout << "That's not a number that I can process!" << endl;
30         return 1;
31     }
32
33
34     // Split out the 10000s
35     tenThousands = number / 10000;
36     number = number % 10000;
37
38     // Split out the 1000s
39     thousands = number / 1000;
40     number = number % 1000;
41
42
43     // Split out the 100s
44     hundreds = number / 100;
45     number = number % 100;
46
47
48     // Split out the 10s
49     tens = number / 10;
50     number = number % 10;
51
52     // Output all of the information to the console
```

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53     cout << tenThousands;
54     cout << "    ";
55     cout << thousands;
56     cout << "    ";
57     cout << hundreds;
58     cout << "    ";
59     cout << tens;
60     cout << "    ";
61     cout << number;
62     cout << endl;
63
64     // We're done here :)
65     return 0;
66 }
67
68
```