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1  // Matthew Bowker, CS3060-001, Assignment #1 Problem 4.36 encryption
2
3  #include <iostream>
4
5  using namespace std;
6
7  int encrypt(int value) {
8      value = value + 7;
9      value = value % 10;
10     return value;
11 }
12
13 int swapNumbers(int value1, int value2, int value3, int value4) {
14     return (value3 * 1000) + (value4 * 100) + (value1 * 10) + value2;
15 }
16
17 int main()
18 {
19     int number;
20     int thousands;
21     int hundreds;
22     int tens;
23
24     cout << "Welcome to the encryption program!" << endl;
25     cout << "Enter the number to encrypt here: ";
26     cin >> number;
27
28     if (number < 1000 || number > 9999) {
29         cout << "That's not a number that I can process!" << endl;
30         return 1;
31     }
32
33     // Split out the 1000s
34     thousands = number / 1000;
35     number = number % 1000;
36
37
38     // Split out the 100s
39     hundreds = number / 100;
40     number = number % 100;
41
42
43     // Split out the 10s
44     tens = number / 10;
45     number = number % 10;
46
47     thousands = encrypt(thousands);
48     hundreds = encrypt(hundreds);
49     tens = encrypt(tens);
50     number = encrypt(number);
51
52     cout << "Here is your encrypted number: " << swapNumbers(thousands, hundreds, tens,
53     number) << endl;
54     return 0;
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54     }
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