

Homework 16, ISTA-220

Chapter 16, C# Step by Step

July 28, 2018

1 Homework

1.1 Readings

Read chapter 16, pages 329 – 352 in the *C# Step by Step* book.

1.2 Discussion Questions

Answer the discussion questions in writing.

1. Give five examples (using valid C# code) of the five bitwise operators listed in the text.
2. Does C# implement the right-shift (>>) operator? If so, give an example of its operation using valid C# code.
3. Explain in detail this code: `bits & (1 << index);`.
4. Explain in detail this code: `bits |= (1 << index);`.
5. Explain in detail this code: `bits &= (1 << index);`.
6. How does C# interpret this? `bool peek = bits[n];`
7. How does C# interpret this? `bits[n] = true;`
8. How does C# interpret this? `bits[n] = true;`
9. Assume that users were assigned read, write, and execute permissions according to this scheme: read = 1, write = 2, execute = 4. How would you interpret the following user permissions:
 - (a) permission = 0
 - (b) permission = 1
 - (c) permission = 2
 - (d) permission = 3
 - (e) permission = 4
 - (f) permission = 5
 - (g) permission = 6
 - (h) permission = 7
10. Answer the previous question by converting the decimal permissions into binary permissions. What does this tell you about using this scheme of permissions?