

### Discussion

Be prepared for class discussions. Since 20% of the grade is class participation everyone is expected to contribute to the online discussions, and to participate in both discussion areas for each module, "Module *n* Discussion" and "Module *n* Leadership Discussion".

While everyone won't have something profound to say about every pattern, the overall level of participation throughout the course must evidence thoughtful consideration of the patterns. Examples of ways to do this are to ask questions, provide an example that you have seen or implemented, or objecting to a pattern either specifically or generally (with some reason, of course). Limited participation will reduce this part of the grade. The instructor will let you know if you are in danger of this.

In addition to the weekly assignments, other ways to prepare for a discussion include the following:

Follow the instructions in §1.8 of *Design Patterns*:

- Read the pattern once through.
- Study the Structure, Participants and Collaborations.
- Look at the Sample Code.

Answer the questions posed in §1.6 of *Design Patterns*:

- Does the intent of the pattern apply to the design problem?
- How does the pattern help to solve the problem? (interfaces, object granularity, etc.)
- What other patterns help to successfully complete the solution of this pattern? What part of the solution isn't provided by the pattern?
- Did this problem merit the use of a pattern?<sup>1</sup>
- What are the invariant and variant parts of the pattern? What can you change without violating the intent of the pattern?
- What principles of OOP are addressed by this pattern? How does that improve the system?
- What questions do you have about the use of the pattern?
- Have you used this pattern before, perhaps inadvertently?
- What patterns that we have looked at already can assist with the use of this pattern?

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<sup>1</sup> *The solution given in a pattern is often complex and introduces new objects not directly related to the original problem. Is the problem complex enough to merit a complex solution, or is a simple solution better? Sometimes a switch statement is more appropriate than a Strategy.*

