**Reading Assignment 4 – HFDP Chapter 3**

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Instructions:

* Read pages 79-107 of your text.
* Type answers to the questions below (don’t remove questions).
* Submit on Blazeview under *RA 4*.

1. What does this sentence from page 85 mean, “When I inherit behavior by subclassing, that behavior is set statically at compile time.”
2. How can you add new responsibilities to an object dynamically? Explain. Hint: this is essentially what the strategy pattern does.
3. What does the open-closed design principle mean? State in your own words.
4. sWhen should you apply the open-closed principle?
5. Consider a standard electrical wall outlet. How does it adhere to the open-closed principle?
6. How does the observer pattern adhere to the open-closed principle?
7. What allows us to pass around a decorated object in place of the original (wrapped) object?
8. How does the decorator pattern allow additional responsibilities to be attached to an object?
9. How does a decorator obtain a reference to the object it is wrapping?
10. Suppose we are making a HouseBlend with Mocha. Explain in words how the cost is calculated.
11. The class diagram on page 101 is missing one very important element – what is it? Hint: it is what makes a decorator a decorator! Look back at the generalized decorator class diagram presented earlier.