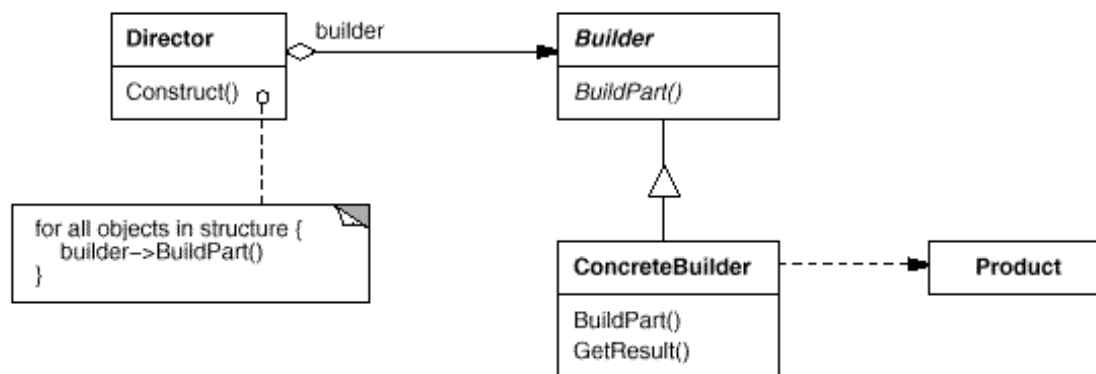


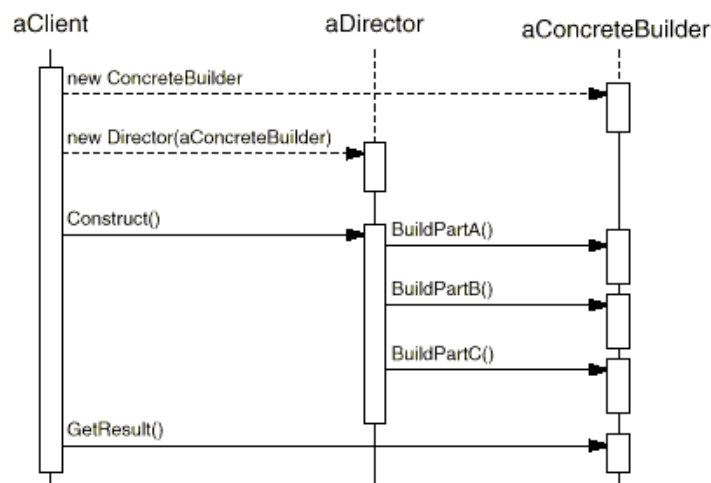
- Problem: Build a webpage that shows different contents w.r.t different actors. For the instructor, he would be able to see everything; for the student, the hyperlinks would be invisible.



- Think how you would achieve this. Use the diagram above as a starting point. What do you think the “builder” would look like?
- The following diagram shows the structure of the Builder pattern. As usual, try to explain what’s going on with this pattern by yourself first.



- See if the sequence diagram helps:

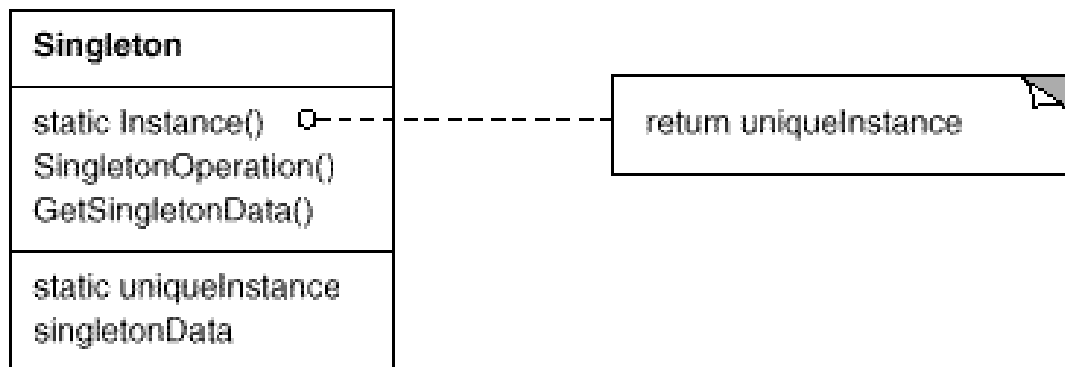


4. Following this pattern, try complete question 1 and the diagram.
5. Differences between Builder and Factory/AbstractFactory?

6. **Creational Patterns and Structural Patterns**

We've discussed Composite pattern, which is a structural pattern. Question: is Composite pattern "mutually exclusive" with a creational pattern, say Factory, Abstract Factory or Builder pattern?

Singleton Pattern: Ensure a class only has one instance, and provide a global point of access to it.



7. The "structure" of Singleton pattern is shown above. What's the keyword here that keeps the "Instance" "unique"?
8. Useful circumstance for Singleton pattern?
9. Two implementation ways:
 - a) Lazy instantiation
 - b) Eager instantiation
 Understand how they work.