7. Key Questions

1. When to use Mediator design pattern?

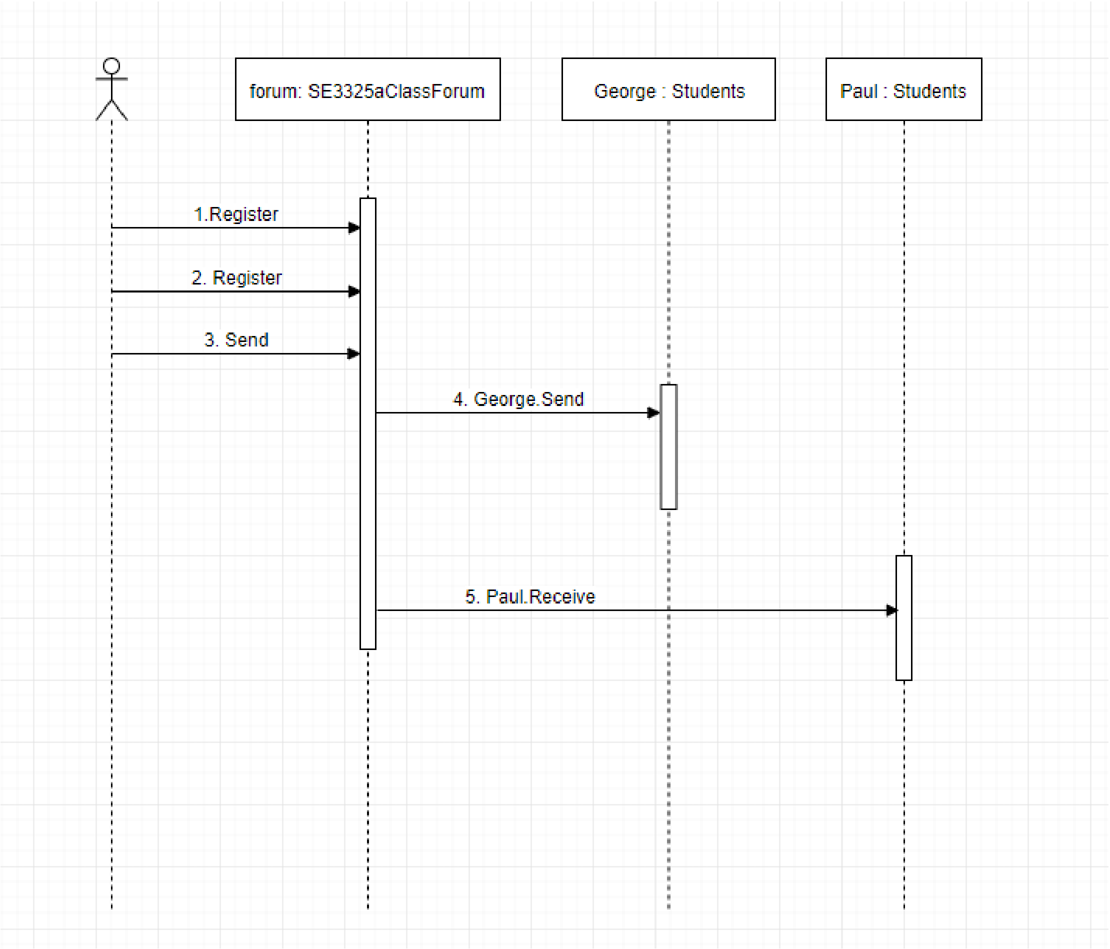
a. There are complex reference relationships between objects in the system, and the system structure is chaotic and difficult to understand.
b. An object is difficult to reuse because it references many other objects and communicates directly with them.
c. You want an intermediate class that encapsulates the behavior of multiple classes without having too many subclasses. This can be achieved by introducing a mediator class, in which the public behavior of object interaction is defined, and a new concrete mediator class can be added if the behavior needs to be changed.

2. What are the Consequences of using Mediator design pattern?

(1) Beneficial consequences of the intermediary model:
a. The mediator pattern simplifies the interaction between objects. It replaces the many-to-many interaction between colleagues with the one-to-many interaction between the mediator and colleagues. The one-to-many relationship is easier to understand, maintain and expand, and the previously incomprehensible network structure is transformed into a relatively simple star structure.
b. The mediator pattern decouples each colleague object. Mediators are beneficial to loose coupling among colleagues. We can change and reuse each colleague and mediator independently. It is more convenient to add new mediators and new colleagues, which better conforms to the "open and close principle".
c. Subclassing can be reduced, and the mediator brings together the behavior that was originally distributed among multiple objects. Changing these behaviors only requires the generation of new mediator subclasses, which makes the individual colleague classes reusable without extending the colleague classes.

(2)Adverse consequences of the intermediary model:
a. The concrete mediator class contains a lot of interaction details between colleagues, which may lead to the concrete mediator class is very complex, making the system difficult to maintain. (i.e., centralizing the interaction complexity between specific coworker classes into the mediator class, resulting in the mediator being the most complex class).

8. Exercises


forum: SE3325aClassForum
George : Students
Paul : Students
1.Register
2. Register
3. Send
4. George.Send
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