

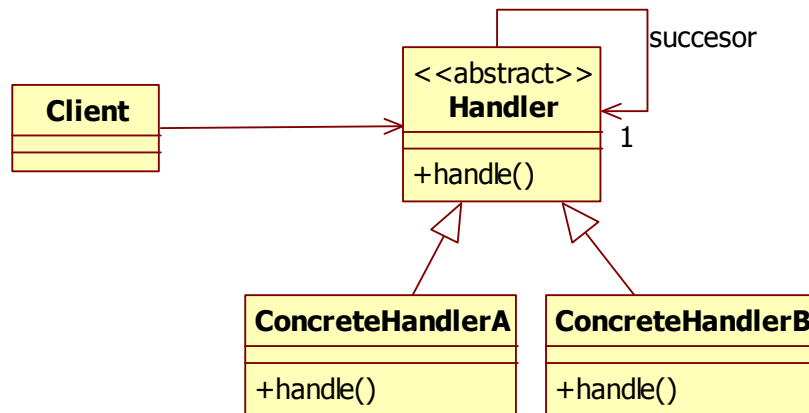
Student ID _____ Student Name _____

Advanced Software Development DE

Midterm Exam May 18, 2013

Question 1 [15 points] {15 minutes}

- a) With the Chain of Responsibility pattern a request is send to a chain of multiple handlers. The handlers themselves decide if they handle the particular request and if they pass the request to the next handler. You use this pattern when a certain request should be handled by a certain handler class and you have more than one handler class. You need flexibility in the chain of handler classes.
- b) .



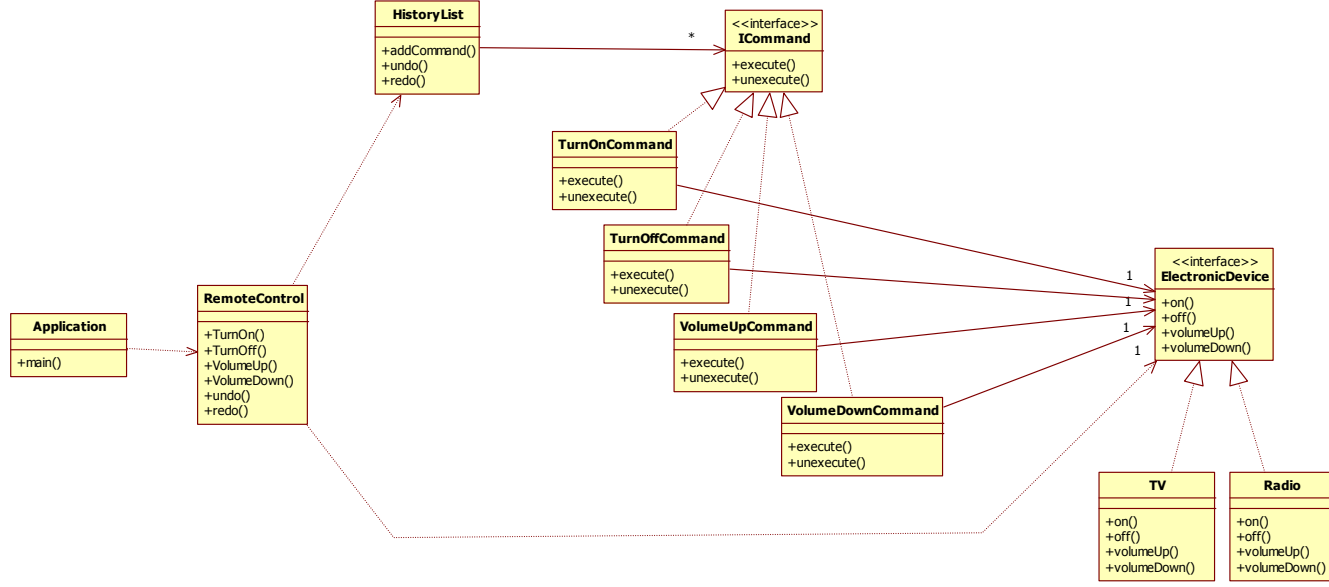
Question 2 [10 points] {15 minutes}

Suppose you have to design and implement a document editor like Microsoft Word. Explain for each of the following design patterns what problem this particular pattern can solve in a document editor like MS Word. Watch out, you have only 15 minutes for this question so your answer should be short and can be just 1 or 2 sentences.

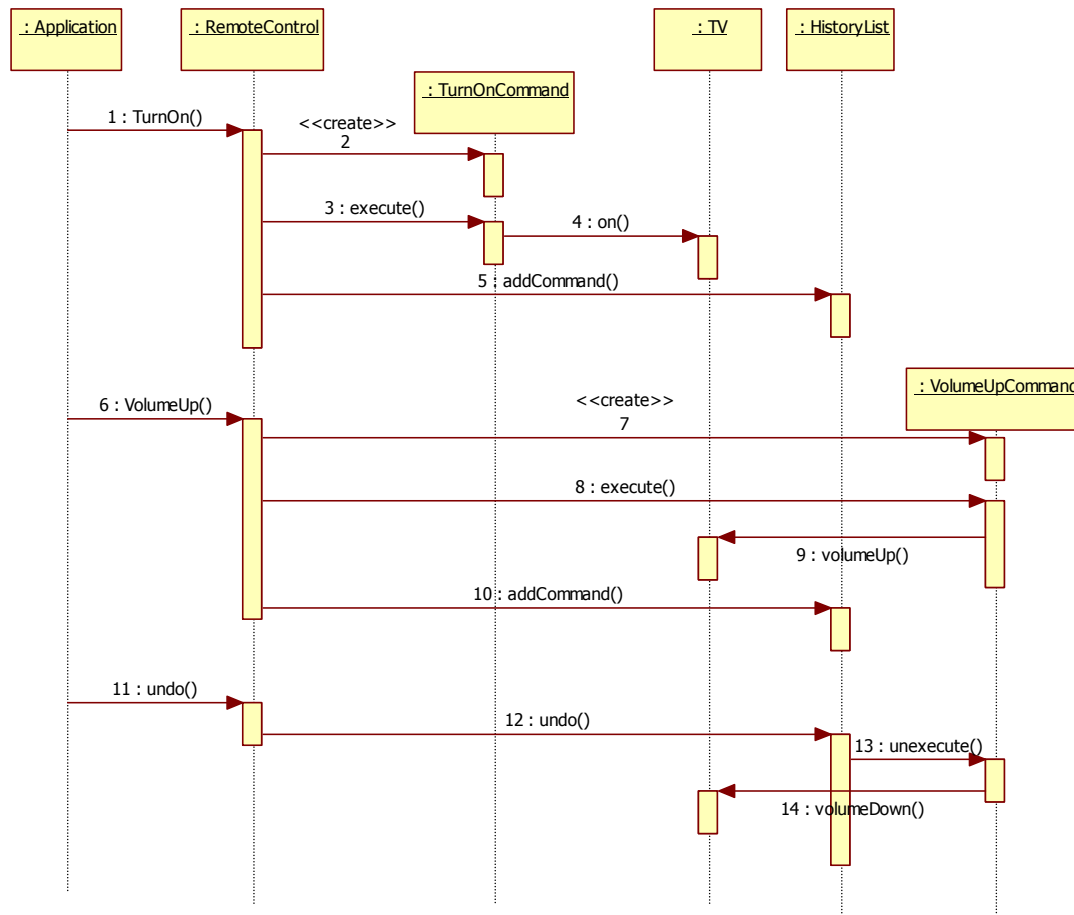
| Pattern | Document editor problem that this pattern solves |
|-----------|---|
| Strategy | Different formatting algorithms |
| Iterator | Spell checking |
| Composite | Document structure |
| Command | Undo/redo functionality |
| Mediator | Mediate between the different buttons and menu items on the GUI |
| State | Different view states (1 page per screen, 2 pages per screen, full screen, web layout, etc) |

Question 3 [40 points] { 50 minutes }

a.



b.



Question 4 [30 points] {40 minutes}

