

Review Questions from Chapter 7

Question 1.

Take a look at the simple TCP example given in the Gang of Four (GOF) State pattern: <http://www.cs.uoregon.edu/classes/cis422/pat5hfso.htm>. Draw a state table from it. Your table should have the following format, where you replace state and event names with those taken from the code.

	Event E1	Event E2	?
State S1	Act 1	NOP	
State S2	Error	Act 3	
?			

Action Glossary

Act 1: <action description>

Act 2: <action description>

?

NOP stands for no operation, i.e., no action taken. **Error** signals that the specific cell should never be reached, e.g., we should never see event E1 in state S2.

Question 2.

Create a state table for a microwave oven. I'll give you the events that you should consider:

E1: open door

E2: close door

E3: set timer

E4: start

E5: stop/suspend

E6: clear/reset-timer-to-zero

Draw the state table that mimics current microwaves as closely as possible. Up to you to decide what states you need.

Question 3.

Draw a sequence diagram that describes a single player's move in your project 1 system. You can assume that there are no errors or exceptions - it is a clean move sequence. If you cannot remember the method names exactly, do the best you can.

Review questions from Chapter 4

Define the following software processes: Waterfall model, evolutionary model, formal methods, reuse-oriented. How might these be applied in incremental or spiral variations? What are the relative advantages and disadvantages of each approach? What kind of systems might be best developed using each of these processes?

What are the steps of risk management? List some representative risks. What are ways of dealing with risks?

Review questions from Chapter 23

What is the difference between estimating effort and cost? What kinds of factors can reduce or increase estimates of effort and cost? (**Note:** We do not ask you to learn the various "cost drivers" of COCOMO by heart. Just have a feel for the kinds of factors that increase or reduce effort levels.) Why can't you derive an estimate of calendar time by taking the number of person-months and dividing by the size of your programming team?

Review questions for CVS

Know how to check in, check out, and update single files and whole directories in CVS. Be able to interpret CVS output. If you have been using CVS consistently, you already know these things.

Review questions for Junit

Write a simple test for a class method. How would you test a method such as `RulesI.getWinningLines ()`? What does the `assert ()` call do?