CSSE2003 Tutorial, week 9

Peform a 'git pull' on the examples repository. The package "week9" contains this week's code. We're still working with a simulation of *The Prisoner*.

The Chimes of Big Ben

Number Six wants to escape. The Village wants Number Six to answer the question "Why did you resign?"

- Read and run the tests. They contain the story for this week.
- What's changed about the Village class to make this story happen this week?
- If sets were immutable, how would the Village change (what would enter need to do) and could anyone escape or be deceived?

Design Patterns and UML Exercise

Think about how we'd redesign the program to model the following:

- Number Two handles the day-to-day running of the Village. But Number Two is not a fixed person – periodically Number Two is replaced. Sometimes an existing villager is asked to fill the role of Number Two.
- When people enter the village, they are restless. Whenever they talk to anyone, they talk about escape. After a while, their will is broken, and they settle into life in the village. Whenever they talk to anyone, they talk about the day's flavor of ice cream. But sometimes a settled villager can be made restless again.
- The village wardens are periodically assigned to spy on a villager, and told to watch for any changes in their behaviour. If a villager becomes restless when a warden is spying on them, the warden will know immediately and notify Number Two.
- Part of Number Two's job is to randomly order a spot check on all villagers. It's up to Number Two to decide what that check should be. One week, it might be to check they are all in their beds at night, not out trying to escape. Another week it might be that their fingernails are clean (not dirty from digging escape tunnels).

1. Identify as many design patterns as you can in the above functionality. Which classes would play which roles in each pattern?
2. Sketch out the UML Class Diagram of your design.

by William Billingsley, 2012