CS 107 Exam 4
Topic Study Guide

Chapter 11: Security

Be able to explain and give an example of each of the concepts and problems below.
1. Our systems need PAPA security: privacy, accuracy, protection, availability.

2. Sources of vulnerability: insecure premises, remote access, bad passwords, angry insiders, social engineering.

3. Who is the enemy? Why? Kids, terrorists, spies, those who want power.

4. How do we achieve secure systems?
   -- Making the system obscure does not work.
   -- Using responsible software development practices helps.
   -- Remember that hacking is like a game and the defenders can only respond.
   -- Try to anticipate or guess at what move the hackers might make next.

Chapter 12: Issues and Ethics

1. The most important problem with computers and applications is that things   do not work the way we want them to work and expect them to work.   There are many reasons for this.   Be able to explain or give an example   of several reasons.

2. We have basic constitutional rights to privacy and to freedom of speech.
   -- Maintaining our privacy is a huge issue.   Be able to explain some threats
      to privacy and some kinds of problems that arise when privacy is lost.
      What can we do to protect our privacy?
   -- What kind of surveillance should be legal?
   -- No right is absolute. Be able to discuss where freedom of speech on the
      internet ends and society's need to protect itself begins.

3. Spyware, viruses, and zombie networks are caused by other people getting   inside your machine and using it for their own purposes. Be able to   define these problems and give examples.

4. Illegal internet activity is a threat.   Be able to discuss the various kinds.

5. Spam, hoaxes, chain letters, and unwanted pop-up ads occupy bandwidth   and fill up our screens.   Be able to discuss whether we should have laws against these things, and what kind of restrictions would be appropriate.