Scenarios

1 - 15
1: Protecting Personal Data

Your customer is a community clinic that works with families with problems of family violence. It has three sites in the same city, including a shelter for battered women and children. The director wants a computerized record and appointment system, networked for the three sites. She wants a few laptop computers on which staffers can carry records when they visit clients at home and stay in touch with clients by email. She asked about an app for staffers’ smartphones by which they could access records at social service agencies. At the shelter, staffers use only first names for clients, but the records contain last names and forwarding addresses of women who have recently left.
2: Email system + targeted ads

Your company is developing a free email service that will include targeted advertising based on the content of the email messages (similar to Google’s Gmail). You are part of the team designing the system. What are your ethical responsibilities?
3: Webcams in School Laptops

As part of your responsibilities, you oversee the installation of software packages for large orders. A recent order of laptops for a local school district requires webcam software to be loaded. You know that this software allows for remote activation of the webcam.
4: Publishing security vulnerabilities

3 MIT students planned a presentation at a security conference describing security vulnerabilities in Boston’s transit fare system. At the request of the MBTA, a judge ordered the students to cancel the presentation and not to distribute their research. The students are debating whether they should circulate their paper on the Web.
Responsible disclosure: the idea that those who discover bugs give stakeholders a grace period to patch vulnerabilities before publishing the details.
5: Specifications

You are a relatively junior programmer working on modules that collect data from loan application forms and convert them to formats required by the parts of the program that evaluate the applications. You find that some demographic data are missing from some forms, particularly race and age. What should your program do? What should you do?
6: Schedule pressures – safety critical

Your team is working on a computer-controlled device for treating cancerous tumors. The computer controls direction, intensity, and timing of a beam that destroys the tumor. Various delays have put the project behind schedule, and the deadline is approaching. There will not be time to complete all the planned testing. The system has been functioning properly in the routine treatment scenarios tested so far. You are the project manager, and you are considering whether to deliver the system on time, while continuing testing and making patches if the team finds bugs.
7: Pressure: Product to Markets

You are a programmer working for a very small start-up company. The company has a modest product line and is now developing a truly innovative new product. Everyone is working 60-hour weeks and the target release date is nine months away. The bulk of the programming and testing is done. You are about to begin the beta testing. (See Section 8.3.1 for an explanation of beta testing.) The owner of the company (who is not a programmer) has learned about an annual industry show that would be ideal for introducing the new product. The show is in two months. The owner talks with the project manager. They decide to skip the beta testing and start making plans for an early release.
8: Software License Violation?

Your company has 25 licenses for a computer program, but you discover that it has been copied onto 80 computers.
9: Going public

Suppose you are a member of a team working on a computer-controlled crash avoidance system for automobiles. You think the system has a flaw that could endanger people. The project manager does not seem concerned and expects to announce completion of the project soon. Do you have an ethical obligation to do something?
10: Selling info

You work for the IRS, the Social Security Administration, a movie-rental company, or an Internet service provider. Someone asks you to get a copy of records about a particular person. He will pay you $500. You know another employee sells records with people’s personal information, and nothing bad has happened to him.. What should you do?
You have a small consulting business. The CyberStuff company plans to buy software to run a cloud data-storage business. CyberStuff wants to hire you to evaluate bids from vendors. Your spouse works for NetWorkx and did most of the work in writing the bid that NetWorkx plans to submit. You read the bid while your spouse was working on it and you think it is excellent. How do you proceed?
12: Kickbacks

You are an administrator at a major university. Your department selects a few brands of security software to recommend to students for their desktop computers, laptops, tablets, and other devices. One of the companies whose software you will evaluate takes you out to dinner, gives you free software (in addition to the security software), offers to pay your expenses to attend a professional conference on computer security, and offers to give the university a percentage of the price for every student who buys its security package. How do you proceed?
A team of programmers is developing a communications system for firefighters to use when fighting a fire. Firefighters will be able to communicate with each other, with supervisors near the scene, and with other emergency personnel. The programmers will test the system in a field near the company office.
14: AI and Sentencing

You are part of a team developing a sophisticated program using artificial intelligence techniques to help judges make sentencing decisions for convicted criminals. How do you proceed?
You are the computer system administrator for a mid-sized company. You can monitor the company network from home, and you frequently work from home. Your niece, a college student, is visiting for a week. She asks to use your computer to check her email. What are your ethical responsibilities?