CSC144 Software Architecture
Lesson 0

Leon Tabak

l.tabak@ieee.org Cornell College

Mount Vernon, Iowa

U.S.A.

07 September 2020

0. Isaac Asimov wrote: "I do not fear computers. I fear the lack them."

   (a) Is Isaac Asimov's name familiar to you? Have you read any of his stories or essays?

   (b) Isaac Asimov was a prolific writer. What did he write?

   Imagine that you are on a long ocean cruise. The ship's library contains the complete works of Isaac Asimov. There are no other books on the ship. You are desperate to read something to pass the time. Where will you begin?

   (c) What do you think Asimov meant when he said that he fears the lack of computers? Do you share his point of view?

1. Who said this: "If you don't know where you are going, you might wind up someplace else."

2. Who said this: "If you don't know where you are going, any road will get you there."

3. Condoleezza Rice said: "In America, with education and hard work, it really does not matter where you came from; it matters only where you are going."

   Who is Condoleezza Rice?

4. Search on the Internet with phrases like "greatest programmers," "best programmers," "best programmers of all time," or "outstanding programmers."

    (a) What are some of the names that you found?

    (b) Do some names appear on more than one of the lists of accomplished programmers that you found?

    (c) Tell use something about two or three programmers whose achievements might inspire us.

5. Search on the Internet with phrases like "keys to becoming a great programmer," "how to become an outstanding programmer," or "become an outstanding Java programmer."

    (a) Who published the advice that you found?

    (b) What are two or three things that you can begin doing right away to make yourself a great Java programmer?

    (c) What are some tips that you might want to file away now but retrieve someday in the future, after you have progressed further in your studies and career?

6. Many people believe that programming computers is hard. Why? Construct your own queries. Search on the Internet to find out how other people answer this question.

    What did you learn?

    Let's make this fun—compose an answer that contains exactly 64 words. For this exercise, you may compose by cutting and pasting. That is, you may copy phrases and sentences from other authors into your response. Of course, you may also invent your own phrases and sentences.

7. Smalltalk was an important milestone in the development of object-oriented programming languages. The creators of the Smalltalk language developed ideas that influenced the development of Java a decade and a half later. Adele Goldberg was a principal member of the team that created Smalltalk.

    Take a look at this interview with Adele Goldberg.

    Make a plan for reading this article.

(a) What questions do we have before we begin reading?

(b) What kinds of additional questions does a quick scan of the article prompt?

(c) How can we divide the work amongst ourselves?

(d) How will we share what we learn with our classmates?

- with a summary of the whole interview or with a focus on sections that we find especially interesting?
- in an essay?
- in an outline?
- with slides?
- with a condensation of the article, created by excerpting from the interview, using our judgment to select and sequence these excerpts, and using some sentences of our own to connect our quotations of Goldberg?

(e) How much time do we need for this task?