Lecture 11: April 26, 2023

Reading: zyBooks text, §10.1–10.2, 10.5, 10.8  Assignments: Homework 2 and Extra Credit 2, due May 10

1. Announcements
   (a) New TA office hours on Friday, now 12:00 noon–1:00pm
   (b) Tutoring available from the CS Tutoring Club; sign up information in an announcement

2. Recursion
   (a) Expressing a problem in terms of a simpler version of itself — use $n!$
   (b) Function calling itself
   (c) Similar to mathematical induction, but backwards
   (d) Structure: base case, recursive case
   (e) What happens if you omit the base case? (Bad things . . . )

3. How it works
   (a) Program stack
   (b) Walk through nfact.c, with $n = 4$
   (c) Note nfact calls nfact

4. Recursive palindrome program
   (a) Go through algorithm, working from outside in
   (b) Write recursive case
   (c) Write base case
   (d) Put them together in ispal.c