

Outline for February 22

Assignments: Homework 4, due on March 4 at 11:55pm

1. Binary search
 - a. Ordered list only: how it works
 - b. Example [*search-3c.py*]
 - c. Recursive [*binsearch.py*]:
 - i. Base case: $high < low$, return failure; word is `list[mid]`, return `mid`
 - ii. Recursive part: if $word < list[mid]$, search `word[low..mid-1]`; if $word > list[mid]$, search `word[mid+1..high]`
2. Putting a program together: Rock, Paper, Scissors
 - a. Goal and general algorithm idea
 - b. Data representation and program structure
 - c. Figure out who wins [*rps-prog1.py*]
 - d. Get computer choice [*rps-prog2.py*]
 - e. Get user input [*rps-prog3.py*]
3. Putting a program together: Cæsar cipher
 - a. Problem statement
 - b. Design and refinement
 - c. Implementation [*caesarenc.py*, *caesardec.py*]