Douglas Sweeting

July 11, 2013

Web Programming Fundamentals – Online

Section 1

Problem Solving

* Define
  1. Trying to get everything across the river with zero loss
* Break the problem apart
  1. The Cat
  2. The Bird
  3. The Seed
* ID potential solutions
  1. Move the cat first
  2. Move the seed first
  3. Move the bird first
* Evaluate each potential solution
  1. The bird will eat the seeds
  2. The cat will eat the bird
  3. The cat and the bird seed will be waiting
* Choose a solution and develop a plan to implement it
  1. You move the cat first
     1. You then go back
  2. You move the bird second
     1. You come back with the cat
  3. You move then move the bird seed
     1. You come back with the bird
  4. You then move the cat
     1. You come back alone
  5. You then go back across for the last time with the bird
     1. Mission accomplished
* Define
  1. How to best match the socks together
* Break the problem apart
  1. How many do you need for 1 matching pair
  2. How many do you need for 3 different matching pair?
* ID potential solutions
  1. For one matching pair
     1. Take all the socks out
     2. Take only 2 socks out
     3. Take only 3 socks out
     4. Take only 4 socks out
  2. For 3 different matching pair.
     1. Take all the socks out
     2. Take out at least 6 socks
     3. Take out at least 8 socks
     4. Take out at least 10 socks
* Evaluate each potential solution
  1. For one Pair
     1. If you take out all the socks you will have one pair
     2. If you take out at least two socks you might have a pair of matching socks
     3. If you take out at least 3 socks out you might have a pair of matching socks
     4. If you take out at least 4 socks you might have a pair of matching sock
  2. For 3 different matching pair
     1. If you take out all the socks you will have one matching pair
     2. If you take out at least 6 socks you might have 3 matching pair
     3. If you take out at least 8 socks you might have 3 matching pair
     4. If you take out at least 10 socks you might have 3 matching pair
* Choose a solution and develop a plan to implement it
  1. For 3 socks
     1. If you had the best luck in the world, you would only need to grab two socks because they would come up a pair
  2. For 3 different socks
     1. If you still had your luck streak going, you could grab 3 pairs of socks and have 3 different colors on the first time at your luckiest day.
* Define
  1. Best way to count on your fingers
* Break the problem apart
* ID potential solutions
* Evaluate each potential solution
* Choose a solution and develop a plan to implement it