Recursion

OutOfMemoryError

Overview

What is It?
- A method by which a function calls itself until a given termination condition is reached
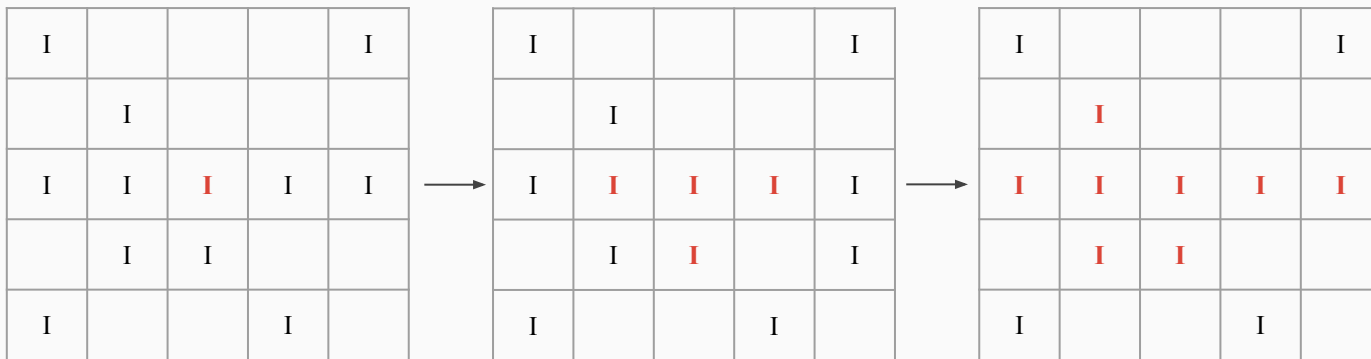
Common Applications
- Sorting algorithms
- Multithreaded applications

Fibonacci Series Demonstration

Project: Tree Burning Recursion

- Emulate a forest of grid size (x * y) burning down
- Start at a random point ($x_a * y_b$) and "burn" all surrounding trees
- Stop when all trees have been burned, or there are no more trees next to a burning tree

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Tasks

1. Recurse through and "burn" all trees in a (5 x 5) forest
   a. Make sure that you don't burn outside the given grid (will result in an error)
   b. Burn only going up, down, left and right (no diagonals)
2. Add support for randomizing the forest
   a. Random forest size
   b. Random tree placement
3. Add support for wind
   a. If wind is blowing from the south, only spread the fire up; if from the south west, then only up and right, etc