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# Crux

## Lecture - 6

Programming Fundamentals -3

Recursion

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## BT : Greedy Pirates

A pirate ship captures a treasure of 1000 golden coins. The treasure has to be split among the 5 pirates: 1, 2, 3, 4, and 5 in order of rank. The pirates have the following important characteristics: infinitely smart, bloodthirsty, greedy. Starting with pirate 5 they can make a proposal how to split up the treasure. This proposal can either be accepted or the pirate is thrown overboard. A proposal is accepted if and only if a majority of the pirates agrees on it. **What proposal should pirate 5 make?**

# Assignments ?

# Debugger

# Recursion

Recursion in computer science is a method where the solution to a problem depends on solutions to smaller instances of the same problem.

# Lets write some code

- Factorial
- Fibonacci
- Check if an array is sorted
- Find Minimum element of an array

## Your Turn

- Write code for a function `power(x,n)` which evaluates  $x^n$ .
- Print number into words recursively
- Given an array
  - Check if it contains 7
  - Find FirstIndex of 7
  - Find LastIndex of 7
  - Return an array containing all indices of 7



Thank You !! 😊

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