***Tigers and People (step 4.5)***

**N** hungry tigers, and **M** hungry people are on the left side of the river... nevermind why. The point is, they should be on the other side because that's where there's food for everyone (nice tiger kibble, And pizza from your successful pizza business for the people – tigers stay outside please). Your job is to help them across.

Conditions: There is a boat which can carry up to 2 creatures at a time. At any given time, if there are more tigers than people on either side of the river, the tigers will eat the people.

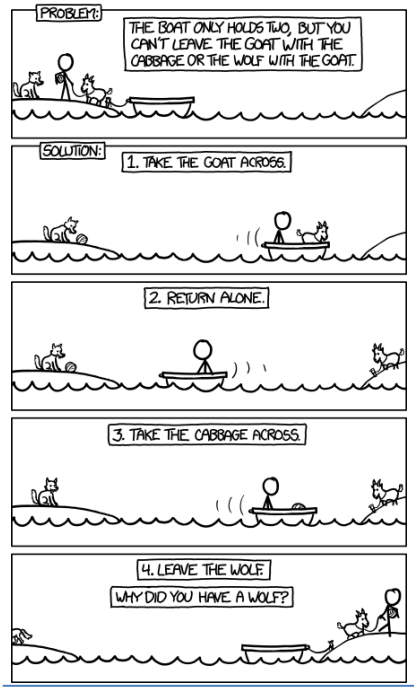
You can easily think of ways to solve this with a search graph, as in Assignment 1. However, here we will try something a bit more interesting: ***Non-deterministic programming.***

Your goal is to use search to ***create at run-time a program that will solve this transporation problem***. To do this, you have access to a small set of simple operations (e.g. loading/unloading creatures from the boat, crossing the river, etc.). Your program must use a search-based process to create a sequence of operations that will solve the problem given the input list of people and tigers, and the boat.

Once you have a working program, you can run it on the initial setup and watch it move things across.

***All your work will take place within the function SearchForPlan()*** within ***TigersAndPeople_starter.py*** so read the comments there, and implement your solution. Be clever. you can use any search procedure we have mentioned thus far, including local search. Note that fixed search patterns such as those in BFS or DFS are unlikely to help you solve this problem (why?) ***Beware loops!***

Once you're done, answer the relevant questions in ***REPORT.TXT***.




← Randall Munroe, from XKCD, has an interesting take on this problem.

But we don't have cabbages, and anyhow, tigers don't eat cabbage.