Comp 408 Artificial Intelligence Fall 2014

**Lab Assignment 2**

Write functions for each of the following:

* 1. Takes a non-negative integer parameter *x* and returns *2x* .
  2. Computing the powerset (set of all subsets) of a given set. Implement as a recursive function.
  3. Computing possible next moves for an 8-puzzle state. (input is one of the 8-puzzle states, output is all possible next moves).
  4. Apply the hill climbing approach on 3, using the two heuristic functions discussed in class ( The # of misplaced tiles and Manhattan distance)