CS 4850/6850 FALL 2017: FINAL PROJECT – DEMO
PLANNING WITH STATES
Instructor Dr. N. Bourbakis

Demo days: Dec 05 and 07, 2017- Russ 152C room, Russ Engr. Building

Consider the state space for the World of Blocks that includes:

(1) 10 blocks (**a, b, c, d, e, f, g, h, i, j**);
(2) The relations among the blocks (ABOVE, ON, CLEAR, TABLE);
(3) Four specific locations (L1, L2, L3, L4) at the table for blocks possible placement; and
(4) The functions (PICK-UP, PUT-DOWN (on table available free location), STACK (on top of an existing block), MOVE, UNSTACK (from a block), NOOP) performed on the blocks. For the transition from one state to the next state you may use the appropriate sequence of functions (actions) logically needed.

Write an algorithm and its code/program, for implementing these sequences of functions/actions, that accepts as inputs:

(1) A given scene (starting state) of these blocks based on their placement on the table (T) using the appropriate locations (L1, L2, L3, L4) or their placement on the top of each other;
(2) A final scene (destination state) to be achieved by executing your program;
(3) Graphically display the sequence of states (including the locations of the blocks in each state) that lead from the **starting state to the destination state**.

The starting and the destination states will be given to you at the DEMO and you run your code/program to prove that it works achieving the expected results at that time.
Programming languages C++, JAVA
Note that programs that **do not run successfully** during the Demo will graded with low score (points) based on the instructor's judgment. **No later Demos will be allowed**;
Demo dates: Dec 05 and Dec 07, 2017.
For your information:
New Grading after the changes

Homework	10
The first two Projects	30
Two Midterms	30
Final Demo + Project	30 (Presentation + Written Report)

Deliverable
(1) a written (computerized) report describing the algorithm with explanations,
(2) the source and the executable code/program, and
(3) the PPt,
date due **Dec 18, 2017, 11:59:59 am**

Good luck.