Assignment #2
Problem Solving
Due: Sunday, 10/11/15, 11:59pm

(40 pts) Let’s use a game to teach algorithmic thinking. Go to http://robozzle.com.
  • After you understand the tutorial, go to the EasytoHard tab to see a list of games to play.
  • Under the tab that says EasytoHard, Pick 4 games to play. For each problem:
    o Write down the name and steps needed to solve each of these puzzles.
    o Run the games to make sure your solution works.
    o Are there many solutions to any of the puzzles?

(40 pts) Complete the 3 of the 4 problem-solving steps to solve the following problem. Find the largest number out of 5 random cards pulled from a deck of cards.
Follow the form outlined as follows:
  • Step 1: Problem Analysis.
    a. Comments about the problem to aid in understanding it.
    b. Description of the knowledge base (this list would include what you would be expected to know to follow the solution).
  • Step 2: Program Design. List the specific steps that would enable another person to find the largest among the 5 numbers presented. Remember, you have to be very explicit here to make sure one can actually accomplish the task using your directions.
    1.
    2.
    3.
    ....
  • Step 4: Program Testing.
    Create a Test Plan with several test cases including the average and extreme cases.

(20 pts) How does your solution change if the size of the list is 50, 500, or n, instead of 5?

Electronically submit your document as a pdf by the assignment due date, using TEACH: https://secure.engr.oregonstate.edu:8000/teach.php?type=want_auth

Make sure you sign-up with a TA for demoing/explaining your Assignment #2 in week 3. The doodle polls are listed on the course home page beside the TA office hours: http://classes.engr.oregonstate.edu/eecs/fall2015/cs160-001/  You are penalized for failure to schedule an appointment within the week or missing a scheduled appointment. In either case, if you are within 1 day (24 hours) of the deadline, you lose 10 points. If you are within 7 days (1 week) of the deadline, then you lose 25 points, anything outside of a week from the deadline to demo is an automatic 50 point deduction.