Submissions: This assignment is due at 11:59 PM on the 10th of Apr, 2019. Each student must submit his or her own assignment. This is a programming assignment. You have to submit code that can be run on a computer. You can use Java, C, C++ or Python to write code. In any case, your submission should be a single file containing your code (not compiled code), and any relevant instructions to compile or run your code as comments. The main interactive session should present the user with the appropriate input menu, and proceeds to present the solution after the input is done. The input/output format for each problem is specified with the problem. For the input format, you may assume the format will be absolutely as specified, i.e., you do not need to check for errors in the input format. For the output, your code must output its results on the standard output in the strict format desired of it (and nothing else).

Academic Integrity: You are encouraged to work in groups, but everyone must write his/her own code. Absolutely no copying is allowed. Please refer to the course policies and schedules about this. If you have worked with other students on the assignment or referred to external sources, please mention all names and sources on your assignment.

Problem 1[100 pts]: Read Sec 6.5 of the book. After this write code to do the following: Asks the user for input integers $n$ and $r$. If $n \leq 0$, or if $r \leq 0$ or $r > n$, it returns nothing. If however $1 \leq r \leq n$, then it returns all $r$ combinations of the set \{1, 2, \ldots, n\}, one by one each on a line.