

**CSC 5451, Professor E. Gethner**  
**Some Projects, Part 1**  
**10 September 2015**  
**Group Presentations in Class on Thursday, 24 September**

Form a group with either two or three students in class and choose two projects below to implement and present to class on September 24th. All projects should be implemented from scratch.

1. Implement the algorithm **MinEdDis** in any way you choose, but be sure to make the applications interactive. Include a webpage with an example of how MinEdDis works with a step by step trace of the example.
2. Implement the Knapsack problem algorithm with the same instructions as above.
3. Change the assumptions on the Knapsack algorithm and do an implementation with the same instructions as above. And example is that you are allowed to use each item more than once. Another is that you are allowed to fill the knapsack as much as possible but not necessarily completely.
4. Implement the Huffman Encoding algorithm (done in class on September 15th) with the same instructions as above.
5. Implement the Greedy Scheduling problem both as given in class and also with the following change: maximize the sum of the lengths of the non-overlapping (as opposed to the number of non-overlapping jobs). Same instructions as above.
6. Wild Card project: come up with your own greedy and/or dynamic programming problem, implement, and give a webpage example.