Project 1: Knapsack and Graph Coloring

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May 7, 2019

1 Knapsack

Due: Monday 5/13

Given: Knapsack Instance
8 <- # of objects
1639 <- # Size bound
0 22 27 <- number, value, size

- Within given time, find best soln. on your computer
- Write function exhaustiveKnapsack(Knapsack &K, int t)
- Use given code to read from files
- Write code to exhaustively run knapsack search
- Classes for items - use `select` functions to select items
- Use `printSolution()` to dump results of knapsack once optimal found
- Submit `resultsX.txt` with results
- Ok to compare results with other groups
- 20-30 instances to solve, 10 mins per piece
- Knapsack is the easy part, get this done!
- Just use brute force

2 Graph Coloring

- Idea: Map of USA, adjacent states can't be same color. How many colors needed? If colors are fixed, what is lowest # of conflicts?