

MAX CUT GRASP REPORT

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Construction Phase:

I used 3 construction algorithms : simple random method, simple greedy method(given in the book), simple semi-greedy method(given in the book)

Local Search:

1. First fit : with shoulder fitting option.
2. Best Fit : with shoulder fitting option.
3. Explore First : Sir mentioned this in his lecture. while finding the best neighbour, current best solution is not compared. So this approach ensures that exploring never stops. If a better solution is found, then best Solution is updated.

in case of shoulder fitting, I used a hash map to track already explored solutions to avoid looping between already explored solutions. But this increased time complexity by a bit.

Note:

Best Fit and explore first takes too much time to compute. So I could not produce data for them.

Experiment data can be found in the excel sheet.