

Q1) a) There are many characteristics of greedy algorithm:

- There are order list of resources in greedy approach
- To construct the solution in optimal way, greedy algorithm maintain two set
- One set contain candidate that have already been considered and chosen while other set contain ~~cost~~ candidate that have been considered rejected.
- Greedy approach forms a set or list of candidate.
- Once a candidate is selected in a situation is there forever once a candidate is excluded from solution it is never reconsidered.

Example:

- Consider problem of converting arbitrary no. of paise coins into standard rupee coin. Thus it is problem of making change.
- In google maps, to find shortest path between source and destination, greedy method is used.
- If we want to keep things in bag ^{to} gain maximum profit on given weight, this is problem of knapsack problem and is solved by greedy method.