

Assignment 7

1. The following assignment you can do as a group (maximum size: 4 students) or individually. Only one student from the group should upload the assignment at Google classroom. On the first page of submission, you have to clearly mention the names and roll numbers of students of the group. The assessment will be based on the novelty of the problem (how different the computation problem is from problems submitted by other groups.), how interesting the problem is, how elegantly you have written the problem statement, pseudocode, and analysis, how elegantly you implemented and analyzed the algorithms, and the viva voce. [Note: Once all students submit the assignment, we will upload all submitted assignments at Google classroom so that you can learn other computational problems that can be solved using the Greedy approach.]
 - 1.1. (T) Find a computational problem that you can solve using the Greedy approach. The problem should be different than the problems discussed in class, and it should be **unique** and **interesting**.
 - 1.2. (T) Write pseudocodes to design the algorithms for the above mentioned computational problem using the Greedy approach as well as dynamic programming.
 - 1.3. (T) Analyze the time complexity of above algorithms.
 - 1.4. (L) Provide the details of Hardware/Software you used to implement algorithms.
 - 1.5. (L) Implement the above algorithms and submit the code (complete programs).