Assignment-2

Analysis and Design of Algorithms (CS311/CS452)

Deadline: 26.12.2020 3:00 PM

Write a C++ program to solve activity selection problem. Generate random starting and finishing time for 5, 10, 15, 20, 25 and 30 activities. Make all necessary checks to ensure valid starting and finishing time. Your program should then implement activity selection problem to select maximum number of activities that can be carried out. Use the following two approaches:

i. Brute Force Approach
ii. Greedy Approach

Analyze both approaches and estimate time complexity in terms of asymptotic notations. Find out the execution time taken for both approaches for all instances. Report this in a document file. Compare your analysis in asymptotic notation and execution time taken in case of each file. The comparison should include text, tables and graphs.

Note: Please follow the deadline. There is no tolerance on cheating or plagiarism. Compress your file as yourname-yourrollno-A2.zip. Send it before deadline on akhattak@qau.edu.pk.