

BSc(H) Computer Science IV Semester

Design and Analysis of Algorithms

Assignment

A one-day seminar is to be organized and the organizers plan to hold multiple sessions during the day. The organizers have invited n speakers for the seminar and every speaker has shared a schedule that mentions the start time of the session and its duration. Organizers want to schedule as many sessions as possible in the seminar. Write an algorithm to finalize the schedule of this seminar.

Later, the organizers realize that the speakers belong to different domains and it would be good to prioritize the sessions as per the popularity of the domain. They decide to assign a weight to every speaker (higher weight for a more popular domain). The organizers are required to finalize a schedule that maximizes the total weight of the scheduled sessions. Will your previous strategy work in this scenario? If yes, justify. If not, state a counter example and give a new strategy to finalize the schedule.