

CS201 Data Structures and Algorithms
Autumn 2021, Details of Project
Total marks: 25, Activity type: Team

Objective: To conduct a theoretical study of the “LUMBERJACK” problem listed in [Optil.io](https://www.optil.io/).

Requirements (Outcomes): For grading: (i) a report need to be submitted; (ii) a presentation on the project

Project Theory Evaluation (Maximum 25 marks):

A report should be submitted by each team which contains a theoretical study of the given project problem. You may think of this as a theoretical counterpart of the project you are implementing for CS211. The report should be a pdf file and should be named as <team-no>.pdf, where <team-no> is the serial number given to your team. The report should be rich in content and should exhibit the theoretical understanding of the problem gained by your team. The report should not exceed 6 pages. The following pointers can be part of the report, but not limited!

- Team details - no., name, members (name and roll numbers)
- A brief description of algorithm
- Pseudocode of algorithm
- Choice of data structures and the reason for the choice.
- A complexity analysis of algorithm
- A list of theoretical observations you made on the problem
- The techniques that you have not tried but like to try if you get time....

Marks distribution:

- ❖ *The content of the report will be evaluated out of 15 marks.*
For organization of the content you receive a maximum 5 marks - make sure that the report is well organized with proper sectioning and there are no grammatical/spelling errors. There will be a 2.5% penalty if the naming convention is not followed for the report.
- ❖ Deadline for submission of the report (without penalty): 5th November (Friday): 11:59 pm
- ❖ Deadline for submission of the report (with 25% penalty): 8th November (Monday): 1:59 pm
- ❖ Presentation (Maximum 10 marks)

Presentation:

(i) each team has to give a presentation of about 5 minutes; (ii) the presentation should be based on the report you submit - you are supposed to convey clearly the main techniques that you used while solving the problem in 5 minutes; (iii) the presentations will be done through Google Meet - you can share your screen and do the presentation with the help of slides or any mode of presentation is fine - even you can prepare an animation if you want; (iv) we will give marks out of 5 for the quality of presentation.