

CS200 – Data Structure & Algorithms

Mid Term Project Guidelines

Guidelines:

1. Project 1 will be done in group of two to three members.
2. Groups cannot be made across sections.
3. Students can pick project according to following Requirements.

Project Domain	You can choose any entity for the project 1 such as pharmacy, journal articles, books, products, students etc.
Count of Entities	At least 25k entities should be scrapped. Scrapping tasks has the option to pause, start, resume and stop, with the progress bar showing the progress of tasks/ number of entities scrapped. Attributes of entity should be at least 7. Bonus: UI has the option to take URL as input and scrap.
UI Requirements	UI should be designed using any python UI library preferably PyQt. One page should display the list of chosen entity.
Sorting	<ul style="list-style-type: none">• UI should have the option for sorting of each column. User has choice to choose any algorithm for sorting for a particular column.• Number of algorithms for sorting should contain all those algorithms studied in class and at least three additional algorithms.• After sorting of column, display time in milliseconds.
Searching	<ul style="list-style-type: none">• UI should have the option for searching based on each column. User has choice to choose any algorithm for sorting for a particular column.• Advanced filters for string columns should be implemented such as contains, end with, starts with etc.
Multi-Level Sorting	<ul style="list-style-type: none">• User should be option to sort using multiple columns.
Multi-Columns Searching	<ul style="list-style-type: none">• User should have the option to search using composite filters such as AND, OR and NOT

4. Working on implementation will be started from September 18, 2024.
5. Project will be evaluated based on rubrics shared in Point 3.
6. The deadline of this project will be October 6, 2024.