## Day 9

Kousik will teach about algorthims inmany ways it is defined as the data structure and other wise data types each step can be carried out. Consider sorting algorithms, like bubble sort, which repeatedly compares adjacent elements and swaps them if they are in the wrong order, gradually arranging the entire list. Search algorithms, such as binary search, efficiently locate a target value within a sorted list by repeatedly dividing the search interval in half. Algorithms are evaluated based on their efficiency, measured in terms of time and space complexity, to determine how well they perform with increasing input sizes. Their design involves careful consideration of data structures and problem constraints to optimize performance. Ultimately, algorithms are the logical engines that power computational processes, translating abstract problems into actionable solutions.