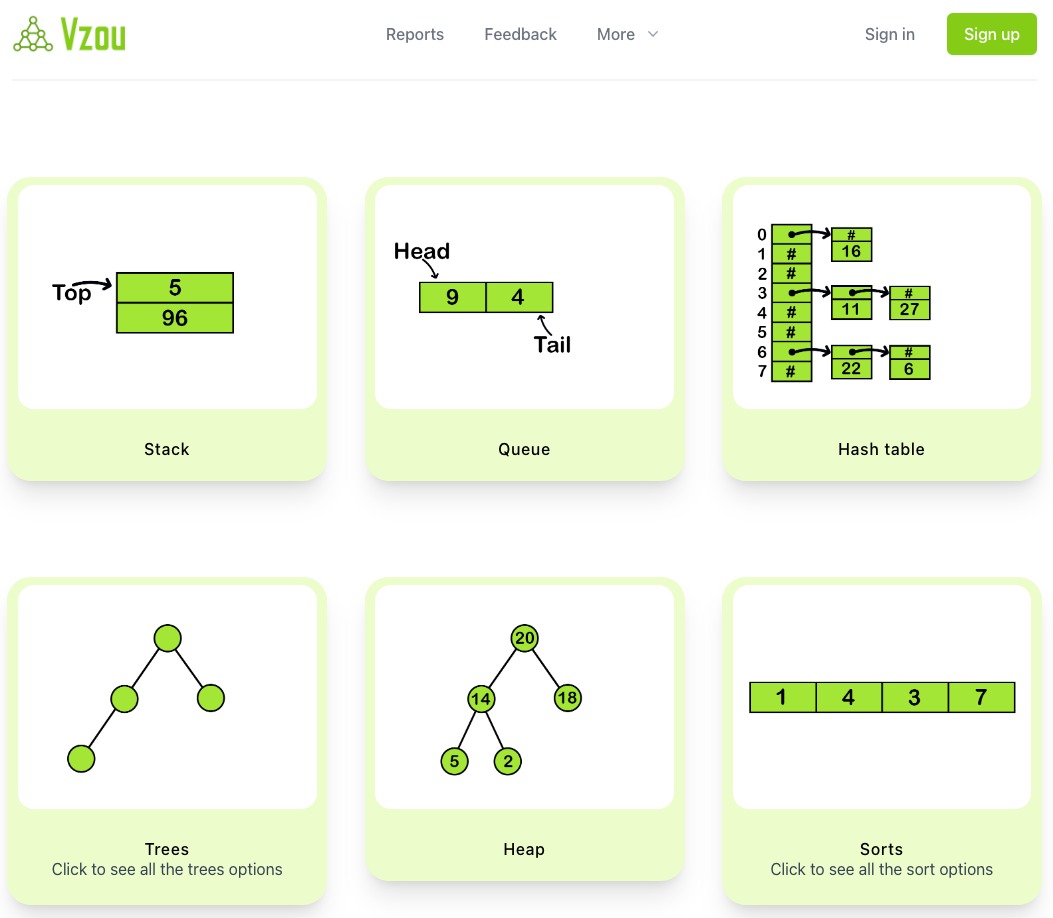
**Data structure and algorithms web simulator**

SE-1-11

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Algorithms and data structures play a critical role in computer science and software engineering, but students often face difficulties in understanding them. Traditional teaching methods have their limitations; thus, more effective visual teaching techniques such as Algorithm Visualization (AV) have been developed. AV illustrates the algorithm's steps through transition effects and animations.   
This project aims to develop an online AV tool to enhance teaching by utilizing animations, pseudocode, runtime information, and user interaction by controlling the input, speed, and steps of the animation. The data collected from the tool can be statistically analyzed to improve the learning experience.

**Keywords:** Algorithms, Data Structures, Algorithm Visualization (AV), Teaching Methods, User Interaction, Usage Statistics.