Lecture 17

Types of Analysis

① Worst Case - provides an upper bound on running time guaranteeing that the algorithm would not run longer

② Average Case - provides a prediction about running time assuming an input is random

More realistic but hard to compute!

③ Best Case - provides a lower bound on running time on input for which an algorithm runs the fastest.

we use the predominant term (degree of the polynomial) to express running time

ex.

$C'n^2$ where $C' = C_2 + C_3$

90% of the running time is spent on ≈ 10% of the code!