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Optimizing Resource Utilization through load balancers

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Abstract

This project addresses the optimization of large-scale computer systems through the implementation and evaluation of load balancing algorithms. The central problem investigated is the uneven distribution of workload among system resources, leading to inefficiencies and resource wastage. The primary objective is to identify and assess effective load balancing algorithms to mitigate this issue. Through the development of computer simulations, various load balancing algorithms were tested and evaluated to determine their efficacy in distributing workload evenly across system resources. The project aims to contribute to the advancement of computer system performance and reliability by identifying optimal load balancing strategies. Ultimately, the project seeks to improve the efficiency and effectiveness of large-scale computer systems through the informed application of load balancing algorithms.