This research aims to investigate and compare two prominent CPU scheduling algorithms: Completely Fair Scheduler (CFS) and Enhanced Earliest Virtual Deadline First (EEVDF). First, I will dive into CFS, which has been a prominent part of modern Linux systems starting from 2007 to 2023. In my research, I will investigate the algorithm implementation, where I will provide an overview of how the algorithm works and its theoretical framework. Then, I will analyze the performance of the algorithm in various situations and workloads.

Then, I will look into the newer improved CPU scheduling algorithm: EEVDF. In 2023, EEVDF has replaced CFS from kernel 6.6 and onwards due to its improvements compared to CFS. As such, in my research, I will first investigate and analyze the EEVDF algorithm implementation and performance of the algorithm in various situations. Then, I will compare EEVDF and CFS's implementations and performance to understand why EEVDF has replaced CFS. My research will mainly rely on scholarly papers, the course textbook, and other material.