

processes. They enable quick data storage, facilitate arithmetic and logical operations, manage instruction flow, and support complex applications requiring rapid processing capabilities. During context switching, the current state of registers is saved, allowing processes to be paused and resumed seamlessly, contributing to efficient multitasking environments. Enhancing Performance in Specialized Applications: Registers are particularly beneficial in specialized computing applications, such as graphics processing and scientific computations, where highperformance floating-point operations are needed. 7