CS313: Computer Architecture

Lab Report-5

210010054 (Suyash), 210010019 (Himanshu)

We built a discrete event simulator for the processor we built so far for this assignment.
The event is a tuple consisting of (event time, event type, requesting element, processing element, and payload). An event queue is a chronological list of events. The clock becoming equal to the event time corresponds to event fire. When an event occurs, the processor's handleEvent() method is called. Handling an event may cause other events to be triggered in the current or future cycle.

- *This event simulator aids in reducing latency when accessing main memory.*

- *As well as the access latency of the processor's ALU, multiplier, and division components.*

Results And Observations for the Event simulator model used on the processor:

Program	No. of Instructions executed	NO. of Cycles	Instructions per cycle (IPC)
evenorodd.asm	26	16	1.625
prime.asm	103	67	1.53731
fibonacci.asm	275	157	1.75159
palindrome.asm	192	110	1.745454
descending.asm	1057	658	1.60638