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	6	244	0.024590164
prime.asm	34	1364	0.024926687
fibonacci.asm	94	3764	0.024973432
palindrome.asm	56	2244	0.024955437
descending.asm	365	14604	0. 024993153