Discrete Event simulator
Lab report

Program	Number of Cycles	Number of Data Hazards	Number of Control Hazards	Number of Dynamic Instructions	Throughput
descending.out	13889	199	176	250	0.0179
prime.out	1335	0	10	29	0.0217
fibonacci.out	3517	0	32	72	0.0204
palindrome.out	2263	3	14	50	0.2209
evenorodd.out	249	3	0	7	0.2811

Observations:

We can see that the number of cycles taken have increased by a lot as compared to the previous version. This is because of the latencies of main memory and ALU.

We can observe that every program has a different value of throughput, as the number of hazards in a program increases the throughput also decreases.

Another observation is that the number of control hazards remain the same whereas the number of data hazards have decreased in some cases. This happens because the data hazards are resolved when the pipeline is stalled due to the event latencies.