Assignment-3 Advanced Architecture

Multicore Simulation

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We implemented a two core X86 full system simulation in Gem5.

The simulated system has Linux OS. It has two levels of Caches and 3 GB of RAM. It has 3 GHz Clock. The CPU model used is Atomic Simple CPU.

The system is simulated by executing *run.py* file which outputs a port number (*generally 3456*) on which the simulated system is accessible. We can boot as many systems as desired in seperate terminals by using a utility (*m5term*) provided in gem5 to connect to the mentioned port number . On running the utility at the port provided, the system boots up and ends in a terminal at the root directory of the Linux System.

The pictorial representation of the configuration of the CPU is in the file *arch.pdf*.
Following is the ScreenShot of the terminal running the Simulated System.