

Assignment 3

Utkarsh Gupta (220020056)
Subhash Chandra P (220120024)

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1 Introduction

In this assignment, we simulated the working of a single cycle processor using Java. Each stage of processing and the latches in between are coded as Java classes. As of now, one instruction occurs per cycle, i.e., one instruction must exit the processor before the next can enter. While this ensures correctness, it is at the cost of time and efficiency. We will work on improving this in the coming assignments, using the notion of pipelining.

2 Statistics

Program Name	Cycles	Instructions	CPI
descending.out	225	225	1
evenodd.out	6	6	1
prime.out	7	7	1
fibonacci.out	90	90	1
palindrome.out	7	7	1

Table 1: Statistics of Assignment .out files