Lebanese American University

School of Arts and Sciences

Department of Computer Science & Mathematics

CSC447: Parallel Programming for Multicore and Cluster Systems

Lab #3: Producer - Consumer

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Note: The machine used is a MacBook Air that has an Apple M1 chip and 8.0 GB of installed RAM

1 Introduction

The producer–consumer problem is a common implementation pattern for cooperating threads. The producers place integers into the queue starting at0 and ending at some predefined maximum while the consumers remove one integer at a time from the queue,reporting each as it is consumed. Each consumer exits after the predefined maximum total removals by all consumers.
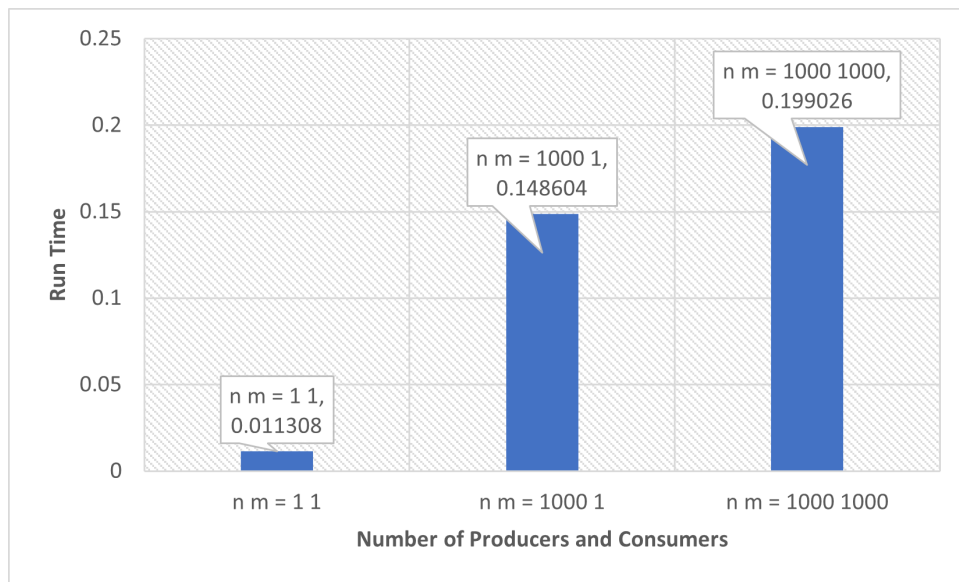
2 Time Plot

Figure 1: Figure showing the run time for different scenarios