Scheduling Report for instance n=1000 511.alb

L. O'Toole and H. Simonis
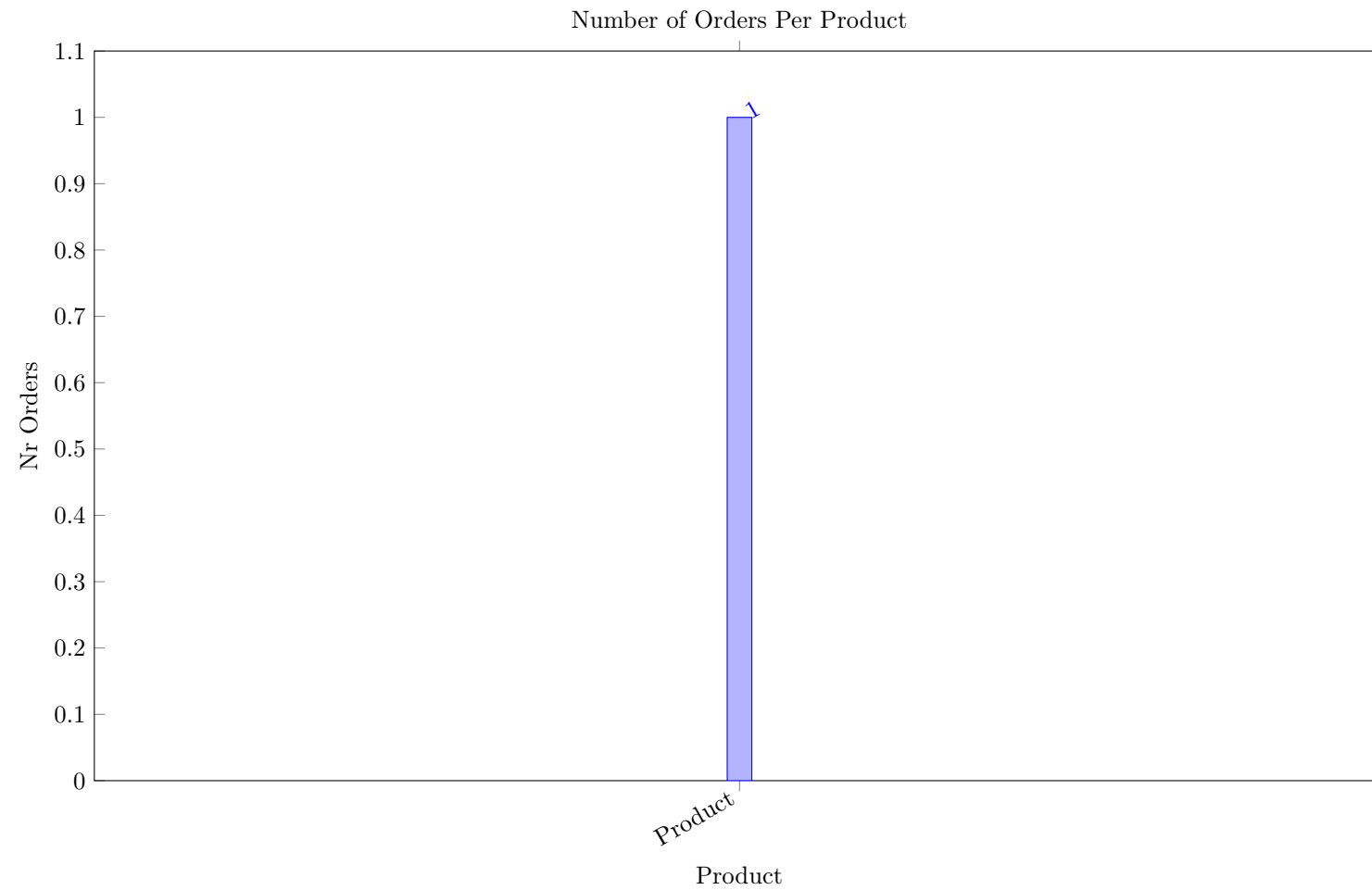
Report Generated on December 6, 2024
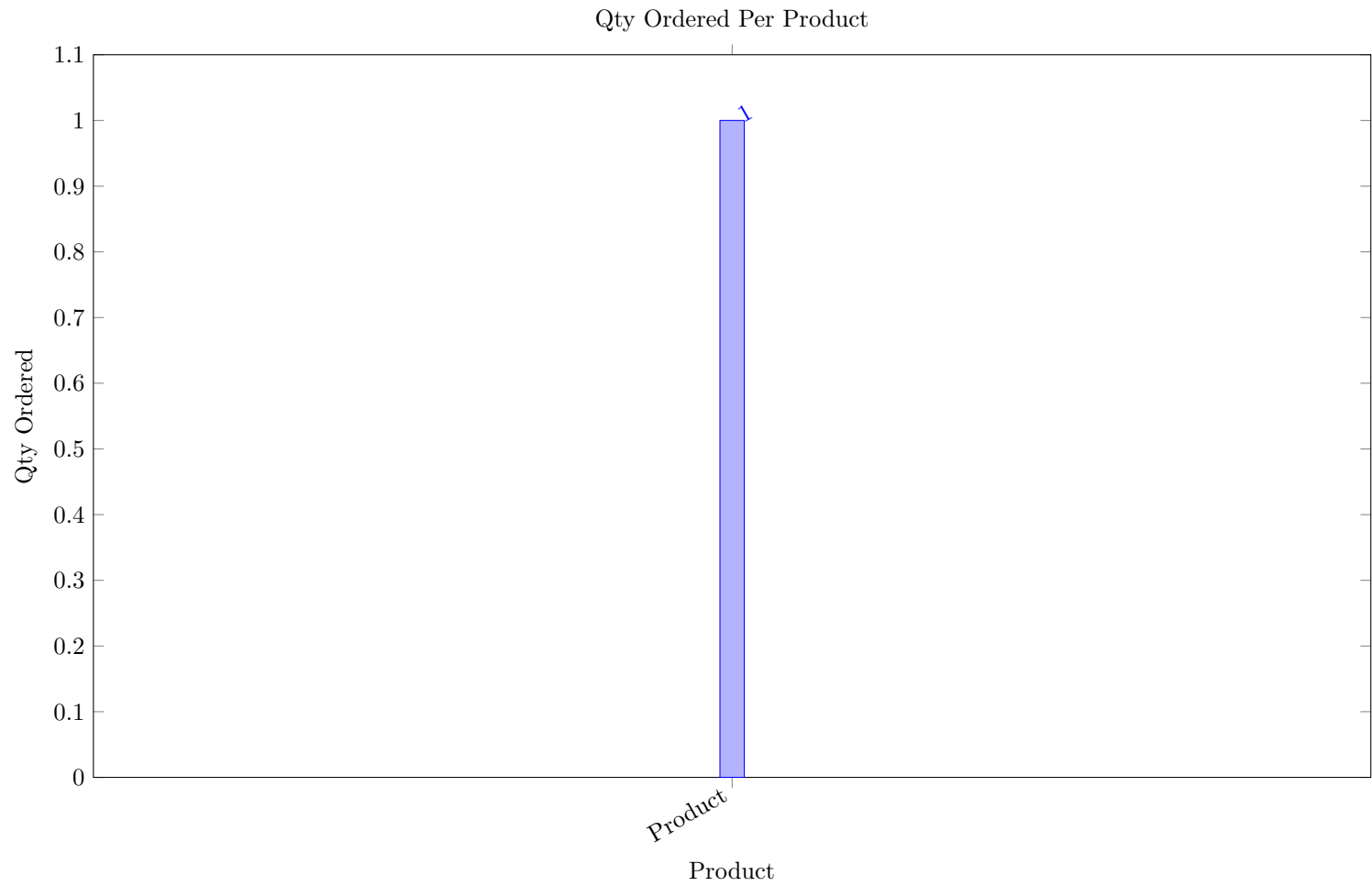
1 Introduction
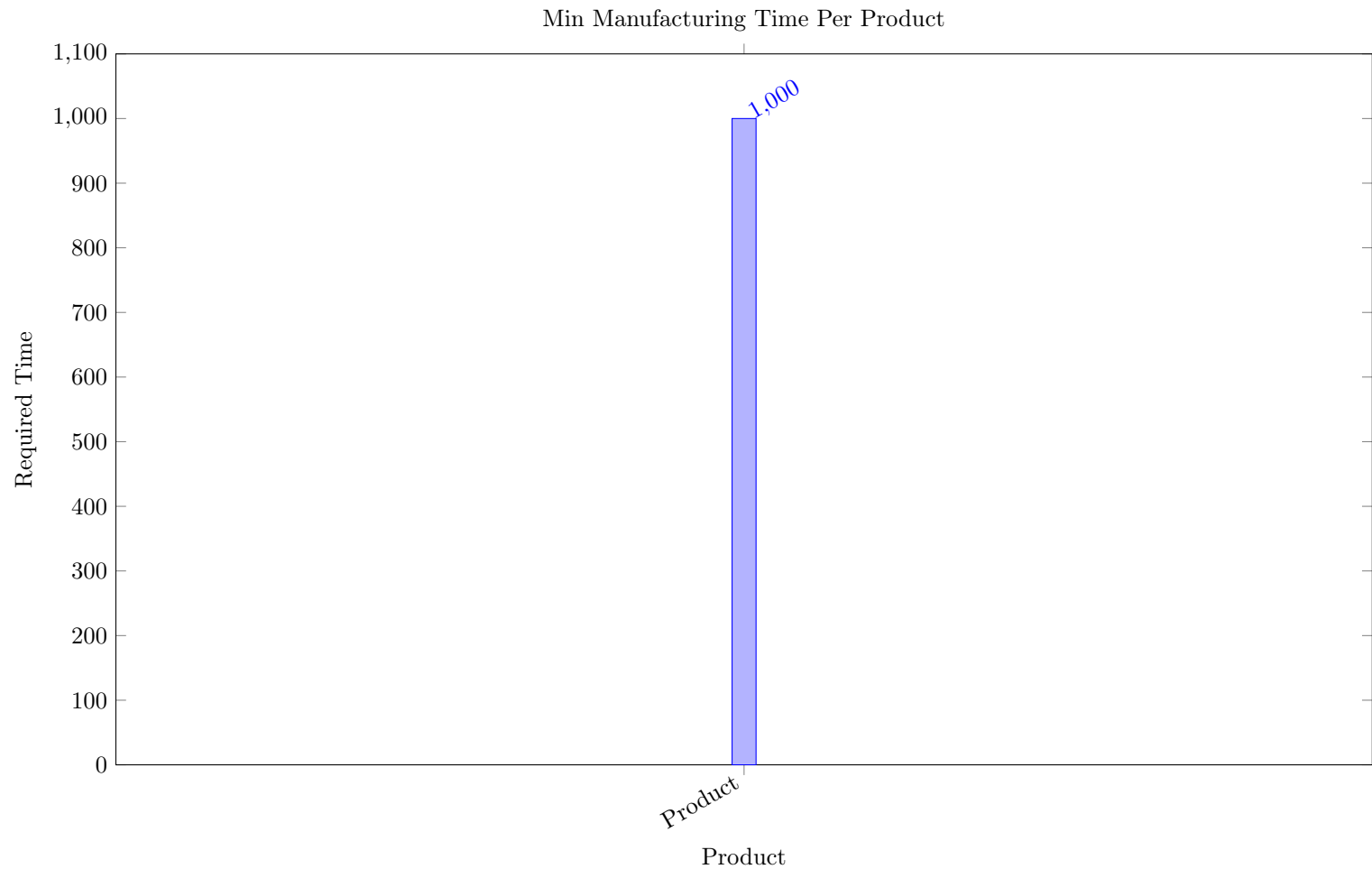
Table 1: Problem

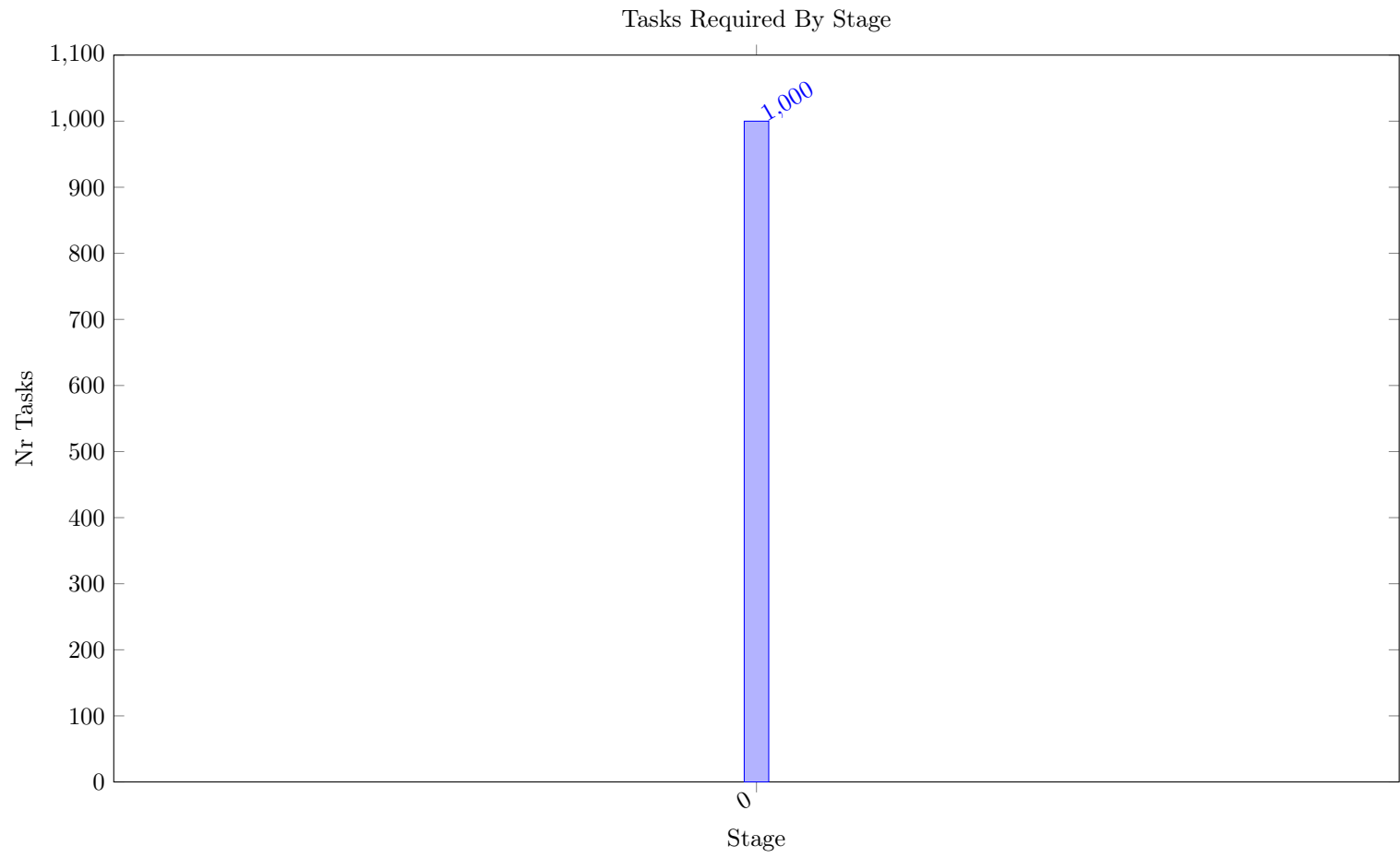| Name	Label	Timepoints as Date	Nr Products	Nr Process	Nr Disjunctive Resources	Nr Cumulative Resources	Nr Orders	Nr Jobs	Nr Tasks
Problem		false	1	1	0	1	1	1	1000

2   Orders

Qty Ordered Per Product

Min Manufacturing Time Per Product

Tasks Required By Stage

Manufacturing Time Required By Stage

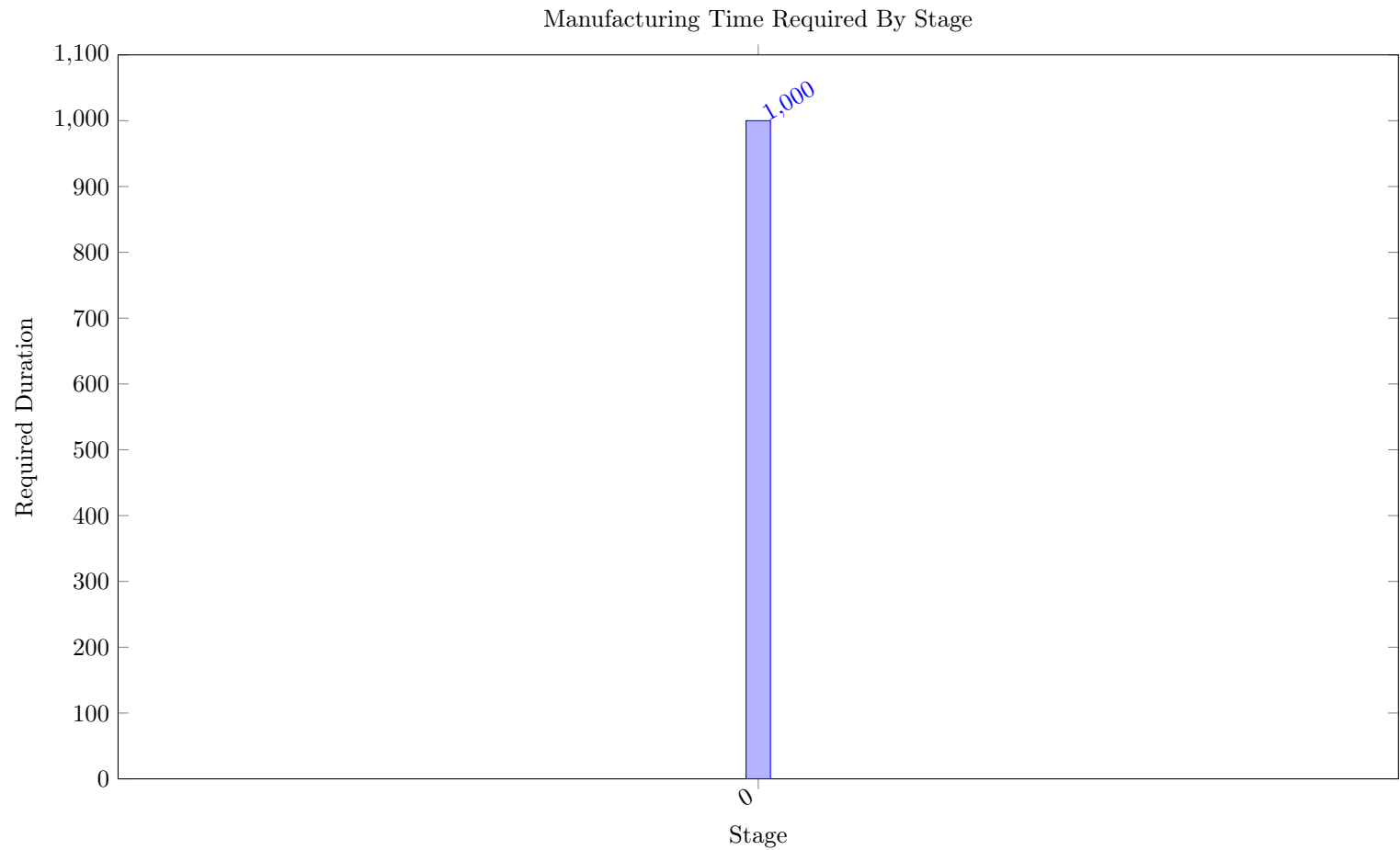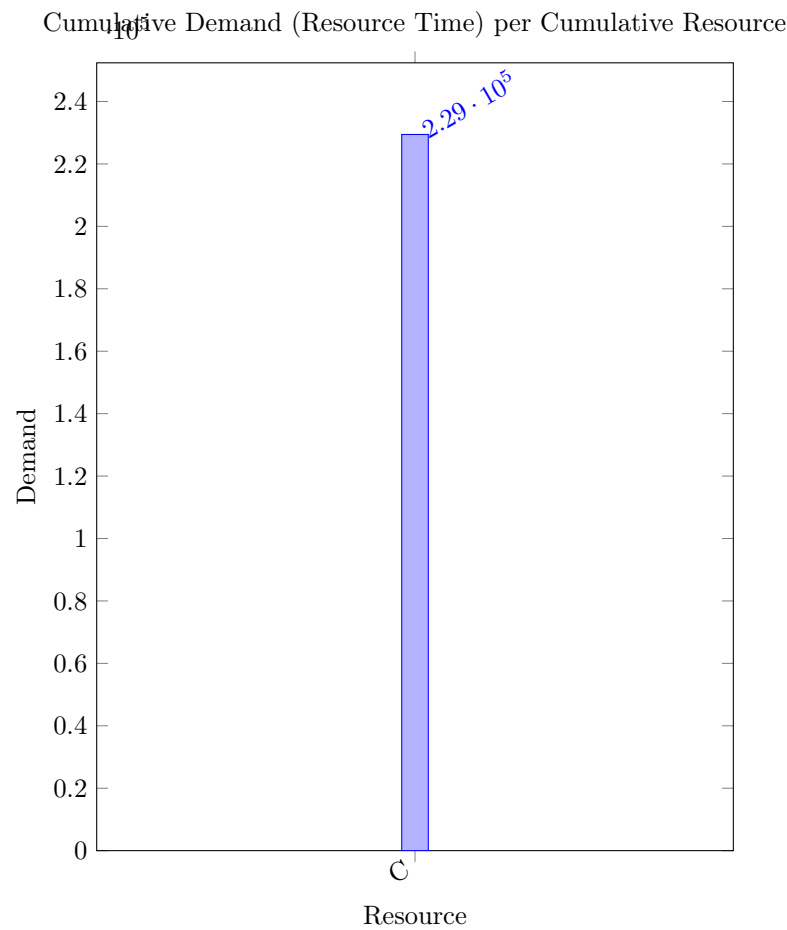Cumulative Demand (Resource Time) per Cumulative Resource

3   Solution

Table 2: Relaxation of Constraints

Name	Label	Enforce Release Date	Enforce Due Date	Enforce Cumulative	Enforce WiP	Enforce Downtime	Objective Type	Weight Makespan	Weight Flowtime	Weight Lateness	Weight Earliness	Nr Threads	Timeout (s)
Sol1		true	false	true	true	true	Makespan	1	1	1	1	8	30
Sol2		true	false	true	true	true	Makespan	1	1	1	1	8	30

Table 3: Solutions (Total 2)

Name	Solver Status	Objective Type	Objective Value	Bound	Gap Percent	Makespan	Flowtime	Total Lateness	Max Lateness	Nr Late	Total Earliness	Max Earliness	Nr Early	Model Type	Time (s)
Sol1	Solution	Makespan	237	230.00	2.95	237	237	237	237	1	0	0	0	CPSat	30.07
Sol2	Solution	Makespan	238	224.00	5.88	238	238	238	238	1	0	0	0	CPSat	30.06

Figure 1: Cost of Intermediate Solutions

Figure 2: Job Gantt for Solution Sol2

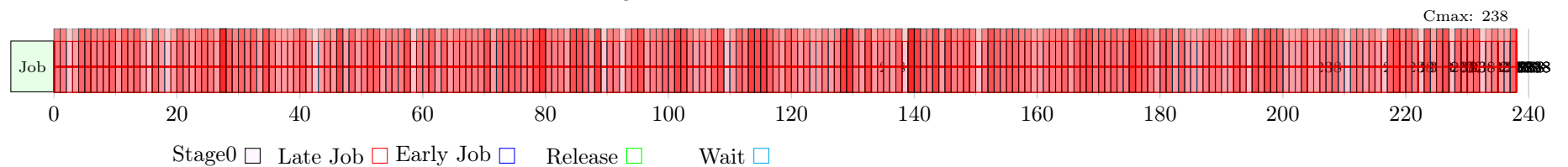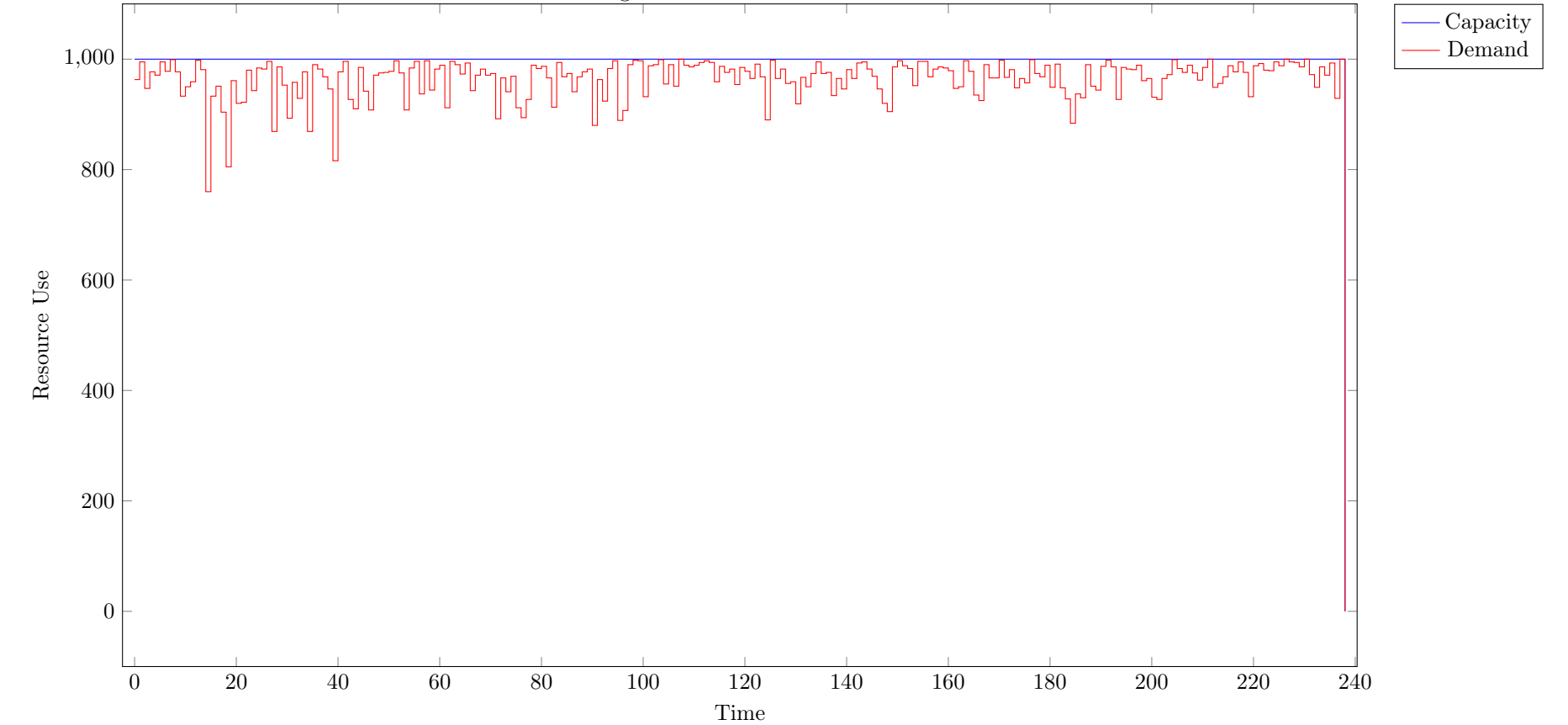Stage0 ☐   Late Job ☐   Early Job ☐   Release ☐   Wait ☐
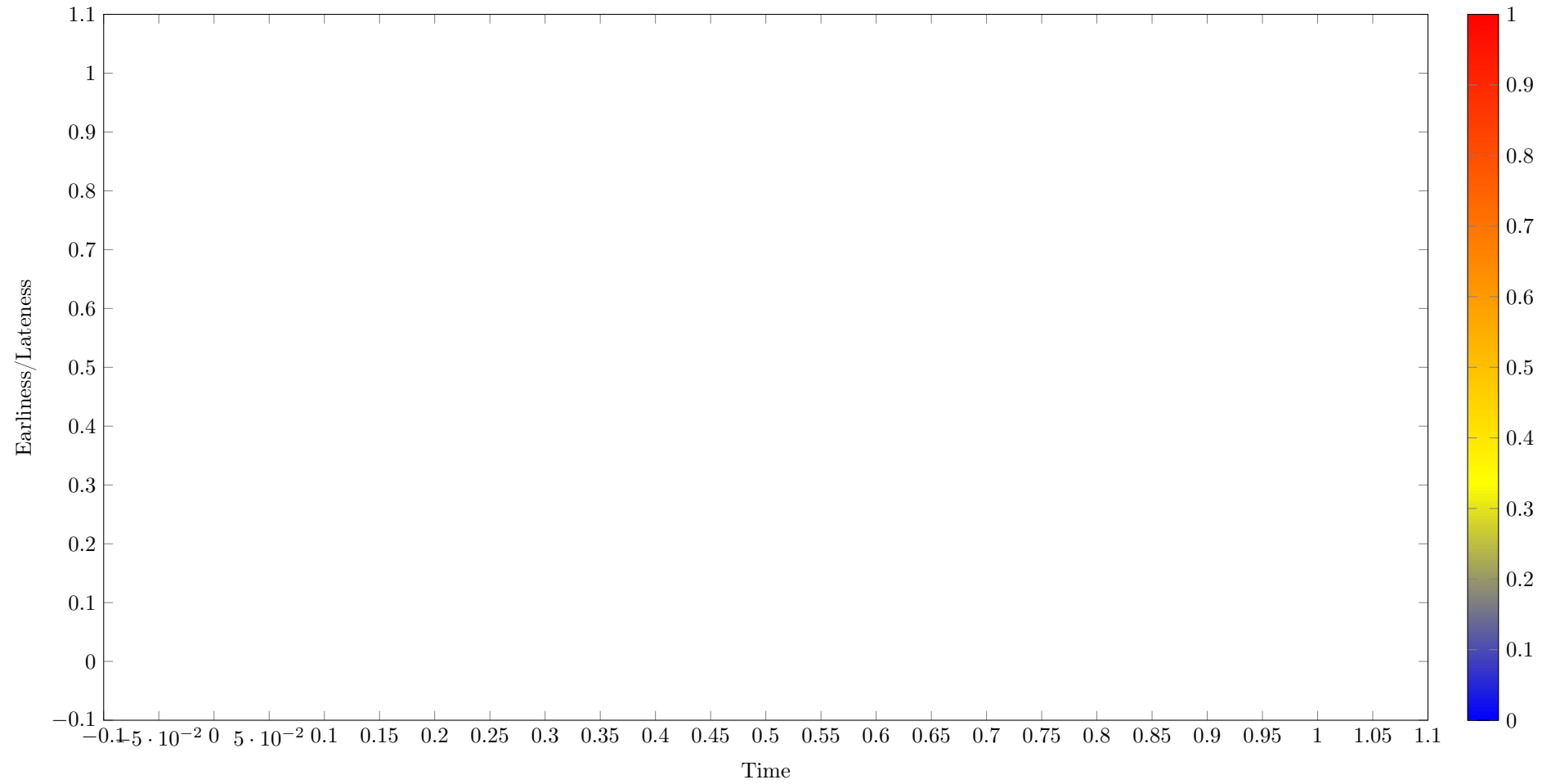
Figure 3: Cumulative Resource Use C

Figure 4: Earliness/Lateness Over Time

Figure 5: Placement for C