**ESPERIMENTI**

**M/M/1 queue with balking**

StopNumber = 200;

numQueue= 1;

numServers= [1];

min\_balking=10;

max\_length=15;

arrivalRate=3;

serviceRate=4;

RESULTS:

Queue 1: Lost Clients = 0  
Queue 1: Average Length = 4.64  
Queue 1: Average Waiting Time = 4.66  
Queue 1: Average Total Time = 5.61

Tempo medio di attesa: 10.0906 ± 6.6494  
Lunghezza media della coda: 10.3451 ± 7.0748  
Clienti che hanno rinunciato (balked): 0.00 ± 0.00

**BENZINAIO**

StopNumber = 200;

numQueue= 2;

numServers= [4,1];

arrivalRate1 = 6;

serviceRate1 = 2;

serviceRate2 = 1;

maxLength = 5;

minPref=1;

maxPref=2;

RESULTS:

Queue 1: Lost Clients = 186  
Queue 1: Average Length = 4.58  
Queue 1: Average Waiting Time = 0.04  
Queue 1: Average Total Time = 3.44  
Queue 2: Lost Clients = 0  
Queue 2: Average Length = 0.01  
Queue 2: Average Waiting Time = 0.29  
Queue 2: Average Total Time = 1.32

arrivalRate1 = 2;

Queue 1: Lost Clients = 187  
Queue 1: Average Length = 4.74  
Queue 1: Average Waiting Time = 4.90  
Queue 1: Average Total Time = 10.26  
Queue 2: Lost Clients = 0  
Queue 2: Average Length = 0.03  
Queue 2: Average Waiting Time = 0.64  
Queue 2: Average Total Time = 2.03

Con 2 servers in queue 2

Queue 1: Lost Clients = 187  
Queue 1: Average Length = 4.72  
Queue 1: Average Waiting Time = 4.79  
Queue 1: Average Total Time = 8.98  
Queue 2: Lost Clients = 0  
Queue 2: Average Length = 0.00  
Queue 2: Average Waiting Time = 0.07  
Queue 2: Average Total Time = 1.29

arrivalRate1 = 0.5;

Queue 1: Lost Clients = 197  
Queue 1: Average Length = 4.86  
Queue 1: Average Waiting Time = 0.00  
Queue 1: Average Total Time = 2.72  
Queue 2: Lost Clients = 0  
Queue 2: Average Length = 0.01  
Queue 2: Average Waiting Time = 0.17  
Queue 2: Average Total Time = 0.83

Con 2 servers in queue 2

Queue 1: Lost Clients = 197  
Queue 1: Average Length = 4.86  
Queue 1: Average Waiting Time = 0.00  
Queue 1: Average Total Time = 2.42  
Queue 2: Lost Clients = 0  
Queue 2: Average Length = 0.00  
Queue 2: Average Waiting Time = 0.00  
Queue 2: Average Total Time = 0.65

StopNumber = 800;

numQueue= 2;

numServers= [4,1];

arrivalRate1 = 1;

serviceRate1 = 0.5;

serviceRate2 = 1;

maxLength = 5;

minPref=1;

maxPref=2;

numRepetitions = 100;

Queue 1: Lost Clients = 117  
Queue 1: Average Length = 1.77  
Queue 1: Average Waiting Time = 1.89  
Queue 1: Average Total Time = 4.39  
Queue 2: Lost Clients = 0  
Queue 2: Average Length = 0.47  
Queue 2: Average Waiting Time = 0.79  
Queue 2: Average Total Time = 1.74

Tempo medio attesa: 2.0891 ± 0.0465  
Lunghezza media coda: 1.8863 ± 0.0384  
Clienti persi (balked): 127.34 ± 4.08