Kristen Beaufait - Assignment #6 - Mass Transit Simulation System UML Sequence Diagram - System Efficiency
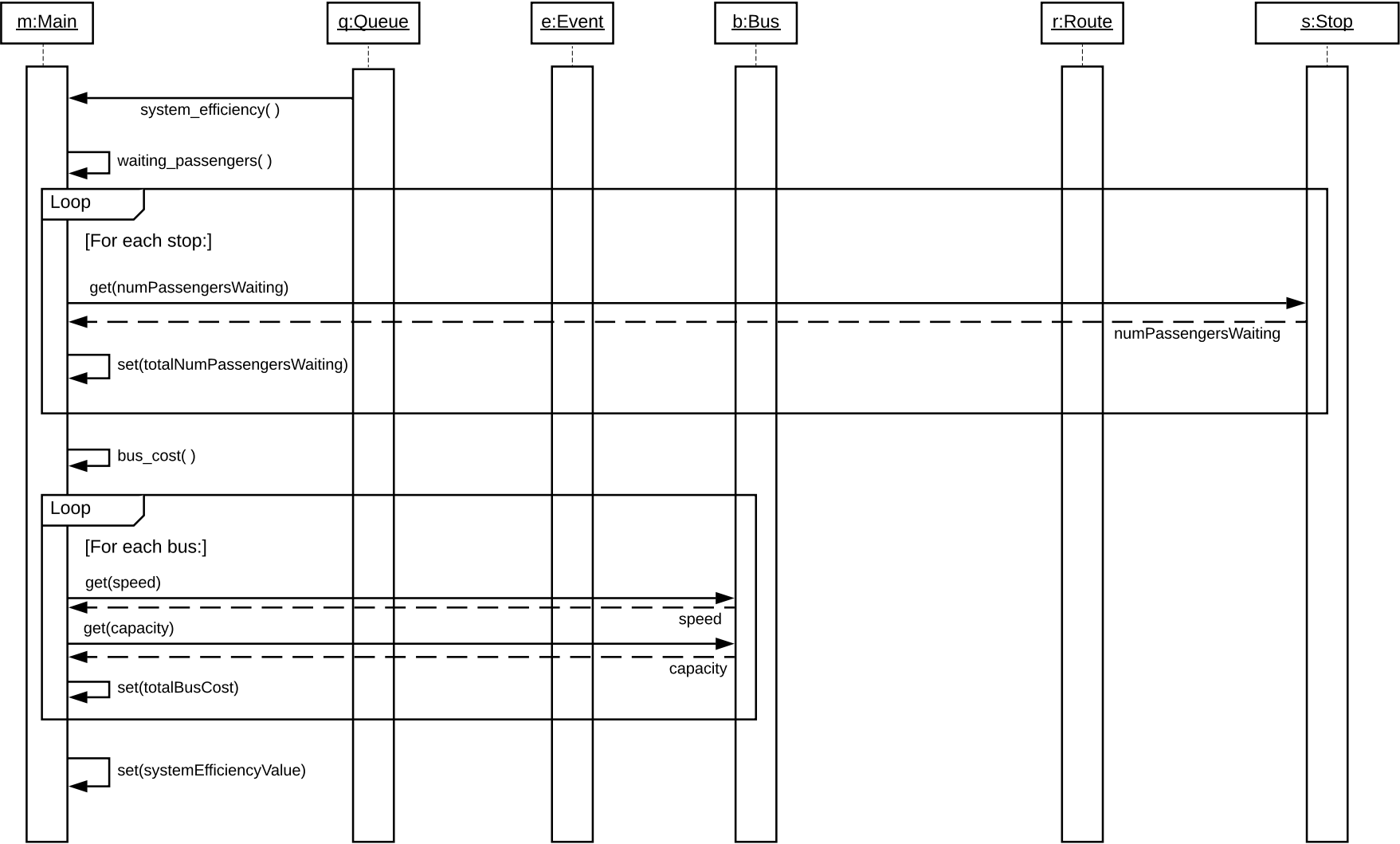**(UML Version 1.4)**

m:Main	q:Queue	e:Event	b:Bus	r:Route	s:Stop

system_efficiency( )

waiting_passengers( )

Loop

[For each stop:]

get(numPassengersWaiting)

numPassengersWaiting

set(totalNumPassengersWaiting)

bus_cost( )

Loop

[For each bus:]

get(speed)

speed

get(capacity)

capacity

set(totalBusCost)

set(systemEfficiencyValue)

system_efficiency( ) is called by updateEventExecutionTimes( ) after passenger management takes place. waiting_passengers( ) is called to sum passengers at all stops and bus_cost( ) is called to compute bus cost for all buses.The provided formula is used to calculate the system efficiency value using the saved constants and is then the graphical display is updated to reflect the new value.