Name: NO NAME

A) Service times

Name of service center	Service Time (S_k)
AuthenticationServer	**0.02**
ContentWritingServer	**0.4**
LoggingServer	**0.09995**

Correct

B) Simulation results

Screenshot:

**This model represents an Open System.
The system description is a closed system. "There are 2000 students"**
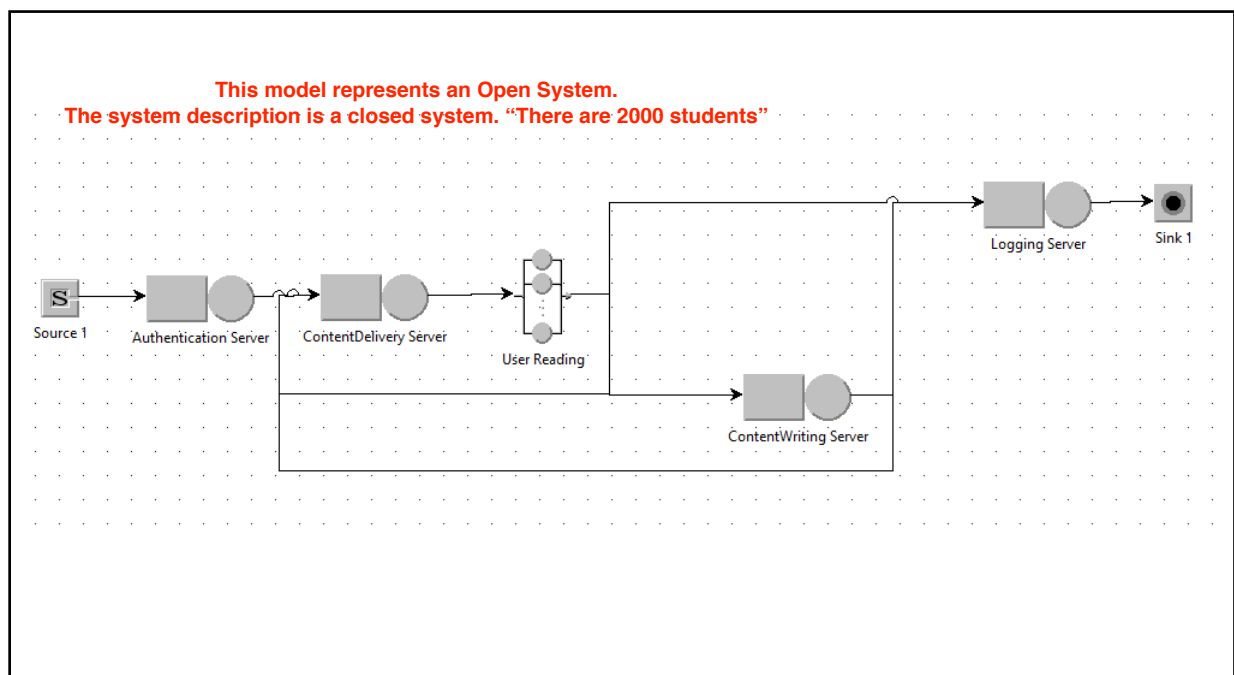
Name of service center	Utilization	Throughput	
AuthenticationServer	0.00789	0.3965	
ContentDeliveryServer	0.40	1.3495	**These four values are not correct.**
ContentWritingServer	0.04	0.1116	
LoggingServer	0.0393	0.3933	

Average System Response Time: 1040

Average time that a student is waiting for a reply from the system during a learning session:

C) System upgrade

Name of service center	Minimum number of resources	Utilization	Throughput
AuthenticationServer			
ContentDeliveryServer			
ContentWritingServer			
LoggingServer			

Average System Response Time: [   ]

Bonus points:

$$D_4 \ = \ 0.48\ s = V_4 \times S_4 = \frac{C_4}{C} \times \frac{B_4}{C_4} = \frac{B_4}{C} = \frac{B_4}{X \times T} = \frac{U_4}{X}$$

$$U_4 \ = \ D_4 \times X = 0.48\ s \times 0.3956 = 0.189888$$

$$X_4 \ = \ \frac{U_4}{S_4} = \frac{0.189888}{0.4} = 0.189888$$