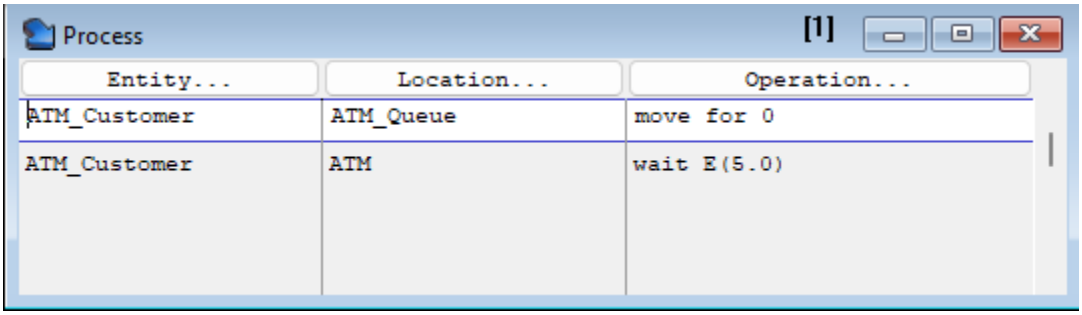
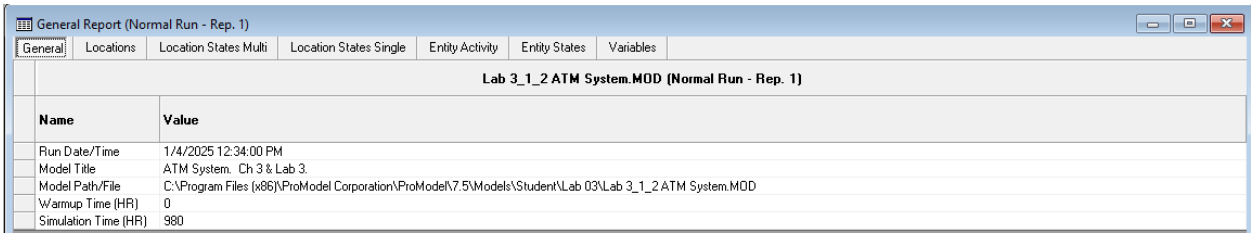
EXERCISE 1

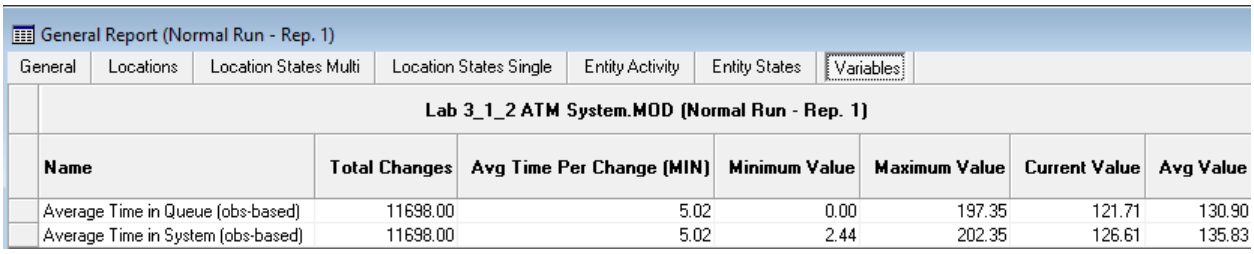
NAME: AREEB IQBAL

ROLL NO: 21A-031-SE

Q1:







Q2:

The assumptions of the ProModel ATM system are:

1. **Infinite Capacity**: The ATM_Queue has infinite capacity, implying no limit to the number of entities waiting in the queue.
2. **FIFO Rule**: The queue follows a First-In-First-Out (FIFO) rule, where entities are served in the order they arrive.

Assessment of Realism:

- The **infinite capacity** assumption is unrealistic for an actual ATM queue, as space is limited in real life.
- The **FIFO assumption** is reasonable, as most queues operate on this principle.

To Improve Realism:

- Set a finite capacity for the ATM_Queue to reflect physical space constraints (e.g., 5 or 10 entities).
- Consider adding priority-based rules or abandoning behavior to simulate real-world scenarios where people might leave if the queue is too long.

Q3:

Arrivals [1]

Entity...	Location...	Qty Each...	First Time...	Occurrences	Frequency	Logic...	Disable
ATM_Customer	ATM_Queue	1	0	inf	E(7.0)	Time_in_Queue = Clock(	No

General Report (Normal Run - Rep. 1)

General | Locations | Location States Multi | Location States Single | Entity Activity | Entity States | Variables

Lab 3_1_2 ATM System.MOD (Normal Run - Rep. 1)

Name	Value
Run Date/Time	1/4/2025 12:48:40 PM
Model Title	ATM System. Ch 3 & Lab 3.
Model Path/File	C:\Program Files (x86)\ProModel Corporation\ProModel\7.5\Models\Student\Lab 03\Lab 3_1_2 ATM System.MOD
Warmup Time (HR)	0
Simulation Time (HR)	980

General Report (Normal Run - Rep. 1)

General | Locations | Location States Multi | Location States Single | Entity Activity | Entity States | Variables

Lab 3_1_2 ATM System.MOD (Normal Run - Rep. 1)

Name	Total Changes	Avg Time Per Change (MIN)	Minimum Value	Maximum Value	Current Value	Avg Value
Average Time in Queue (obs-based)	8459.00	6.95	0.00	12.61	11.16	10.85
Average Time in System (obs-based)	8459.00	6.95	2.44	17.58	16.16	15.77