```
[okalikhan@mtrx-node04pd MS3]$ date
Sun Dec  1 20:32:14 EST 2019
[okalikhan@mtrx-node04pd MS3]$ g++ -std=c++11 ms3.cpp Utilities.cpp Item.cpp  CustomerOrder.cpp Task.cpp LineManager.cpp -Wall -o ms3
[okalikhan@mtrx-node04pd MS3]$ ms3 Inventory1.dat Inventory2.dat CustomerOrders.dat AssemblyLine.dat
Command Line: ms3 Inventory1.dat Inventory2.dat CustomerOrders.dat AssemblyLine.dat

========================
=   Tasks (summary)    =
========================
CPU          [123456]
Memory       [654321]
GPU          [056789]
SSD          [987654]
Power Supply [147852]

========================
=    Tasks (full)      =
========================
CPU          [123456] Quantity: 5          Description: Central Processing Unit
Memory       [654321] Quantity: 10         Description: Basic Flash Memory
GPU          [056789] Quantity: 7          Description: General Porcessing Unit
SSD          [987654] Quantity: 5          Description: Solid State Drive
Power Supply [147852] Quantity: 20         Description: Basic AC Power Supply

========================
= Manual Validation =
========================
getName(): CPU
getSerialNumber(): 123456
getSerialNumber(): 123457
getQuantity(): 5
getQuantity(): 4


========================
=        Orders        =
========================
Elliott C. - Gaming PC
[000000] CPU              - MISSING
[000000] Memory           - MISSING
[000000] GPU              - MISSING
[000000] GPU              - MISSING
[000000] GPU              - MISSING
[000000] SSD              - MISSING
[000000] Power Supply     - MISSING
Chris S. - Laptop
[000000] CPU              - MISSING
[000000] Memory           - MISSING
[000000] SSD              - MISSING
[000000] Power Supply     - MISSING
Mary-Lynn M. - Desktop PC
[000000] CPU              - MISSING
[000000] Memory           - MISSING
[000000] Power Supply     - MISSING
Chris T. - Micro Controller
[000000] GPU              - MISSING
[000000] GPU              - MISSING
[000000] Power Supply     - MISSING
[000000] SSD              - MISSING


========================
=    Validate Tasks    =
========================
CPU --> GPU
Memory --> SSD
GPU --> Memory
SSD --> END OF LINE
Power Supply --> CPU
```

```
========================
=   Filling Orders    =
========================
Filled Elliott C., Gaming PC[Power Supply]
Filled Elliott C., Gaming PC[CPU]
Filled Chris S., Laptop[Power Supply]
Filled Chris S., Laptop[CPU]
Filled Elliott C., Gaming PC[GPU]
Filled Elliott C., Gaming PC[GPU]
Filled Elliott C., Gaming PC[GPU]
Filled Mary-Lynn M., Desktop PC[Power Supply]
Filled Mary-Lynn M., Desktop PC[CPU]
Filled Elliott C., Gaming PC[Memory]
Filled Chris T., Micro Controller[Power Supply]
Filled Chris S., Laptop[Memory]
Filled Elliott C., Gaming PC[SSD]
Filled Mary-Lynn M., Desktop PC[Memory]
Filled Chris T., Micro Controller[GPU]
Filled Chris T., Micro Controller[GPU]
Filled Chris S., Laptop[SSD]
Filled Chris T., Micro Controller[SSD]


========================
=   Completed Orders  =
========================
Elliott C. - Gaming PC
[123458] CPU            - FILLED
[654321] Memory         - FILLED
[567890] GPU            - FILLED
[567900] GPU            - FILLED
[567910] GPU            - FILLED
[987654] SSD            - FILLED
[147852] Power Supply   - FILLED
Chris S. - Laptop
[123459] CPU            - FILLED
[654322] Memory         - FILLED
[987655] SSD            - FILLED
[147853] Power Supply   - FILLED
Mary-Lynn M. - Desktop PC
[123460] CPU            - FILLED
[654323] Memory         - FILLED
[147854] Power Supply   - FILLED
Chris T. - Micro Controller
[567920] GPU            - FILLED
[567930] GPU            - FILLED
[147855] Power Supply   - FILLED
[987656] SSD            - FILLED


========================
= Inventory (full)    =
========================
CPU           [123461] Quantity: 1          Description: Central Processing Unit
Memory        [654324] Quantity: 7          Description: Basic Flash Memory
GPU           [056794] Quantity: 2          Description: General Porcessing Unit
SSD           [987657] Quantity: 2          Description: Solid State Drive
Power Supply [147856] Quantity: 16          Description: Basic AC Power Supply

[okalikhan@mtrx-node04pd MS3]$ 
```