

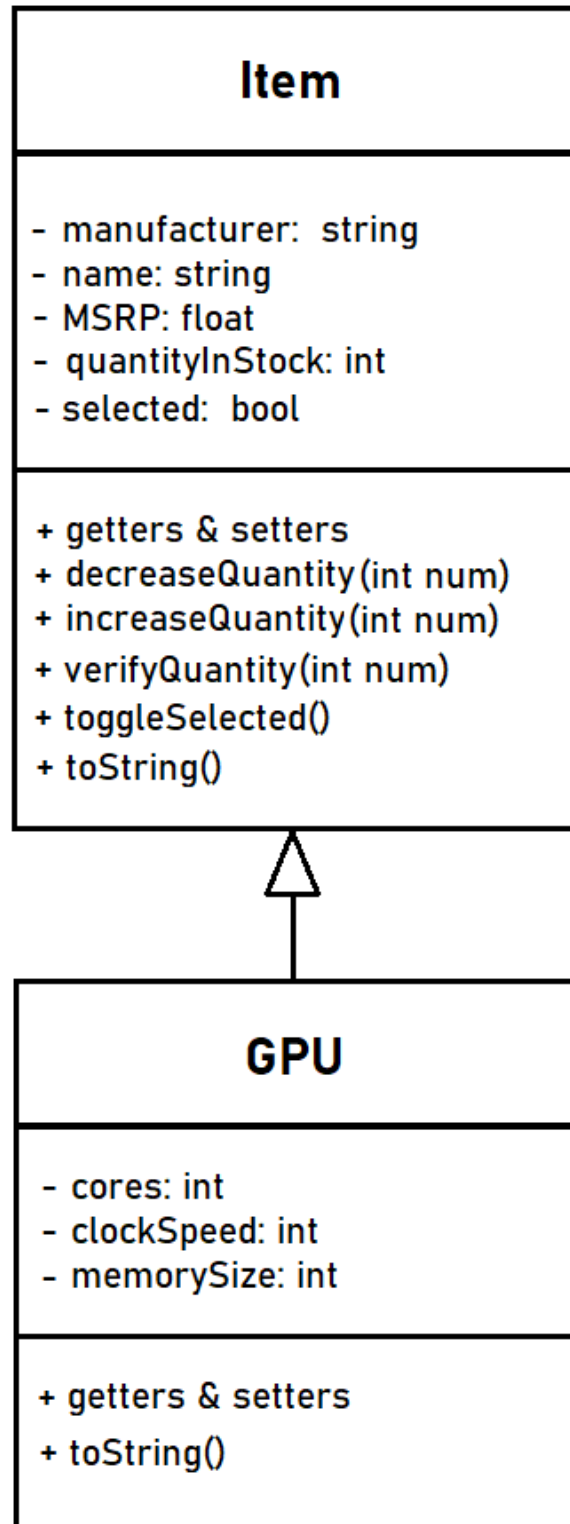
CST-117 Milestone 1

GPU Inventory

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Item class (Base Class) and GPU class (Derived Class) UML



**Description:**

I intend my project to be the inventory of GPUs. I plan to use a base class (Item) and utilize the derived class (GPU). I made this choice for extendibility incase I want to add other product types at a later time.

The GPU class will inherit properties and methods that are applicable to any "item" in the scope of my program. This will save time when implementing additional product types, if I choose to do so.

I chose the properties cores, clockSpeed and memorySize because they are common properties one might look at when considering what graphics card to purchase. This could also be extended quite easily.

**Explanation of methods:**

There are several additional methods related to the quantity property because of potential use. If this inventory was part of an online retailer there may be a need to keep track of inventory in real time. This may be done to prevent over-selling.

The verifyQuantity() method allows the program to verify the amount to reduce is less than or equal to the current inventory. This is intended to prevent over-selling, to allow simple error handling and the ability to inform the consumer that there is not sufficient inventory to complete the sale. Arguably this method could be placed in an inventory manager class and I may do so.

The decreaseQuantity() and increaseQuantity() methods exist to avoid if statements or other methods of determining if the quantity should be increased or decreased. Simply having a setQuantity() method would not make sense.

The toggleSelected() method exists to allow multiple items in the inventory to be removed at one time via a remove or delete method in an inventory class. The remove or delete method would iterate through the "Items" and remove or delete those who's selected property was equal to "True".

The toString() method could be used in the generation of invoices or receipts.