Final Project – UML Diagrams

How to use this document

The diagrams below provide the class names, data attributes, and methods/functions for each class. Additional details about some of the methods/functions are provided below the diagram to provide more information about what the method/function should do.

UML Diagram for the Inventory class

Inventory
_ _id
_ _name
_ _stock _ _price
_ _init_ _(new_id, new_name, new_stock, new_price) get_id() get_name() get_stock() get_price() restock(new_stock) purchase(purch_qty) _ _str_ _()

Additional details for the Inventory class:

The following methods are the accessors for the Inventory class:
- *get_id*
- *get_name*
- *get_stock*
- *get_price*

The following methods are not accessors. They will manipulate the attributes of the Inventory class or print the information stored in Inventory:
- *restock* – should increase the existing quantity of stock ONLY if the new quantity is positive; return **true** if valid quantity; return **false** if quantity is invalid
- *purchase* – should deduct the quantity from the product stock and return **true** if there is sufficient stock on hand; if there is insufficient stock, the product stock should not change and **false** should be returned
- *_ _str_ _* – should print the attributes of the class (HINT: Format the data to print nicely so that you can use this method to create the menu)

UML Diagram for the TransactionItem class

TransactionItem
_ _id _ _name _ _quantity _ _price
_ _init_ _() get_id() set_id(new_id) get_name() set_name(new_name) get_qty() set_qty(new_qty) get_price() set_price(new_price) calc_cost() _ _str_ _()

Additional details for the TransactionItem class:

The following methods are the accessors and mutators for the TransactionItem class:

- *get_id*
- *set_id*
- *get_name*
- *set_name*
- *get_qty*
- *set_qty*
- *get_price*
- *set_price*

The following methods are not accessors or mutators. They will manipulate the attributes of the Inventory class or print the information stored in TransactionItem:

- *calc_cost* – calculate the cost for the particular item purchased based on price and quantity; returns cost
- *_ _str_ _* – should print the attributes of the class (HINT: Format the data to print nicely so that you can use this method to create the invoice)