ProductQuantityPair

- product : Product
- quantity : int

+ ProductQuantityPair(product: Product, quantity: int)
+ ProductQuantityPair(product: Product)

+ getQuantity() : int
+ void setQuantity(quantity: int)
+ getProduct() : Product

Product

- count : int
- name : String
- id : String
- price : double

+ Product(name: String , price: double)

+ getName() : String
+ getId() : String
+ getPrice() : double

ProductQuantityCollection

- IDtoPQPair : HashMap<String,ProductQuantityPair>

+ ProductQuantityCollection()

+ getQuantity(productID: String) : int
+ getProduct(productID: String) : Product
+ hasProduct(productID: String) : boolean
+ addProductToCollection(product:Product, quantity: int) : void
+ removeProductFromCollection(productID: String) : void
+ setQuantity(productID: String, quantity: int) : void
- changeQuantity(productID: String, amount: int) : void
+ add(productID: String, amount: int) : void
+ remove(productID: String, amount: int) : void
+ getAllProductIDs() : Stream<String>
+ getTotalProductCount() : int
+ isEmpty() : boolean

Inventory

+ Inventory()

+ setQuantity(String productID, int quantity) : void

ShoppingCart

- cartCount : int
- cartID : String

+ ShoppingCart()

+ getCartID() : String
+ void setQuantity(String productID, int quantity)
+ getTotalPriceOfCart() : double
+ getItemCountInCart() : int

StoreManager

- inventory : Inventory
- IDtoShoppingCart: HashMap<String, ShoppingCart>

+ StoreManager()

+ hasProductInInventory(productID: String): boolean
+ getProduct(productID: String): Product
+ getStockOfProduct(productID: String): int
+ getAllProductIDsInInventory() : Stream<String>
+ createNewCart() : String
- getCart(cartID: String): ShoppingCart
+ removeCart(cartID: String): void
+ resetCart(cartID: String): void
+ hasCart(cartID: String): boolean
+ addToCart(cartID: String, productID: String, quantity: int): void
+ removeFromCart(cartID: String, productID: String , quantity: int): void
+ getQuantityInCart(cartID: String, productID: String): int
+ getCartItemCount(cartID: String): int
+ getCartTotalPrice(cartID: String): double
+ getAllProductIDsInCart(cartID: String): Stream<String>

StoreView

- storeManager : StoreManager
- cartID : String

+ StoreView(storeManager: StoreManager)

+ printInventory(): void
+ printCart(): void
+ printCartSummary(): void
+ displayGUI() : boolean
+ main(String[] args): void