

STORE CLASS:				
METHODS:	Store Interaction:	Shopping Cart Interaction:	Item Interaction:	TextUI Interaction:
Store(string filename)	Constructor of store class, takes in file and initializes store	None	None	None
string DisplayInventory()	Displays inventory of store	None	Interacts with item.cpp's ToString function	Used in RouteChoice to Displays inventory
map<int, string> Items()	Maps item ids to strings for items in the inventory	none	Item ids are mapped with string versions	Used in RouteChoice to get string versions of elements in Items() to add
map<int, string> CartItems()	Maps item ids to strings for items in the cart	Item ids mapped to shopping cart	Item ids are mapped with string versions	Used in RouteChoice to get string versions of elements in CartItems() to remove
void AddItemToCart(int item_id)	Adds item to cart	Adds item to in_cart_	Item is copied and added to the cart	Used in RouteChoice to add users choice item to the cart
void RemoveItemFromCart(int item_id)	Removes item from cart	Removes Item from in_cart	Item removed from cart	Used in RouteChoice to remove users choice item from the cart
string DisplayCart()	Displays contents of the cart	Items in in_cart are displayed	items string versions are displayed	Called in RouteChoice to display cart
double Checkout()	Calculates the cost of all items in cart and clears the cart	clear_cart is called and the shopping cart is cleared	Items in the cart are used to calculate cost	Called in RouteChoice when users input to checkout
void ClearCart()	Clears the shopping cart	in_cart is cleared	Items that were added to the cart are cleared from it	Called in RouteChoice from Checkout and leaving
string get_name()	Gets name of store	none	none	none

SHOPPING CART CLASS:				
METHODS:	Store Interaction:	Shopping Cart Interaction:	Item Interaction:	TextUI Interaction:
void AddItem(Item * to_add)	Store items are added to cart	Adds items to _in_cart	Uses an item as a parameter	Called to add item to cart
void RemoveItem(Item * to_remove)	Store items are removed from cart	removes items from _in_cart	Uses an item as a parameter	Called to remove item from cart
string DisplayCart()	Items from store cart that were added to shopping cart are displayed	Displays _in_cart	Items string versions in cart are displayed	Called to display shopping cart 004
void ClearCart()	Called from Checkout	clears cart	Items in cart are cleared	none
vector<Item * > get_items()	Used to loop through items	Used to find item	none	none
vector<Item * > in_cart_	Holds store items in in_cart_	Used as item storage of the users shopping cart	Used as item storage of the users shopping cart	none

TEXTUI CLASS:				
METHODS:	Store Interaction:	Shopping Cart Interaction:	Item Interaction:	TextUI Interaction:
TextUI()	none	none	none	constructor for TextUI object
string MainMenu()	none	none	none	Used to display main menu
void RouteChoice(Store s, string choice)	User input effects Store class	User input effects Shopping Cart class	none	Calls functions based on user input
int ItemMenu(Store s, map<int, string> items)	User input effects Store class	User input effects Store class	none	Menu of items
vector<string> main_menu_	none	none	none	Is the main menu that is displayed

ITEM CLASS:				
METHODS:	Store Interaction:	Shopping Cart Interaction:	Item Interaction:	TextUI Interaction:
Item(int id, string type, double cost, int initial_quantity)	none	none	Constructor for item object	none
int get_id()	Item ids are used to for items in Store	Item ids are used to for items in ShoppingCart	Gets item id	none
int get_quantity()	Used to check items availability	Used to check if item is in the cart	Gets item quantity	none
int get_cost()	Each item has a cost. Called in Checkout	Each item has a cost. Called in Checkout	Get item's cost	none
string get_type()	Called in checkout to alter store file	none	Get item's type	none
void IncreaseQuantity(int amount)	Called in RemoveItemFromCart to revert quantity back	Used in AddItem to increase the quantity of an item	Increases Item quantity	none
void DecreaseQuantity(int amount)	Called in AddItemToCart to lower quantity in Store	Used in RemoveItem to decrease the quantity of an item	Decreases Quantity	none
string ToString()	Uses string versions	Uses string versions	Create string versions of items	none
Item* Clone()	Used in AddItemToCart, to clone and add the item to the cart	Used in AddItemToCart, to clone and add the item to the cart	copies and creates a new pointer	none

Question 2:

The Clone() method exists to create new copies of items with a new pointer so they can be added to the cart.