Glossary for developer

Classes and Methods

Product Class

- Constructor: Initializes a new Product object with the given attributes.

  Product::Product(int id, int supplierId, char* brand, char* model, char* price, long prevProductAddress, long nextProductAddress, bool isRemoved);

Operations with product:

- getId() const: Returns the product ID.
- setId(int newId): Sets the product ID.
- getSupplierId() const: Returns the supplier ID.
- setSupplierId(int newSupplierId): Sets the supplier ID.
- getBrand() const: Returns the brand name.
- setBrand(char* newBrand): Sets the brand name.
- getModel() const: Returns the model name.
- setModel(char* newModel): Sets the model name.
- getPrice() const: Returns the price.
- setPrice(char* newPrice): Sets the price.
- getPrevProductAddress() const: Returns the address of the previous product.
- setPrevProductAddress(long newAddress): Sets the address of the previous product.
- getNextProductAddress() const: Returns the address of the next product.
- setNextProductAddress(long newAddress): Sets the address of the next product.
- getState() const: Returns the removal state of the product.
- setState(bool newState): Sets the removal state of the product.
- toString() const: Returns a string representation of the product.
- std::string Product::toString() const;

Supplier Class

- Constructor: Initializes a new Supplier object with the given attributes.

  Supplier::Supplier(int id, char* name, char* location, long firstProductAddress, bool isRemoved);

Operations with a supplier:

- getId() const: Returns the supplier ID.
- setId(int newId): Sets the supplier ID.
- getName() const: Returns the name.
- setName(char* newName): Sets the name.
- getLocation() const: Returns the location.

- setLocation(char* newLocation): Sets the location.
- getFirstProductAddress() const: Returns the address of the first product.
- setFirstProductAddress(long newAddress): Sets the address of the first product.
- getState() const: Returns the removal state of the supplier.
- setState(bool newState): Sets the removal state of the supplier.
- toString() const: Returns a string representation of the supplier.
- std::string Supplier::toString() const;

File Operations

Writing to Files:

- writeProduct(FILE* file, const Product& product): Writes a Product object to a file.
- writeProduct(FILE* file, const Product& product, long address): Writes a Product object to a file at a specific address.
- writeSupplier(FILE* file, const Supplier& supplier): Writes a Supplier object to a file.
- writeSupplier(FILE* file, Supplier supplier, long address): Writes a Supplier object to a file at a specific address.

Reading from Files:

- Product readProduct(FILE* file): Reads a Product object from a file.
- Product readProduct(FILE* file, long address): Reads a Product object from a file at a specific address.
- Supplier readSupplier(FILE* file): Reads a Supplier object from a file.
- Supplier readSupplier(FILE* file, long address): Reads a Supplier object from a file at a specific address.

Utility Functions:

- bool isFileEmpty(FILE* file): Checks if a file is empty.

Queue and QueueNode Structures

QueueNode Structure:

- address: Stores the address of the node in memory. Default value is -1.
- next: Pointer to the next node in the queue. Default value is nullptr.

Queue Structure:

- head: Pointer to the last added element in the queue. Default value is nullptr.
- tail: Pointer to the first added element in the queue. Default value is nullptr.

Methods:

- isEmpty() const: Returns true if the queue is empty, false otherwise.

- push(long address): Adds a new node with the specified address to the queue.
- removeAddress(long address): Removes a node with the specified address from the queue and returns the address.
- pop(): Removes and returns the address of the head node in the queue.

Functions

Reading Input:

- readInt: Reads an integer from the user.
- readString: Reads a string from the user.

Supplier Menu.cpp Functions:

- addSupplierMenu: Adds a new supplier.
- getSupplierMenu: Retrieves and displays a supplier.
- removeSupplierMenu: Removes a supplier.
- updateSupplierMenu: Updates supplier details.
- updateSupplierName: Updates the supplier's name.
- updateSupplierLocation: Updates the supplier's location.
- updateSupplierFields: Updates the specified fields of a supplier.

Product Menu.cpp Functions:

- addProductMenu: Adds a new product.
- getProductMenu: Retrieves and displays a product.
- removeProductMenu: Removes a product.
- updateProductMenu: Updates product details.
- updateProductBrand: Updates the product's brand.
- updateProductModel: Updates the product's model.
- updateProductPrice: Updates the product's price.
- updateProductFields: Updates the specified fields of a product.

Utility Functions:

- countProductsOfSupplierMenu: Counts and displays the number of products for a specific supplier.

Main Function:

- start: Main loop to display the menu and process user inputs.