

## **Vocabulary:**

### **Actors:**

**Buyer, Client** - a user that owns a shopping cart and can buy products. A buyer is a guest or member.

**Founder** - a member which opened a new store. A founder is by default a store owner, and therefore has top priority in the store owners hierarchy.

**Guest** - a user that is not logged in (may not have an account).

**Logged In Member** - user that is logged in to an existing member's account.

**Member** - A user that passed an entrance process to the system.

**Store Manager** - A member that was appointed by the store owner to be a store manager and has management permissions in the said store.

**Store Owner** - A member that has opened a store or was appointed as a store owner by another store owner and has ownership permissions in the said store.

**System Manager, Admin** - a member with system administration permissions.

**User** - a person that uses the system.

### **Accounts & Authentication:**

**Active System** - system is on, connected to the internet, can serve users.

**Authentication Details** - A pair of username and password that follows the authentication details rules.

**Authentication Details Rules** - Constraints regarding the structure, length and permitted characters in the username and password.

**Login** - is done by the unique identifiers that were used in the process, at the end of the process the guest is identified by the system as a member.

**Member's account** - an account for a member of the system, an account suffices all sorts of features that a guest doesn't have, such as: saving a cart content when existing the system.

**Message** - A communication data that is transferred between users or between the system and the users.

**Password** - each member account holds a password that along with the member's username authenticates the member's account. mainly used in the login process.

**Registration** - the process in which a guest could create himself a member account. The process is done by supplying legal authentication details. The process only creates the member account for the guest. In order to be a member in the system the guest must login.

**Username** - each member account holds a name that identifies the member in the system, the name is necessarily unique.

**Appointment agreement** - the list of approving co-owners that is used for the appointment of a new co-owner, which need the approval of all the current co-owners

**Market properties:**

**Active Store** - a store that has at least one store owner. An active store must show its relevant products in the general products search.

**Bag** - describes the products and amounts to buy from a certain store. a bag is contained in a cart of a buyer.

**Buying methods, Purchase options** - set of predefined properties that represents the different options to purchase products of a certain store. different products can have different purchase options, as long as they're allowed by the store's purchase policy. (example: an auction).

**Buying/Purchase Policy** - A contract of a store that defines: who can purchase products of the store, possible purchase options and their rules.

**Cart** - A set of store bags, maximum a single bag for each store. Owned by a buyer and is used to perform its buyings in the market.

**Discount** - a reduction of the price of a product, set of products or the whole cart in the purchase process of a buyer (options for discounts: hidden, shown, conditional).

**Bid** - An offer for purchasing, should be accepted by all the store owners

**Discount Policy** - A contract of a store that defines: who is entitled for a discount, the different types of discounts , and different rules. the contract could refer to products, buyers or both.

**Filter Properties** - set predefined properties by which a buyer can filter the results of a products search (e.g price ranges, product/store ratings, category).

**Market** - the whole stores management system. note that the market isn't responsible for other services that the system provides such as the external services management.

**Purchase** - an attempt of a buyer to buy his cart content. a purchase is composed of the acquisition of each store bag in the buyer's cart. A purchase is done according to the possible purchase and discount policies (of each store respectively), and by availability of the relevant products in the inventory.

**Product** - a merchandise that a certain active store can offer for purchase. A product can hold its own discount policy regardless of the general discount policies that the store holds.

**Product Details** - set of predefined properties to choose from (e.g. size, color).

**Products search** - a search process after a certain product, that searches through all the active store's inventory. The search can be done by different search properties.

**Search Properties** - set predefined properties by which a buyer could search for products in a variety of active stores (e.g product name, category, keywords).

**Store** - An online shop in the system, that contains: products for sale, discounts and buying policies. Each shop has a founder, and possibly several managers and store owners depending on its state(active/inactive).

**Store Bag** - set of products together with product selection of details and selected count.

**Store Information** - name, products in inventory, store founder, store owners, store managers, etc.

**Store Policy** - specifies the permitted buying methods and discounts in a certain store.

### **External services:**

**Deal** - products that a buyer wants to buy and the payment means he provides.

**Delivery** - package and customer details

**External Services** - services which are external to the system, and are being used by the system. These are the payment and supply services.

**Payment Service** - an external payment charge system that offers the services of executing a payment transaction between buyers and stores.

**Supply Service** - an external stock delivery system, that offers the services of package shipment between stores and buyers.

**Valid Deal** - a deal in which the payment means of the buyer are valid, in-date and contain enough funds to pay for the chosen products, Only valid deals can be approved by a payment system.

**Valid Delivery** - a delivery in which the package's details match the customer's address details. Only valid deliveries can be approved by a supply system.

### **System architecture:**

**AdminManager** - a class responsible for holding and authenticating the admins of the system, and performing admin actions.

**Communication** - the architecture layer that is responsible for using the service and communicating with the clients.

**Hierarchy** - a general object that represents an hierarchical structure over a set of objects. Used in the system to save and use the appointments hierarchy of store owners and managers.

**Permission** - a set of options, where each option represents a certain permit that a member could have in a certain store.

**Purchase** - the process of a certain buyer buying products.

**Purchase History** - the saved history of purchases in the system, saved for every store and member (maybe for members only in the future).

**PurchasesManager** - a class responsible for managing purchases.

**Response<T>** - a class which is always the return value of the service layer. The service layer returns such an object, configured either to contain an error message on the action performed, or to contain the data to be returned if the action succeeds.

**Role** - a set of options, where each option represents a certain character that a member could have. In some cases, performing as a certain role could derive some specific permissions with it.

**Storage** - represents the space in which the persistent data is saved in the architecture diagram.

**Store Management** - the set of actions to manage a store in the system, used mainly by store owners and managers.

**SystemOperater** - a class that is responsible for opening the market system, according to **Use Case I.1 - Market activation** , creating all the facades and controllers.

**System Controller** - a class responsible for managing the external services and the connection with them, by managing interfaces that provide the domain access to them.

**Store Owner/Manager appointment** - Making a member an owner or manager of a certain store.

**ServiceDTO** - an object in the service layer that holds data and has no additional functionality, that is used to return complex data from the service layer to its clients.

### **Rules Of Integrity:**

1. System can charge money from buyers for purchases they made, and only the amount agreed.
2. The purchase process ends successfully when payment is done and supply is approved.
3. A seller can get payment after a successful purchase process.