

Development of Technical Specifications for the Mechanism of the Trading System

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Abstract: : The article described the Unified National Marketplace will be the only mechanism for the sale of domestically produced goods throughout the world through online access, and organizing online receipt of multicurrency payments, thus facilitating the costs associated with organizing trade in goods locally and abroad. One of the main points is the organization of receiving multi-currency payment and simplifying the difficulties associated with the export of products manufactured in the Republic of Uzbekistan, will also allow businesses and individuals to provide their goods to personal stores. There are several types of electronic trading platforms - for commercial customers, for placing government orders. The sites on which electronic transactions are performed by commercial customers are divided into specialized and multi-profile. Users, participants of the sites, held auctions and trades themselves can decide on which of the sites it is more convenient and profitable to work with. In addition, on a multiprofile resource the customer can act as a supplier, the seller - this is dependent on the scope of his activities, on the possibilities.

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I. Introduction

The definition of the main functions of the system is an important step in the preparation of project documentation. Functional requirements indicate what the system should do. Functions can be of several types: hidden and obvious. The evidence of a function is determined by the obviousness of the performance of this function by the system from the user's point of view. Diagram 3 shows an example of the function description.

An association is a relationship between classes, reflecting some significant and useful connections between them. An association is indicated by a line drawn between the classes, with which a specific name is associated, starting with a capital letter.

An additional arrow next to the name of the association indicates in which direction to read its name. If there is no such arrow, the names of the associations should be read using generally accepted agreements, namely, from left to right and from top to bottom.

Each end of the association is called a role. The role may additionally have the following characteristics: multiplicity, name and direction of communication, scheme 2.

Functionality and efficiency of the information system is one of the main requirements in the qualification work being developed.

II. Material and methods

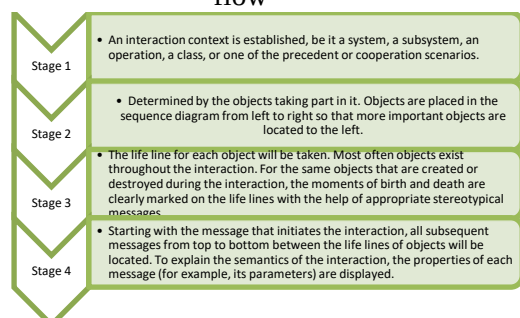
Functionality implies the fulfillment of the

main function of developing video lessons, in this case, this requirement refers to accessibility to perception and compliance with the rules for the distribution of topics by content. A domain model is a visual representation of conceptual classes or objects of the real world in terms of the domain. Such models are also called conceptual models.

Modeling the temporal ordering of the control flow is as follows, Scheme 4.

The projected electronic trading platform will allow individual modeling of business processes, possessing qualities that ensure its leading position in the market of procurement management systems: self-sustaining information system; flexibility and high speed of adaptation to changes in legislation; cross-platform integration; storing the main body of data and performing key calculations in the "cloud" (IT solution infrastructure); high readiness for operational expansion, development and connection of additional modules; conducting procurement procedures in accordance with the legislation of the Republic of Uzbekistan; automatic posting of information on ongoing procurement procedures on the website of the Chamber of Commerce of Uzbekistan; Intelligent, customizable monitoring, analytics and reporting.

Scheme 1. Modeling the temporal ordering of control flow



A sequence diagram is one of the interaction diagrams. The sequence diagram illustrates events initiated by the system by artists, Figure 1.

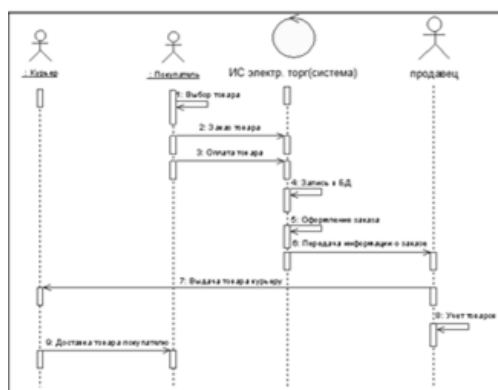


Fig.1. Online order use case diagram.

Thus, this article defines the processes, describes the cases, shows the diagrams of cases, describes the typical course of events, describes the conceptual model, describes the functions of the system, shows the sequence diagram and interaction of actors with the system.

III. DISCUSSION

Online sales are part of e-commerce. All trading systems via the Internet can be classified as web showcases, online stores, online trading systems, electronic trading platforms. An electronic marketplace is a combination of a catalog, navigation system and ordering (with subsequent transfer to the manager for further processing), i.e. With the help of electronic trading platform organized trade on order. Online stores and electronic trading platforms can carry out a full sales cycle online, but electronic trading platforms are additionally fully integrated into the company's internal document management system [1].

The transition from the simplest sales systems via the Internet to full-featured online stores and electronic trading platforms is connected with the need to solve the fundamental problem of integrating an online store and existing Internet payment systems. The module of automated payment acceptance for goods is a distinctive feature of a modern electronic trading platform.

Imagine the concept of information flow in the operation of an electronic trading platform with physical delivery of goods associated with the service and registration of incoming orders. Consider the general algorithm for the work of order managers, which in fact does not depend on the form in which information data is collected and processed. The block diagram of the algorithm is shown in Figure 2 [2].

For clarity, we present a customer service scheme in an electronic trading platform with physical delivery of goods in IDEF0 notifications. An important role in organizing sales through an electronic trading platform is played by the ability to accept payments from customers for selected sets of goods in real time using modern Internet payment -systems The payment system on the Internet is a system for conducting settlements between financial, commercial organizations and users in the process of buying / selling goods and services via the Internet. It is the payment system that allows you to turn an order processing service or an electronic storefront into a

full-fledged store with all the standard attributes: by choosing a product or service on the seller's website, the buyer can make a payment without leaving the computer.

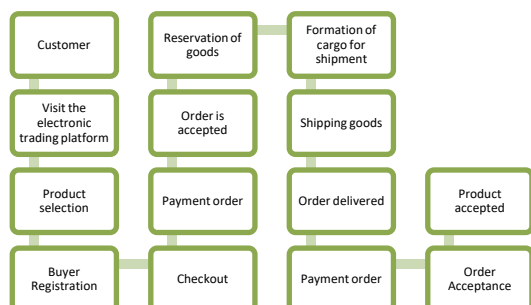


Fig. 2. The scheme of customer interaction with the online store sales system

One of the most modern principles of organizing an electronic trading platform is the use of so-called electronic money for organizing settlements. Electronic money fully simulates real money. At the same time, the issuing organization - the issuer - releases their electronic counterparts, which are called differently in different systems. Further, they are bought by users who pay for their purchases with their help, and then the seller repays them from the issuer. During issue, each currency unit is certified by an electronic signature, which is verified by the issuing structure before redemption. The main difference between e-money and real money is that the former provide, in fact, e-money obligations of the issuer, but cannot be real money from a legal point of view. The term "money", which is used, shows that electronic money largely inherits the properties of real cash, the most important of which is anonymity, that is, they do not indicate who used it. Some systems, by analogy, allow the buyer to receive electronic cash so that it is impossible to determine the relationship between it and money. This is done using the blind signature method. It is worth noting that with the use of electronic money there is no need for authentication, since the system is based on putting money into circulation [3].

The scheme of payments using electronic money includes the following steps:

1. The buyer exchanges real money for electronic money in advance.
2. The buyer transfers the electronic money to the seller's server for the purchase.
3. Money is presented to the issuer, who verifies their authenticity.
4. In the case of authenticity of electronic bills, the seller's account is increased by the amount of the purchase, and the buyer's account is reduced by the

same amount and the goods are shipped or a service is provided.

Electronic cash can not only provide the necessary level of confidentiality and anonymity, but do not require contact with the center to confirm payment. In this regard, the transaction cost is reduced to a minimum, and such systems can be effectively used to provide micropayments - payments of less than \$ 1, where traditional credit card-based systems are economically unprofitable. According to general opinion, it is micropayments that are able to provide the main sales turnover of information on the Internet [4].

Emit electronic cash can both banks and non-bank organizations. In Uzbekistan, the most popular electronic money system, providing up to 70% of payments in the electronic commerce system, is the WebMoney system.

WebMoney allows many different merchants to operate simultaneously in one electronic payment system, interacting on the basis of universal monetary units accepted by any of these merchants. In addition to sellers, there are ordinary users in the system. Users can be legal entities and individuals or software products representing them, for example, online stores. From the point of view of the seller, all users of the system are fully equal.

In the WebMoney system, it is in principle impossible to accidentally or deliberately deceive any member of the payment system by the seller or other participant due to the fact that each operation is necessarily accompanied by electronic digital signatures of all its participants. Special software - "Wallet" - actually stores (along with electronic money itself) purchase and sale agreements signed by electronic digital signatures of participants in the operation. The funds of the user (the buyer or the seller) can be on the account in the bank of WebMoney system or directly on the user's computer in the "Wallet". The WebMoney system account can only be managed via the Internet using the "Wallet" with which it was opened - the bank itself cannot manage this account. The owner of the "Wallet" is subject to full responsibility for its safety as a means of managing the account and making transactions using electronic money. Bank interest may accrue on the funds in the account, for example, as deposit accounts [4].

Electronic money directly in the WebMoney system appears at the time of transferring money from the system account to the payment book in the user's

Wallet. The use of the blind signature procedure allows the users of the payment system to receive electronic money obligations that cannot be recognized by the bank.

A special procedure allows you to use these liabilities in parts as needed. The client can repeatedly replenish the payment book in the bank and make payments for any amount within the funds on it without worrying about the need for their exchange. Any changes in the status of the payment book are made only at the initiative of the owner and must be confirmed by the bank. Unconfirmed changes by the bank after a certain time or at the initiative of the user are canceled, and the previous amount is restored on the payment book.

It should be noted that any operation in the WebMoney system is necessarily confirmed by electronic digital signatures of its participants. In addition to the electronic money itself, the "Wallet" transfers information on the basis of which one or another operation is performed.

Let us consider in more detail how the participants of the system interact with each other, as well as with the system itself [4]:

1. The buyer transfers the money to the bank of the system, installs the electronic "Wallet" software on his computer and receives digital certificates issued by the bank.

2. The buyer selects the product in the electronic store and sends him the order.

3. The seller's "wallet" sends the buyer's "wallet" a payment request containing the contract text signed with an electronic signature.

4. The "purse" of the buyer presents the text of the contract to its owner. If the buyer agrees to pay (with enough money from him), the buyer's "Wallet" sends electronic money to the seller's "Wallet" and an agreement signed by the buyer's digital signature.

5. The bank, having received electronic money from it, conducts their authorization.

6. In case of a positive result of authorization, the bank transfers the corresponding amount of money to the merchant's account in the WebMoney system. This message is transmitted to the seller's "wallet" along with an electronic check for the buyer.

7. After receiving a response from the bank, Wallet sends the authorization data to the store and a message about the successful transfer of money to the seller's account. The electronic check from the bank is sent to the "wallet" of the buyer.

When making a purchase transaction using the WebMoney system, together with electronic money, the purchase and sale agreement between the parties to the transaction is also transmitted. In the process of payment, this agreement is automatically signed by electronic digital signatures of the owners of the "Wallets", who receive and transfer money according to this agreement. Thus, the buyer in the "Wallet" remains a copy of the electronic document confirming the seller's commodity obligations, with his electronic digital signature.

IV. Result and Analysis

In the course of the studied foreign experience in organizing electronic trading platforms, the requirements for trading platforms were identified. The functionality of an electronic trading platform with the integration of international payment systems will be based on the following functions: As a result of the study, a project implementation mechanism was developed and seven principles were formulated: 1. Orientation to the presentation of domestic products in the international market; 2. A single information and trading space on the trading platform for all its participants through the Internet - access; 3. Organization of the possibility of representing individual stores on the site; 4. Introduction of an internal payment system and currency for participants in the trading floor; 5. Internal arbitration to resolve disputes between the seller and the buyer; 6. Organization of logistics worldwide; 7. Providing protection to the buyer with the installation of holding the buyer's transactions to the seller.

V. Conclusion

The statuses of the participants of the trading platform are as follows: Awarding user status such as seller, buyer, moderators and arbitration. As part of the implementation of the applied research, the status of participants of the trading platform will be determined, such as:

Seller - a legal or natural person engaged in trading activities.
Buyer - a legal or natural person engaged in the activities of the buyer.
Moderators - representatives of the administration of the trading platform responsible for the safety and fulfillment of requirements for participants.
Arbitrage - these are representatives of the trading - platform, whose mission is to research and resolve disputes or conflicts arising between participants in the sale.

Shops on the trading floor:

The development and implementation of the National Electronic Trading Platform with the integration of international payment systems will allow legal entities and individuals to present their goods in personal stores.

Each store will be required to provide documents or information about the proposed product and information about the origin in accordance with the standards that are provided by law.

Each product displayed on the trading platform must have a detailed description and a photo, and will also be digitized and have a bar code. Each product sold on a mandatory basis in the descriptions of the goods must have a clear time for delivery of the goods to the buyer.

Each store will have a unique name on the marketplace, and a unique rating will be maintained that includes both the number of sales and negative reviews, if any. One of the most key moments is opening an account in our trading platform by means of which all financial activity will be conducted. Study of the mechanism of the internal payment system and currency for the participants of the trading floor:

The definition of the internal payment system will provide maximum convenience for customers that will include the most developed payment systems in the world as well as local ones. The sale of goods will be made in all international currencies for which currency accounts will be opened and contracts concluded with foreign banks.

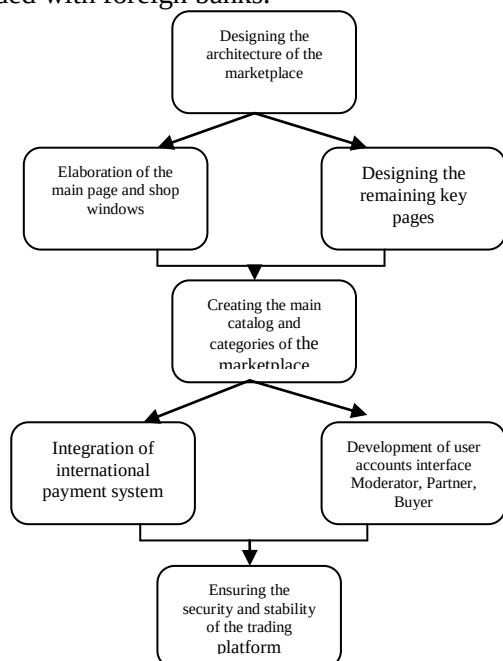


Fig.3. The mechanism for the implementation of the trading platform

The implementation of the National Electronic Trading Platform provides for the organization of international delivery through integration with postal and courier services. Delivery of goods worldwide will be guaranteed due to the mandatory conditions for all suppliers of the participants of the site.

To simplify monitoring and tracking the progress of delivery, a module will be implemented to track mail items by track number of the parcel being awarded when registering mail items.

Securing the buyer with the installation of holding the buyer's transactions to the seller.

The developed trading platform will conduct all calculations made on its space exclusively in its payment system. Thus, to organize the protection of the buyer from unscrupulous sellers and the avoidance of action by fraudsters.

Financial funds from each purchase will be credited to the account of the trading platform and will be frozen until the buyer confirms receipt of the goods. After confirmation of receipt of the goods for the purchase will be transferred to the seller.

The sale of goods on the developed trading platform will allow us to re-represent domestic producers and attract both retail and wholesale consumers from around the world.

The main feature will be the organization of safe transactions on the trading floor and the guaranteed fulfillment of all obligations of both the buyer and the supplier, figure 3.

Internal arbitration to resolve contentious issues between the seller and the buyer. Internal arbitration will conduct activities aimed at resolving disputes between sellers and buyers. Description of cases when arbitrazhniki are connected to the resolution of disputes.

If the goods are not delivered as in the description and in the photos that were exhibited in the heading or.

Delivered in not working condition.

Delivered defective.

Delivered not on time specified by the seller in the product description.

When providing information to the buyer of evidence of the above violations, the arbitration may decide to fully or partially reimburse the buyer.

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