

## **IT INNOVATION METHODS AND PROGRAMMING LANGUAGE**

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### **ABSTRACT**

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.

**Key words:** specific name, next to the name of the association, agreements, namely

### **INTRODUCTION**

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.

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.

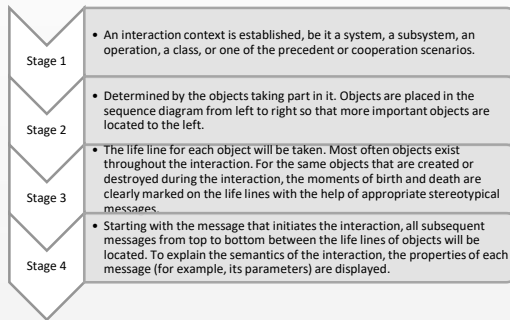
### PROPOSED METHODOLOGY

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].

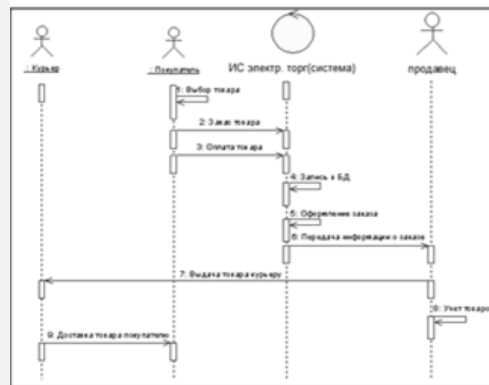
The transition from the simplest sales systems via the Internet to full-featured online stores and electronic trading platforms is connected with the need to solve the fundamental problem of integrating an online store and existing Internet payment systems. The module of automated payment acceptance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

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.

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.

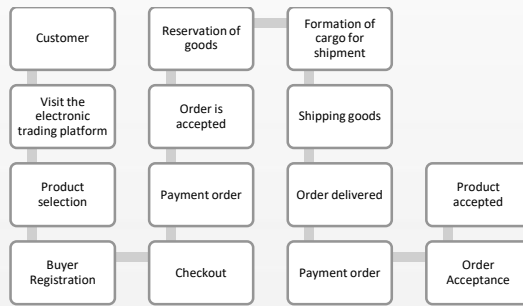


Fig. 2. The scheme of customer interaction with the online store sales system

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.

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.

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.

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