Advantages and Improvements of E-Textbook Teaching of Computer Science in General Secondary Educatin

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Abstract:

According to the concept of development of public education until 2030: transfer of existing textbooks and teaching aids to electronic form; increase the level of computerization in the educational process, taking into account modern trends in the development of information and communication technologies; special attention is paid to the development of multimedia products in education and the systematic organization of the process of their use.

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Introduction

The large-scale reforms carried out in our country during the years of independence have become an important basis for strengthening national statehood and sovereignty, ensuring security and law and order, the rule of law, human rights and freedoms, interethnic harmony and religious tolerance. It has created the necessary conditions for our people to live a decent life, receive world-class education and a profession, and realize the creative potential of our citizens.

In a video conference about implementing five important initiatives of increasing interest in culture, art, sports, information technologies and reading books held under the leadership of Shavkat Mirziyoev on March 19, 2019, it has been planned to establish "Digital Technology Training Centers" in all cities and districts of the country. On November 21, 2019, a project called "One Million Uzbek Programmers" was launched at Inha University in Tashkent. Successful implementation of the above tasks set by President Shavkat Mirziyoev requires the creation of a database of modern textbooks. This, in turn, increases the need for Uzbek-language textbooks for young programmers who want to create web pages. Despite the fact that the training of computer programmers in our country is organized at the level of modern requirements, and a lot of work is being done in this direction, a number of problems remain unresolved. In particular, creating pedagogical conditions in line with international standards, which will allow to train well-educated and qualified Web programmers; organizing the process above in methodologically correct way; the development of professional knowledge and skills in the teaching of web programming languages, the creation of e-textbooks that take into account the abilities, intellectual characteristics and level of knowledge of the student can be included.

The use of web technologies, as well as the problems of teaching methods, are not sufficiently studied.

The main part

The state of development of ICT depends primarily on the intellectual potential of society, including the development of education. The content and quality of education are considered a priority in society.In the developed and developing countries of the world, special attention is paid to the informatization of education, ways to develop education and increase its effectiveness are being sought. The use of Internet technologies, computer technologies, telecommunication technologies, and mobile technologies in education is becoming an important part of the open education system. Deploying and publishing web systems on Internet servers is a multifaceted, professional, and intellectual endeavor that requires a high and in-depth knowledge of the basics of web technology and design. And these problems can only be solved when there are enough experts in modern Web technologies. The study of web technologies is also being studied in the CIS countries, including MM Nimatulayev's "Preparation for the use of web technologies" in the professional activities of computer science teachers in pedagogical educational institutions [5]. The role of the educator in teaching web technology should not be to give commands and instructions, but to open up a wide range of possibilities for learners to choose from. The choice is entirely up to the student [6]. The main purpose of teaching Web programming in school is to provide students with theoretical and scientific knowledge on the concepts of Web technologies, information processing using Web technology, methods of designing Web systems and development technology.

Its mission is to develop students' knowledge, skills and competencies in modern methods of creating Web systems, designing and creating Web systems, and working on Web systems.

As a result of mastering the science of web programming, students must be able to: analyze the basics of the Internet, the most common and popular Web systems; use them; choose the right programming language for creating web systems; use programming languages effectively [4].
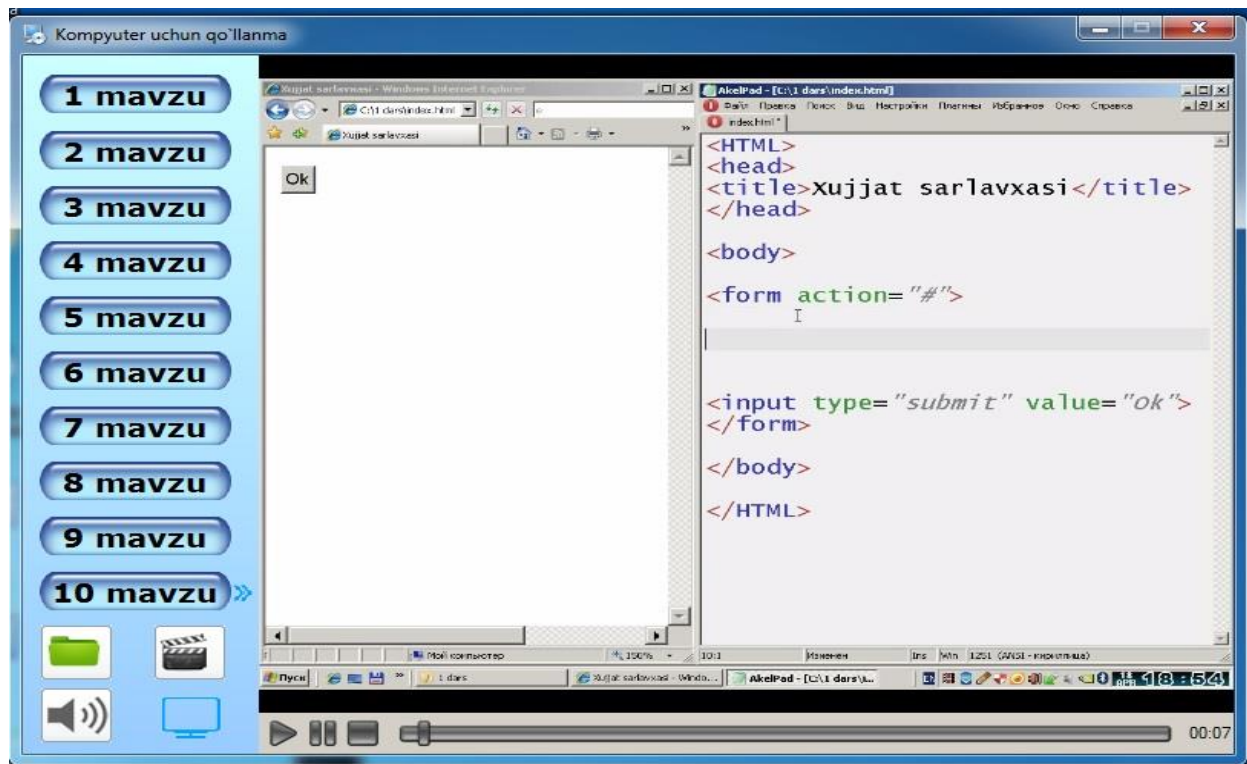
The development of web programming languages not only creates new and useful opportunities for both programmers and users, but also allows them to perform tasks such as reducing the time spent on creating Web systems, further improving their security.

Web programming languages are mainly defined languages for working with Web technologies.

The most widely used Web programming languages are HTML, Java Script, VBScript, ActionScript, and Java.

E-textbook is a set of information that makes existing educational sources compact with the help of special programming tools in order to make them more user-friendly. It is important that the information provided in the preparation of the e-textbook is user-friendly, interesting and useful. There are several different ways to prepare e-textbooks today. In most cases, e-textbook information is first converted to HTML pages. An e-textbook can also be created using HTML. The potential of this field has now expanded. Special software has been developed that allows you to create and decorate HTML pages. Examples of such programs are Microsoft FrontPage, Dreamweaver. It is possible to easily prepare and edit electronic textbooks using these software tools. However, the data is stored in the form of html or htm extension, and if there is a lot of information in the electronic textbook, it requires a lot of time copy it to and from a computer device (flash drive). This, as a result, can cause an unpleasant situation. To avoid this, special software tools have been developed that can easily convert existing HTML textbooks into exe or chm files. Such e-textbooks are preferred over e-textbooks, which consist of a simple set of HTML data, due to their ease of use and the absence of the above shortcomings. The advantage of this e-textbook is that its size is smaller than the size of an e-textbook consisting of a simple HTML document folder. These e-textbooks are easy and time consuming to download. All interconnected HTML data is converted to a single exe or chm file. SbookBuilder and html.chm have a special place among such e-textbook development programs. In the education system, all fundamental knowledge is obtained mainly through traditional printed textbooks, audio versions, and video developments. The e-textbook is designed to broaden students' horizons, develop and

deepen their initial knowledge, supplement it with new additional information, and is created on a basis of voluntary subjects. The electronic textbook can be a publication on the basis of the state educational standard, publications on specific sections of disciplines in specialties and directions, a sample and working curriculum, as well as video developments on a set of exercises and topics, various schemes. , atlases, guidelines, tests and other information on experimental work [1-2]. All official e-textbook materials must first meet current standards. The content of the e-textbook is neutral to the software environment in which it is presented, and the placement of the material, narration, and reliance on specific concepts are at the discretion of the author of the textbook [3]. In addition to the theoretical knowledge of teaching web programming in the e-textbook, the student will have the opportunity to watch and practice practical videos of tasks.

The use of e-textbooks by the teacher in the learning process develops the following competencies in students:

Competence is the ability to apply theoretical knowledge, practical skills and abilities in science to solve practical and theoretical problems encountered in everyday life. Competence - (Latin: competens - capability), in addition to pure professional knowledge, skills and competencies, competencies include initiative, collaboration, teamwork, communication skills, realistic assessment, logical thinking, information sorting and use. Competency-based learning is the ability of students to apply the knowledge, skills and competencies they have acquired in their personal, professional and social activities.

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