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TEACHING STUDENTS (STUDENTS) PROGRAMMING LANGUAGE USING HIGH LEVEL MODERN PROGRAMMING LANGUAGE PYTHON

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Abstract
Features of Python programming language, one of the high-level programming languages, are discussed.

Keywords: programming, technology, technique, information, Python, Java, C++

Currently, as a result of the rapid development of science and technology, the creation of algorithms and software for the creation of algorithms and software for various complex processes, from a mathematical point of view, is considered one of the most urgent problems not only from a theoretical point of view, but also from a practical point of view. The science consists of theoretical and practical parts, which includes the main concepts of computer science, algorithms, programming basics, operating systems, office programs, special programs for solving mathematical problems, local and global computer networks, as well as interactive services.

The aim of the subject is to give students knowledge about theoretical and practical software systems of informatics, work skills and to teach them to create a computer program that solves the given problem. This is to provide a general understanding of programming languages. Teaching the use of the programming language and building the mathematical model of the given problems from the specialized subjects, building an algorithm for solving the problem sequentially, and forming the skills to create a program based on them.

Today, object-oriented programming technologies are considered the most developed direction in the field of programming. Currently, subjects related to the use of informatics or information communication technologies are being taught at all levels of the educational system. Procedural, modular and structured programming methods have been used in the teaching of programming modules of the above subjects, but as a result of the development of information and communication technologies and programming technologies, the previous methods and tools do not meet today's requirements.

Today, with the development of technology, we see the emergence of demands and proposals for it. To solve the above problems, it is appropriate to use new types of methods, optimal algorithms, modern programming technologies and high-level

programming languages. Several high-level object-oriented programming languages have been developed. Especially nowadays Python, Java, C++, PHP, JavaScript, Ruby, Perl, Delphi and other programming languages are widely used.

From the outside, programming seems like a very complicated and difficult science. But in reality, it is not so, you can master and learn programming even without separating it from your main work and studies at school and university.

The most important things to learn programming are desire, desire and curiosity. It is not wrong to say that a person who has a strong knowledge of programming is a real independent person in today's information age.

Today, programmers use more than ten programming languages. In recent years, Python has become one of the most used programming languages. In terms of scope and coverage, this language occupies the largest part of the information field. It is possible to write programs for almost all techniques and systems in this language.

The Python programming language is a universal language. With its help, you can create and produce everything from web applications to mobile, computer and additional electronic devices and devices.

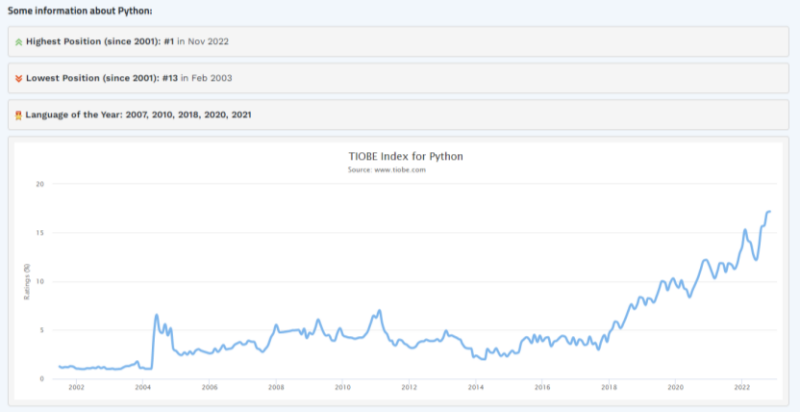
A Python programmer is the most sought-after professional in the world today. Most software and IT projects around the world are written and run in Python. The demand for these programmers is increasing day by day. The reason is simple, the development of the information sector, the informatization of almost all areas has risen to the level of state policy, it has become a requirement of the times. There is a shortage of specialists.

At the end of 1989, Guido Van Rossum created Python - a new interpretive programming language that quickly became popular and in demand among programmers. In support of this, large companies using Python to implement Global projects can come. This is Google, Microsoft, Facebook, Yandex... the list is huge. The scope of Python is very broad. It is used to create various tasks. They are automation, life management systems, games, various applications, scripts for web resources, etc. Python has been used effectively and dynamically developed throughout its life. Standard libraries have been created to support modern technologies, such as databases, Internet protocols, e-mail, etc.

Python, like any other programming language, has its own characteristics. Thus, the following can be distinguished:

• Cross-platform. Python is an interpreted language, with interpreters available for many platforms. Therefore, there should be no problem running it on any operating system.

• Many services, development environments and frameworks are available with Python. Finding the right product for the job is easy.
• It allows to increase efficiency, increase efficiency.
• Access to various sources of information about Python. It is not difficult to find an answer to any question, so there are many free literature, video guides, ready-made resources and templates for working in public spaces.



www.tiobe.com/tiobe-index/python - Information about the Python programming language

Let's look at a program that prints the text "Hello World" in the most popular programming languages today:

In the Java program example:

```
public class Example
{
 public static void main(String[ ] args)
{
 System.out.println("Hello World!");
 }
}
```

In an example C++ program:

```
#include <iostream>
 int main() {
 std::cout << "Hello World!";
 return 0;
}
```

In an example Python program:

```
print "Hello World!"
```

The code written in Python is as simple as possible, even a person without a technical background can immediately understand it. Of course, not all programs look so simple

- complex projects consist of hundreds and thousands of lines of code. But Python is an easier programming language to understand than many others.
Behind Python there is a large community that continuously develops this language. Currently, Python is used in financial technology, data warehouse,
is widely used in computer science. As a result, giants such as Google, Yandex and Dropbox support this technology and create large projects with its help.

REFERENCES

1. Сысоева М.В., Сысоев И.В. Программирование для “Нормальных” с нуля на языке Python: Учебник. Москва Издательство “МАКС Пресс” 2018 г.
2. Федоров, Д. Ю. Программирование на языке высокого уровня Python: Учебник. Москва Издательство «Юрайт» 2019 г.