

3. Макаровська Т. П. Економіка підприємства. Навч. посіб. для студ. вищ. навч. закл. К.: МАУП, 2006.

GO AS A CROSSPLATFORM PROGRAMMING LANGUAGE

**Andrushchenko M. O., student,
Arkhylova V. O., Senior Lecturer,
Kharkiv National University of Radio Electronics**

GO is a relatively new programming language developed by Google Corporation. It is often called “Golang” which is an abbreviation for “Google Language”. Ken Thompson and Rob Pike were the key figures who participated in the creation of GO as an attempt to take the best sides of languages such as C++ and Java. On November 10, 2009, the language was announced and in March 2012 the version 1.0 was released. But language improvement is still in progress.

GO was developed as a programming language to create high quality efficient programs run on modern distributed systems and multi-core processors. It can be considered as a way to substitute C and C++ languages taking into account current advances in ICT and the experience gained in the development of large systems. According to Rob Pike: GO was designed to solve real-life problems that arise in the course of developing software on Google [4].

Slow programs assembly, application of different subsets of language by programmers, difficulty in understanding programs caused by poorly read code, projects duplication, high cost of updates and complexity of tools development are considered the main problems.

GO was developed with the view that programs are translated into an object code and executed directly without requiring a virtual machine, so one of the criteria for choosing architectural solutions was the ability to provide rapid compilation into an effective object code and the absence of excessive requirements as to dynamic support [6].

Golang represents a compiled statically typed programming language designed to create various programs, mostly web services and client-server applications. It provides an opportunity work with other technologies such as Docker, InfluxDB and Kubernetes. In fact, the application of GO language encompasses three main areas: network software, console utilities and back-end [1].

Some of the distinctive features of the GO language are the original system of types: there is no inheritance in the language (one of the principles of OOP) [2], maintaining multitasking and parallel programming as well as reduced syntax of variables and syntax of anonymous functions.

GO evolves as an Open Source, that is, represents a project with an open source code, and all its codes and a compiler can be found at the official site [5] and used for free.

In order to work with GO it is necessary to use a text editor for code entering and a compiler for converting a code into a file. It is also possible to apply special Integrated Development Environments (IDEs) that support GO, such as GoLand from

JetBrains. There are GO plugins for others IDEs, including IntelliJ Idea and NetBeans.

GO is a cross platform programming language that allows creating programs for various operating systems such as Windows, Mac OS, Linux, FreeBSD. The code is portable: programs written for one of the above mentioned operating systems can be easily recompiled and transferred to the other OS.

At present time quite a number of successful projects use this language, namely, Google, Dropbox, Netflix, Twitch, Uber, Cloudflare. GO language specialists are in demand at the Ukrainian IT market today, that makes a good incentive to learn this language.

References

1. Bui-Palsulich T. Using Go Modules [Электронный ресурс] / Т. Bui-Palsulich, Е. Compton – Режим доступ к ресурсу: <https://blog.golang.org/using-go-modules>.
2. Kemal Y. The SOLID Principles of Object-Oriented Programming Explained in Plain English [Электронный ресурс] / Yigit Kemal – Режим доступ к ресурсу: <https://www.freecodecamp.org/news/solid-principles-explained-in-plainenglish/>
3. <https://docs.microsoft.com/en-us/cpp/error-messages/compiler-errors-2/compiler-errorc3016?view=vs-2019>
4. https://en.wikipedia.org/wiki/Rob_Pike
5. <https://golang.org>
6. https://www.ibm.com/developerworks/ru/library/l-go_01/index.html

CERTIFICATION

Bobrov Il. O., student,

Voronova Ye. M., Associate Professor,

Kharkiv National Automobile and Highway University.

Certification is a form of confirmation of objects compliance with established requirements, carried out by a certification body. The overall goal of certification is to give confidence to all interested parties producing, processing and giving services, meeting specified requirements. As a result of certification, it is expected to obtain a certificate of conformity, which is not a guaranteed result: the certification body is authorized to refuse both certification and the issuance of a certificate of conformity in a number of cases [1].

The objects of certification are different, the determining factor is the nature of certification:

- products;
- processes;
- work;
- objects

Requirements for objects of certification, compliance with which is assessed during their certification, are established by various sources:

- technical regulations;