

# IMPORTANCE OF DEVELOPING AUTOMATED INFORMATION SYSTEMS AND MOBILE APPLICATIONS

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## Abstract

This article examines the practical importance of speed reading programs. The need for these software applications today has been examined, and among them, it has been determined which areas are most in need of speed learning programs. Among the speed reading programs, software applications adapted for remote language learning are currently more active. Such software applications are many and varied, and differ from each other in terms of language learning time, ease of use, and the number of languages they cover. Among them, Duolingo, a software application created for language learning, was reviewed in more detail and its achievements and shortcomings were explained.

**Keywords.** Mobile build, Duolingo, speed reading, language learning, interactive lessons, gamification, Artificial Intelligence, Personalized learning, mobile app, free language learning, language learning technologies, fun learning, user experience, social competitions, online education, information systems.

## Introduction

Nowadays, with the development and globalization of information technologies, it is becoming more and more convenient to study at a distance or to master certain subjects independently. This saves the user's time and money. In order to acquire knowledge in this way, users lack only literature or Internet resources. For this, there is a high need for software applications perfected in a certain field, containing a number of literatures and several years of work experience.

Today, almost everyone uses smartphones, so if these software applications are adapted for mobile devices, the process will be easier to master and more popular. It follows from this that there is a great need to develop fast reading programs for mobile devices.

Creating a quick learning application for mobile devices provides quick and convenient access to educational materials at major fairs around the world. Developing a software application for mobile devices is necessarily adapted to a specific mobile operating system. Mobile operating systems are systems designed to manage mobile devices (smartphones, tablets, PDAs and other mobile devices). Mobile operating systems consist of two main platforms: a user-facing



software platform and a lower-level real-time operating system for device management. Mobile operating systems mainly appeared in 1979 and used (distributed system) systems to manage processes.

The importance of an automated information system is reflected in its life cycle. The essence of creating and developing an automated information system reflects an economic category such as "life cycle". That is, it means the life cycle between its creation and the end of its use.

When creating an automated information system, the following functions should be provided.

- **Technical support.** Technical support is a complex of technical tools intended for the work of the information system, as well as documents related to these tools and technological processes.

- **Mathematical supply.** Mathematical support is a set of information processing algorithms, models, and mathematical methods used to solve tasks in the information system.

- **Software means** a set of programs for the implementation of the goals and tasks of the information system, as well as a set of technical tools that work in accordance with the norm.

As there is a high need for the development of rapid reading programs for mobile devices, it is worth paying special attention to the need to develop rapid reading programs adapted to the field. So, whether there is a strong demand for creating a software application, there is a clear need for applications that teach how to create programs for mobile devices, or to enter any field, it is necessary to review the literature created in different languages in this field. For this, it is necessary to learn several of the most globalized languages. Or at least to go on a trip to a foreign country, communicating with a foreign citizen at work can increase the demand for language learning. So, from the above considerations, the question of creating a language-teaching rapid learning program arises, specifically for mobile devices. Today, due to the process of globalization, learning new languages has become not only useful, but also necessary. Advances in language learning technology have made this process much easier and more fun. Duolingo, as one of the leading platforms in this field, offers users the opportunity to learn the language in an efficient and interactive way through a rapid learning program. Duolingo's popular free platform provides users with an engaging and effective learning experience with game elements, artificial intelligence, and personalized lessons. The article explains how the program's interactive lessons facilitate and encourage language learning through balanced content and social elements. The success rate of Duolingo users also mentions the program's portability and ease of use, as well as its free availability. Duolingo's speed reading program is described as a convenient, fun and effective tool for those who want to learn a new language. In this article, we will provide detailed information about the Duolingo speed reading program.

The idea of Duolingo was proposed at the end of 2009 in Pittsburgh (Pennsylvania, USA) by Carnegie Mellon University professor Louis von Ahn and his student Severin Hacker. Von Ahn sold his second company, reCAPTCHA, to Google and worked with Hacker to build an education-related service. That's because Von Ahn grew up in Guatemala, motivated by how expensive it is for people in his community to learn English. Swiss-born Hacker (founder and current CTO of Duolingo) believed that "free education really does change the world" and wanted to empower people to do the same.



In the Java programming language, generalizations provide great opportunities. Using public methods with public classes allows you to create many kinds of types in programming. We can write a single generic method that can be called with different arguments[1].

An additional foreign language learning website and mobile app, users learn using 'grids' tailored to their target language, with specific 'skills' to practice vocabulary, grammar and pronunciation through spaced repetition. Skills exercises may include writing translation, reading comprehension, speaking comprehension and short story exercises. As of June 2021, Duolingo offers 103 different language courses in 40 languages (although Uzbek is not yet available). The Duolingo platform has over 500 million registered users. Duolingo lets you learn more than 30 languages, including Spanish, French, German, Italian, Japanese, Korean, Russian, Arabic, Chinese, and more. Each course involves step-by-step learning. Lessons are divided into topics such as basic vocabulary, grammar, expressions and practice exercises.

The Duolingo English Test (DET) is a standardized test for speakers of English as a foreign language. DET was developed by the educational technology company Duolingo and launched to the public in 2016. The test has been adopted by many universities and institutions and is used as a criterion for English proficiency. Ireland also accepts the test as part of its student visa program. The DET is an online, adaptive test.

Key features of Duolingo's speed reading app:

- **Gamification:** Duolingo includes game elements. Users collect points, level up and get rewards. This approach makes the learning process interesting and motivating. The process of language learning through games becomes more convenient and entertaining.
- **interactive Lessons:** Lessons are short and interactive and help users develop reading, writing, listening and speaking skills. Each lesson teaches new words and grammar rules, allowing users to practice the language from day one.
- **AI and Personalization:** Duolingo uses artificial intelligence technology to provide lessons tailored to users' learning levels and needs. This approach creates individualized learning paths and maximizes the success of each user.
- **balanced content:** Lessons start with simple words and gradually become more complex. It helps users learn a new language in a systematic way. Each lesson repeats material learned in previous lessons, creating a solid foundation[2].
- **community and social elements:** Duolingo allows users to compare their achievements with their friends and compete against each other for encouragement. This social element further stimulates the learning process.

**Benefits of Speed Study:** Most Duolingo users report significant language learning gains in a short amount of time. Most users have significantly improved their knowledge within a short period of time after starting to use the program[3]. Below are some important features that distinguish it from other programs:

**Portable and convenient:** Duolingo is available through mobile apps, so users can learn languages anywhere and anytime. This helps balance them with work, study or other daily activities[4].



Free and easy: Duolingo works on a free basis, but there is an ad-free version and premium subscription options for additional resources. This gives everyone an opportunity to learn a language, regardless of financial means.

In conclusion, Duolingo is a fast learning program that makes language learning fun, interactive and effective. Game elements, personalized lessons and social competitions are very effective as users can learn a new language in a short amount of time. Duolingo not only provides an opportunity to learn new languages, but also makes this process interesting and entertaining, and you can make a number of friends in the process of learning a language [5]. These are all great. However, this place also has disadvantages. Some of these aspects, for example, always need to be mastered online, to learn a certain language, you need to know English, or to master English yourself, Russian is required. For example, Uzbek cannot be used as a substitute for another language. This also causes great inconvenience. The problem arises from this, that there is a need to develop a rapid reading program for mobile devices designed for learning several languages adapted to the Uzbek language.

### References

1. Martin, K. Solomon's Oracle. Java programming / Martin C. Solomon, Nirva Morisseau-Leroy, Julie Basu.
2. Mashnin, T. C. Eclipse. Development of RCP-, Web-, Ajax- and Android-applications in Java / T.S.
3. Not Java. Reference guide. Java / Patrick. - M.: Binom, 2015.- 448 p.
4. Atajonova S.B. Ergasheva M.G. Sovershenstvovanie metodiki obucheniya spetsialnyx discipline v magistrature tekhnicheskix vuzov
5. Ergasheva M.G. ECM systems and their analysis.

