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## COMPARATIVE ANALYSIS OF SOFTWARE TO CREATE INTERACTIVE APPLICATIONS СРАВНИТЕЛЬНЫЙ АНАЛИЗ ПРОГРАММНОГО ОБЕСПЕЧЕНИЯ ДЛЯ СОЗДАНИЯ ИНТЕРАКТИВНЫХ ПРИЛОЖЕНИЙ

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### ABSTRACT

*ИНТЕРАКТИВНОЕ ПРИЛОЖЕНИЕ, ПРИЛОЖЕНИЕ, РАЗРАБОТКА ПРИЛОЖЕНИЙ, ПРОГРАММА, КОНСТРУКТОР*

*The article discusses the development of interactive applications and its topicality in terms of world trends. Comparative analysis of software for application development is done. Specific features and advantages of compared programs are outlined as well as their functionality, developments fields and conditions.*

At present times people do everything in order to achieve maximum comfort and convenience in their life. For this purpose, today experts in the field of information technology are developing a variety of applications that allow to solve a huge number of problems in different areas of human activity [4]. However, as practice shows, specialized software is in great demand today. Also, it is such programs that can make their developers good money, because nowadays companies invest in products that could to some extent optimize or simplify existing business processes. In recent years, the need for specialists in the field of information technology has increased. Such dynamics allows to draw a conclusion that development of applications, in particular interactive, is actual and expedient.

Development of interactive applications requires appropriate programs or constructors, the choice of which is one of the most important stages of application development. The following programs take part in the comparative analysis: ConstructApp-application designer;

### АННОТАЦИЯ

*INTERACTIVE APPLICATION, APPLICATION DEVELOPMENT, SOFTWARE, CONSTRUCTOR*

*В статье рассмотрена актуальность разработки интерактивных приложений в контексте мировых тенденций. Проведен сравнительный анализ программ для разработки интерактивных приложений, выделены особенности и преимущества сравниваемых программ, их возможности, сферы разработки и условия пользования.*

CalcCreator – the first calculator designer in the CIS [1]; uCalc-universal calculator and form designer [6]; CalcBuilder – a software product, a tool for rapid application development, an integrated programming environment, a system used by programmers to develop software in the C++ programming language [5] and MS Excel.

The main technical characteristics of the compared design programs, except MS Excel, are presented in Table 1.

**Table 1 – Main technical characteristics of the compared programs**

	<b>ConstructApp</b>	<b>CalcCreator</b>	<b>uCalc</b>	<b>CalcBuilder</b>
Price	no	795 RUB per month	from \$3 per month	19.50€
The free version	completely free	with limited features	with limited features	there is a trial period
Installation method	HTML, by reference	HTML, by reference	HTML, by reference or extension	extension
Visual editor	+	+	+	-
HTML / CSS editor	-	+	+	+
Ready template	+	+	+	-
Your color scheme	-	-	+	-
Adaptivity	-	+	+	-
The animation in the calculation	-	-	+	+
Multi-page form	-	-	-	+
Attaching files	+	+	+	+
Mathematical operations with form fields	+	+	+	+
Branching (conditional operators)	+	+	+	+

Source: [3]

ConstructApp is completely free. The designer has a visual editor and calculator templates. It's not the easiest interface, but understandable. ConstructApp does not have the ability to accept payment and send email notifications. The service is perfect for creating entertaining

or informative calculators. Without collecting contacts, connecting Analytics and any tools hinting at a commercial component [3].

The advantages of CalcCreator are the following:

1. Cheapness. Order the creation of online-calculator to calculate the cost is a lot of money. Not everyone can afford it. As a result, there is a loss of customers. Now calculators are available for any business;

2. Speed. Creating a regular calculator takes time. To change or improve it, you will need to contact a specialist again. With this service a minimum of time is spent and the result is obtained immediately;

3. Convenience. The service allows you to create calculators of any complexity and adapt them for business and target audience. Using the "Subscription Form" option, maximum information about the client is collected. There are wide possibilities in the choice of styles and design [1].

Ucalc benefits:

1. Speed. Dozens of templates for different business areas and ready-made blocks for self-assembly;

2. Convenience. Slider, list, checkboxes, collecting contacts and receiving payments-all at hand in the visual editor;

3. Efficiency. Increase SEO performance of the site, ready-made applications for mail and phone, ability to send messages to customers;

4. Benefit. No need to contact the developers to customize, install or update the form;

5. Practicality. The ability to use on the site, as the VK application, in any messenger, social networks and mail – widget for 5 occasions [6].

The CalcBuilder costs 19.50 €. For this money it is a powerful enough tool to create calculators. Immediately a little repels the fact that the designer does not have ready-made templates calculators, visual editor. In addition, over adaptability, too, they will have to work on their own. CalcBuilder is more suitable for experienced webmasters who are not afraid to write a calculation formula in PHP and connect targets through JavaScript event handlers. Among the advantages designers should note integration with Mailchimp and import calculator from Excel [3].

The main advantage of the Office Excel program is the presence of a huge number of built-in standard functions, which allows to easily and quickly apply various calculations. A built-in function is a formula that has been prepared in advance. Before writing it, it is necessary to enter the sign "=". Excel provides several categories of functions, which greatly simplifies the work. Mathematical and trigonometric functions are used in the processing of matrices and solution of various problems. Logical functions are suitable for solving problems with certain conditions.

Working with tabular data can be greatly simplified by using statistical functions. They allow

to carry out economic research and statistical calculations. Financial, textual, engineering and information functions occupy a special place among the categories. It is also possible to process all data in time and date format.

Excel developers have made sure that the use of functions does not cause any difficulties for users. The function wizard was created for this purpose. It helps to enter formulas correctly and maintain the sequence of data entry. Using such a service helps to quickly apply standard features. The user can display the data right after entering a formula onto a worksheet by creating a graph or chart.

It is also worth mentioning the possibility of autocomplete, which works when using any function from the list. It should be borne in mind that due to the specific type of addressing, the arguments of functions may change. In practice, autocomplete function works very simply [2].

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