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100% focused on  
Test Automation

# SOFTWARE TESTING

**and Quality Assurance**

# TRENDS IN 2023

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# Software Testing and Quality Assurance Trends in 2023

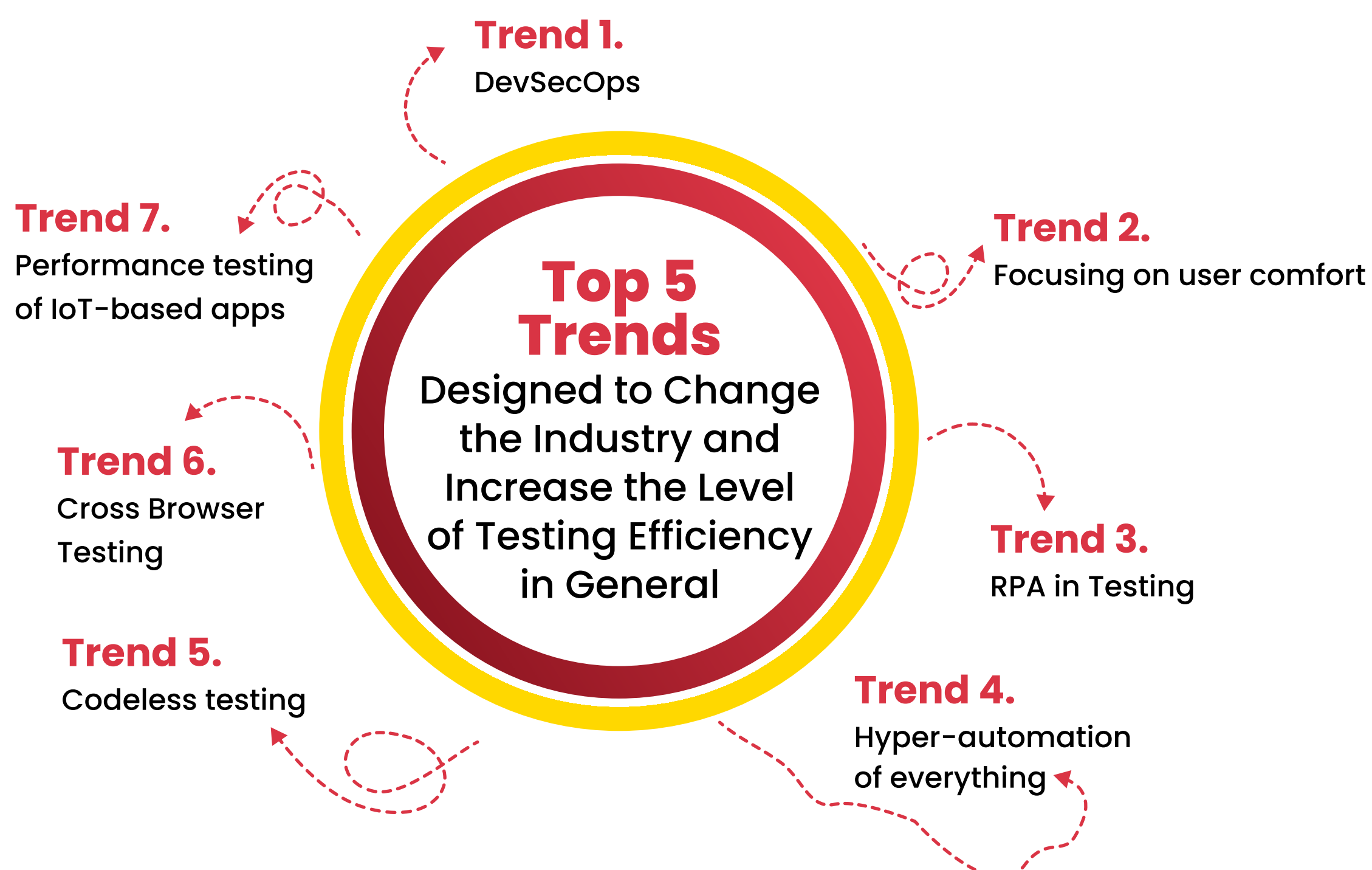
Digital technology has firmly established itself on the crest of a wave of innovation. They affect every sphere of human activity and all types of business to one degree or another. Naturally, app development for desktop, mobile systems, and browsers is entirely dependent on technological progress. This area actively uses new methodologies and advanced solutions and is the first to implement promising trends.



Automated testing of IT solutions is currently an integral part of the development process and one of the first to receive modern progressive tools to improve efficiency. According to a study by Verified Market Research, the industry is also actively strengthening its position in the market; the CAGR level is kept at 18.36%, and the projected value of the sphere by 2028 will reach \$63.9 billion. In the foreseeable future, automation will gradually transform into a more modern tool assuring the IT solutions quality. It will become possible thanks to the introduction of trending technologies and methods to optimize the industry's routine processes and specific tasks.

## Top 7 Trends Designed to Change the Industry and Increase the Level of Testing Efficiency in General

Companies have changed their approach to test automation, and modern technology has brought innovations to the stages of software development. Now the development of DevSecOps, robotic process automation (RPA), artificial intelligence (AI), machine learning (ML), and codeless testing define the main trends in 2023.







The modern approach to QA processes is far from ideal. This is confirmed not only by testing teams but also by business analysts. Often, investments in QA exceed its real efficiency, and here the problem is rather in technological support. The current tools do not fully cover the test needs, and highly qualified specialists are needed to create scripts. The future lies in simple things, such as codeless testing, delegating tasks to AI, and even full hyper-automation of processes with minimal control from QA experts.

### Trend 1. DevSecOps

Software security is among the most important issues in the digital age in 2023 and beyond. As enterprises adopt cloud technology, it will come first and become the default DevOps feature.

For example, Nintendo (owner of the game Pokemon Go) used integrated DevSecOps automation and was able to protect the confidential information of billions of children.

According to [Reportlinker](#), the global DevSecOps market will reach \$21.3 billion by 2027 due to changes in the business structure after COVID-19. In comparison: in 2020, it was estimated at \$2.9 billion and will increase by an average of 33.1% over the analyzed period.



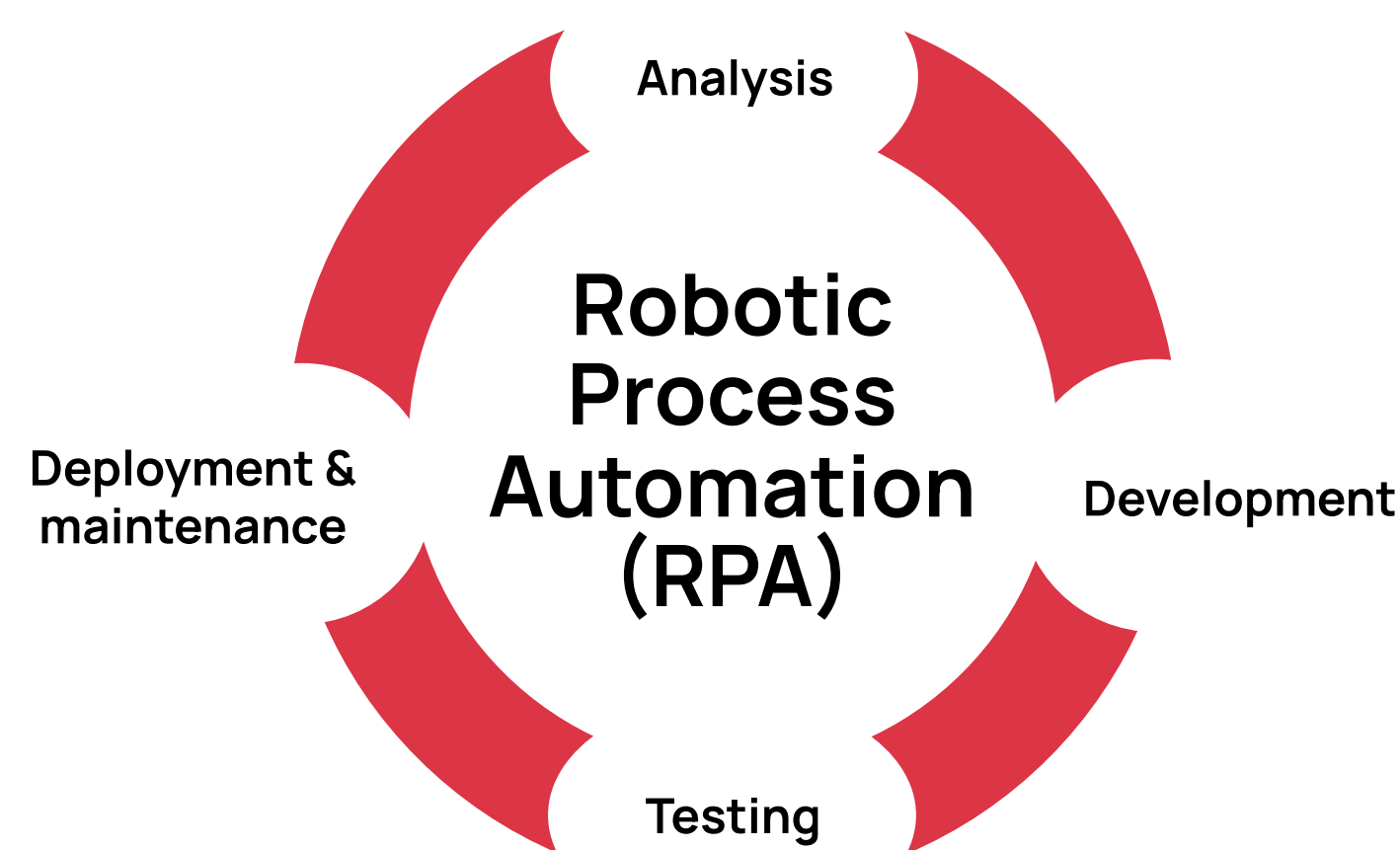
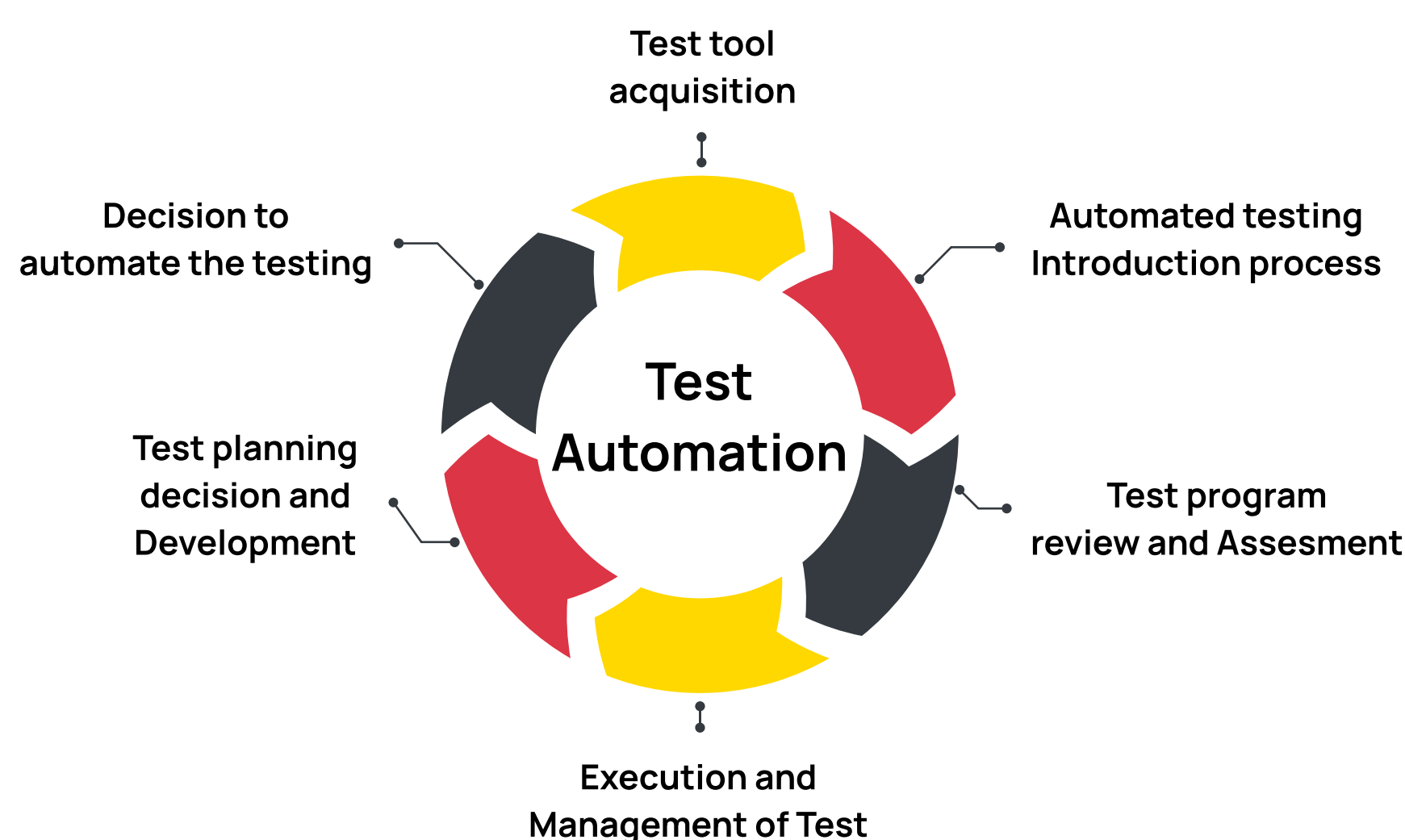
### Trend 2. Focusing on user comfort

Functional testing has been leading the priorities of QA companies for quite a long time. It was believed that the correct processing of requests is the app's primary purpose, and therefore, less attention was paid to other characteristics. Now development and testing are done in a user-friendly way, i.e., the main focus is on: accessibility, security, performance, and stress resistance. All of these types belong to non-functional testing, and their task is to ensure maximum user comfort while working with an IT solution.

Customer focus will remain relevant in the next ten years because the success of both businesses and startups directly depends on the convenience of working with the app.



### Trend 3: RPA in Testing



Robotic Process Automation is the next step into the world of full automation. In addition to routine processes, modern advanced technologies can be delegated to complex tasks, such as complex automation, up to creation of regression testing scenarios. In conjunction with AI, ML, and their potential, it will be possible to implement autonomous systems for a comprehensive study of IT solutions. The best indicator of global community engagement is market growth, which Statista predicts will be worth \$16 billion by 2030.

The trend for process robotization will be extended into 2023, 24, 25, and beyond. As long as there is potential for the development of methodologies and testing or development tools, the need to minimize the influence of the human factor will not disappear.

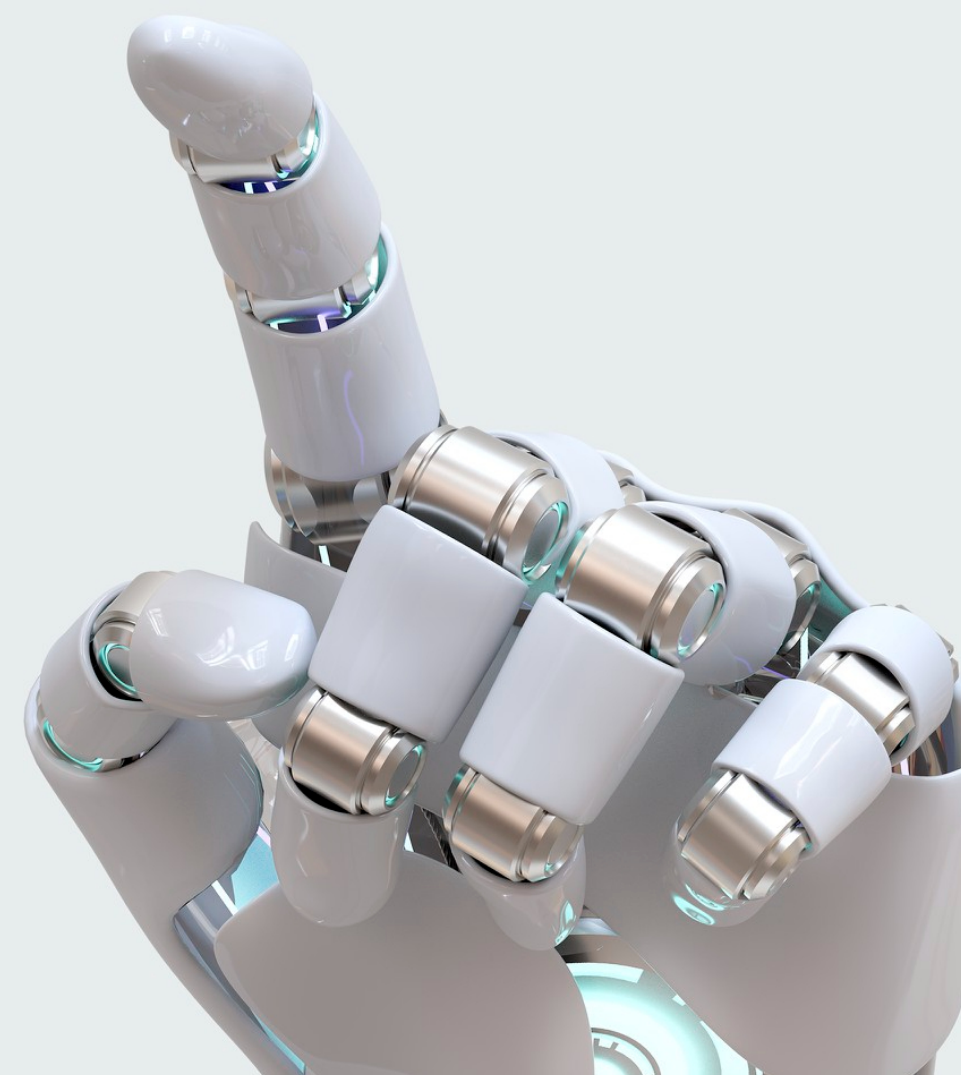




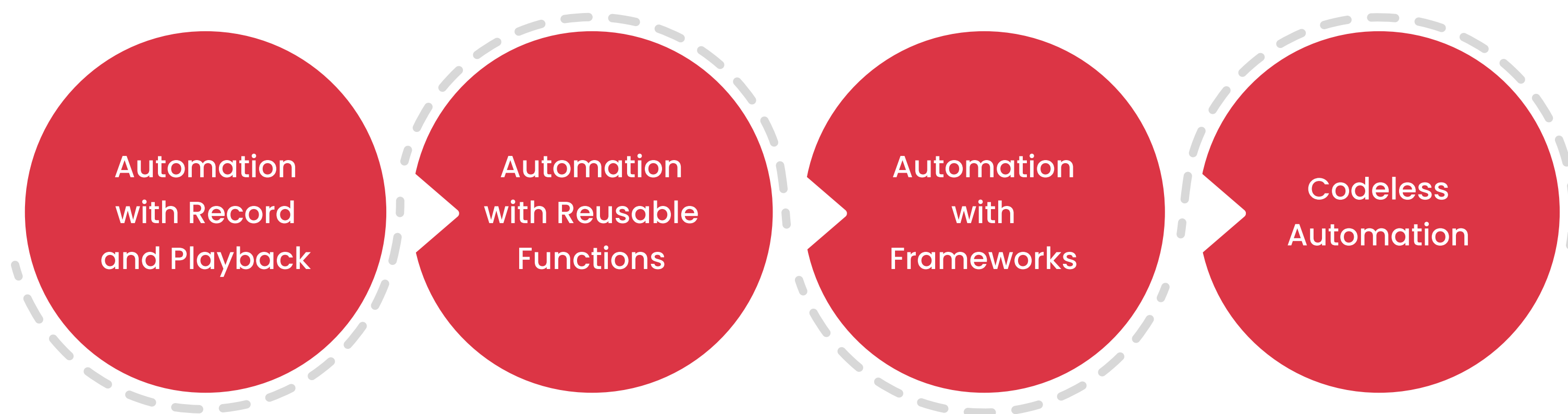
## Trend 4. Hyper-automation of everything

If someone told you ten years ago that you could write a program that could independently check IT solutions for bugs, apply different techniques and adapt to the situation independently, would you believe it? Now the AI research course aims to complete the automation of everyday operations with subsequent adaptation to any conditions, analysis of Data Lakes, and the use of ML to solve any issues autonomously. This trend is not new because research has been going on for more than ten years, periodically delighting the community with progress.

Hyperautomation is now in its infancy, and the trend toward its development will continue until autonomous systems are developed.



## Trend 5. Codeless testing



The complexity of modern QA mechanics lies in the high threshold for young talents to enter this area. It is due to the need for a thorough study of development languages and the need to use them when creating more or less effective automation scripts. Numerous tools, their syntax, and various conditions of use complicate the testing and require more resources and time.

An alternative approach would be codeless testing. According to [Future Market Insight](#), the demand for this format will grow by 15.5% until 2031. Its principle is interface or simplified scripting. As this trend develops, the threshold for entering the industry will decrease, and simultaneously, the testing quality will increase.

## Trend 6. Cross Browser Testing

Each browser displays HTML, CSS, and JavaScript differently, skipping tabs, resizing icons, and distorting the interface. Cross-browser testing allows you to evaluate a website's or web app's performance and functionality on hundreds of devices and operating systems. For example, you can test:

- Main combinations: Chrome in Windows 11 and Safari in macOS.
- Different versions of browsers: Internet Explorer 11, Edge 18, and others.
- Any device: laptops, desktops, tablets, and smartphones.

In 2023, cloud cross-browser testing is predicted to be as widespread as possible because it ensures that the digital product works properly for all users.

## Trend 7. Performance testing of IoT-based apps

Every year, the number of interconnected devices in the market grows, so their performance is also subject to testing. [Statista](#) predicts that by 2025, the base of devices connected to the Internet of Things (IoT) worldwide will total 30.9 billion units, a sharp jump from 13.8 billion in 2021.

In the coming years, companies will focus on automatically testing their single-networked devices to ensure they work properly. Also, along with this will come the testing of the mobile apps that fill the market.

# Summarizing

We can confidently say that the trends of 2023 for the automation and technology market, in general, will remain with us for the next five or even ten years. How soon fundamentally new solutions in QA services will appear depends on the speed of their development. This applies to services, processes, and general tools since future technologies will minimize the human factor while ensuring the proper quality of software solutions. Do you want to keep abreast of the latest developments in the IT universe? Take a look at our other blog posts.

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