**1>Which components have you used in Load Runner?**

## :- What is Load Runner?

Load Runner supports various development tools, technologies and communication protocols. In fact, this is the only tool in market which supports such a large number of protocols to conduct Performance Testing. Performance Test Results produced by Load Runner software are used as a benchmark against other tools.

The key components of Load Runner are:

1. **Vuser generator –** For generating Scripts
2. **Controller –** For creating and executing scenarios
3. **Analyzer –** To analyze results.

**2> How can you set the number of Vusers in Load Runner?**

**:-** You can set the number of Vusers in the controller section while creating your scenarios. Many other advanced options like ramp-up, ramp-down of Vusers are also available in the Controller section.

**3> What is Correlation?**

**:-** Correlation is used to obtain data which is unique for each run of your test script (ex: session ids). While recording, these dynamic values are hard-coded in your script causing the script to fail during playback. Correlation is a technique where dynamic values are not hard-coded in your script but are extracted at run-time to avoid failure.

**4> What is the process for developing a Vuser Script?**

**:-** There are four steps for developing a vuser script.

1- Record the Vuser Script.  
2- Playback / Enhance the recorded vuser script.  
3- Define the various run-time settings & check  
4- Incorporate the script in a LoadRunner scenario

**5> How Load Runner interacts with the application?**

**:-** Protocol is used in Load Runner to interact with the application.

**6> How many VUsers are required for load testing?**

**:- This is essentially a trick question**.

The number of VUsers required depends on your system under test, network configurations, hardware settings, memory, operating system, software applications objective of a performance test. There can not be any generic value for Vuser.

**7> What is the relationship between Response Time and Throughput?**

**:-** The Throughput shows the amount of data in bytes that the Vusers received from the server in a second. When It is compared with transaction response time, throughput and response time get decreased.

The peak throughput and highest response time would occur approximately at the same time.

**8> What is Automation Testing?**

**:-** If you are in the technology sector, navigating the Quality Assurance (QA) aspect of the product development cycle is likely a familiar terrain. Whether you're an engineer, a QA lead, or even the CEO, chances are you've rolled your sleeves up and delved into testing first-hand. Automating as much of the QA process as possible is a sensible way to approach testing.

In our role as 9providers of [crowdsourced tests](https://www.globalapptesting.com/blog/crowdsourced-testing), where automation takes a backseat, we've observed that a considerable number of our clients uphold an automation-first philosophy. We offer a versatile supply of specialized [manual testing](https://www.globalapptesting.com/manual-testing-best-practices) to complement this ethos to ensure a comprehensive and tailored testing strategy.

Now, the question arises: *Where should the line be drawn when it comes to automation?*Dive into the insights below to discover what aspects of your testing process you can and should automate.

**9> Which Are the Browsers Supported By Selenium Ide?**

**:-** Selenium IDE (Integrated Development Environment) primarily supports the following browsers:

1. **Mozilla Firefox**: Selenium IDE started as a Firefox extension and has been primarily associated with Firefox for a long time.
2. **Google Chrome**: More recently, Selenium IDE has been made available as a Chrome extension, allowing tests to be recorded and played back in Chrome.

These browser extensions for Selenium IDE provide a user-friendly interface to create, edit, and debug Selenium test cases and test suites. The tests are created using a record-and-playback approach, making it easier for users without extensive programming knowledge to create automated tests for web applications.

### **Key Features of Selenium IDE**

* **Record and Playback**: Users can record user interactions with a web application and play them back to execute tests.
* **Selenese Commands**: Provides a set of commands for performing various actions like clicking a link, selecting an option from a dropdown, etc.
* **Export Tests**: Tests can be exported in various programming languages like Java, C#, Python, etc., for use with Selenium WebDriver.
* **Debugging and Test Suites**: Offers features for debugging tests and organizing multiple tests into test suites.

### **Limitations**

* **Limited to Web Browsers**: Selenium IDE is limited to the web browsers it supports, primarily Firefox and Chrome. It does not support other browsers like Safari, Internet Explorer, or Edge directly.
* **Limited Functionality**: While Selenium IDE is great for simple tests, it may not be suitable for more complex test scenarios that require conditional logic, loops, or extensive data-driven testing. For these, Selenium WebDriver with a programming language is recommended.

**10> What are the benefits of Automation Testing?**

**:-** The benefits of automation include improved accuracy, reliability, and productivity, as well as improved employee morale. Let’s delve in detail into 10 of the benefits of automation.

1. [Efficiency](https://www.impactmybiz.com/blog/advantages-of-process-automation/#efficiency)
2. [Productivity](https://www.impactmybiz.com/blog/advantages-of-process-automation/#productivity)
3. [Cost Savings](https://www.impactmybiz.com/blog/advantages-of-process-automation/#cost-savings)
4. [Compliance](https://www.impactmybiz.com/blog/advantages-of-process-automation/#compliance)
5. [Reduced Errors](https://www.impactmybiz.com/blog/advantages-of-process-automation/#reduced-errors)
6. [Customer Satisfaction](https://www.impactmybiz.com/blog/advantages-of-process-automation/#customer-satisfaction)
7. [Increasing Employee Satisfaction and Retention](https://www.impactmybiz.com/blog/advantages-of-process-automation/#employee-satisfaction)
8. [Eliminate Paper-Based Processes](https://www.impactmybiz.com/blog/advantages-of-process-automation/#paper-based-processes)
9. [Standardization and Cleaner Data](https://www.impactmybiz.com/blog/advantages-of-process-automation/#cleaner-data)

10.[Scalable Processes](https://www.impactmybiz.com/blog/advantages-of-process-automation/#scalable-processes)

### **1. Efficiency**

Automation, particularly when you can use software robots to emulate repetitive human actions like robotic process automation (RPA) software does, can make a big impact on the overall efficiency of your organization in different ways. Some of the effects include:

* **Faster Processing**—Compared to humans, RPA can complete several times as many processes so you can handle more transactions more quickly.
* **24/7 Operating**—RPA software robots don’t need to sleep and don’t get tired. They process around the clock, keeping certain business tasks and operations running at all hours. If something needs human attention, they also have the ability to set tasks aside until morning.
* **Analytics Collection**—RPA collects data on everything it does, filing it into reports that you can analyze and to identify issues in your processes you might not have noticed. This will help check for common process ailments like bottlenecks, inefficiencies, and slow areas.
* **Improved Accuracy**—Using RPA software helps to remove the vast majority of human error from processes as it’s designed to follow specific rules.

### **2.Productivity**

One of the most obvious benefits of process automation is the **boost in productivity that comes with handing off repetitive tasks to robots** who can work longer and faster than a human.

Additionally, automation solves some of the wasted time presented by the “productivity paradox,” where more technology slows processes down as people spend time navigating, switching between, and training on new apps. This poorly integrated technology is solved by RPA.

The amount of boosted production depends on what type of RPA robots are being deployed. There are two different types that have different working relationships with their human counterparts:

* **Attended Bots**—These bots work in collaboration with humans in order to complete transactions. A human might focus on customer-centric tasks while the bot handles data, calculations, reporting, and notifications. Because of the human element of attended RPA, the process is slower.
* **Unattended Bots**—In this case, processes are automated and executed without human assistance required. The bots are free to operate 24/7 which means production is ramped up.

### **3. Cost Savings**

Automation saves money in different ways within your business.

First, it takes away repetitive, “boring” tasks from workers so they can focus their time on more important tasks and ones which require creative and critical thinking.

This **saves money by removing a lot of wasted time for your employees** who can now tackle harder issues within your organization.

It’ll help you reduce the parts of your paid wages that go toward these types of tasks and, in some cases, completely replace them. This means you can also re-invest those wages into different jobs that will make a larger impact on business.

### **4. Compliance**

If a business is in one of the many fields which require maintaining certain regulatory standards (finance, healthcare, etc.), then RPA can actually help you get and stay compliant with those regulations.

Deploying RPA can help businesses build out their compliance programs by providing another level of oversight and control over processes.

RPA bots perform every process exactly the same every time—this **reduces the chances of errors**. The bots also report their own actions into an activity log which means you get a 100% accurate audit trail.

This is a crucial element of most security regulations, which require organizations to have a clear understanding of the state of their data and ensure that it is always handled safely.

### **5. Reduced Errors**

Errors can be expensive—they cost businesses over $62.4 million every year—but using **RPA robots greatly reduces the risk of human error** in your processes because a bot performs tasks the same way every time as programmed. Additionally, since data is automatically ported, there is no chance of typos or other attention span-based mistakes.

Fewer errors also relieve some of the burden on your workforce by allowing your staff to spend less time dealing with the fallout. This saves the business money by not having to dedicate time to reworking, not to mention avoiding costly fines or even network downtime.

RPA also reduces errors on a larger scale through data gathering and report building that can give a company a better idea of their processes’ weak points and how to improve efficiency across departments.

### **6. Customer Satisfaction**

One of the most exciting robotic process automation benefits is the positive effect it can have on your customers, their experience with your business, and the way that you serve them.

With RPA, you can **respond to customer queries faster and more efficiently**, respecting your customer’s time and handling their questions and requests successfully at the exact moment they need answers.

What used to take hours or even days now only takes minutes. This, of course, can be applied to any number of customer interactions, including order processing.

Process automation like this will improve your company’s reputation among your audience through positive word-of-mouth, stronger online reviews, and increasing repeat customers.

### **7. Increasing Employee Satisfaction and Retention**

Nothing tires an employee more than boring work. Luckily, RPA specializes at removing that kind of repetitive, time-consuming work and allowing those workers to focus on things that challenge them to think creatively and critically.

This **increases efficiency, raises morale, and even boosts productivity** in a workforce when it is successfully implemented.

One challenge many businesses face when looking to implement RPA is getting buy-in from the same people whose lives will be easier once the bots are deployed as they get nervous that the automation will replace their jobs entirely.

However, when it is clearly communicated that implementing RPA won’t leave them searching for work, they know what the changes to their day-to-day tasks will look like, and understand that the advantages of automation include making their job easier and more exciting, they often end up being the software’s biggest advocate at the company.

### **8. Eliminate Paper-Based Processes**

Using RPA is a very environmentally-friendly option because it lets you take processes that usually eat up paper and other resources and digitize them so they don’t require consumables at all.

Beyond digitization, a [digital document workflow](https://www.impactmybiz.com/blog/blog-digital-document-workflow/) incorporates automation into processes involving files. It routes each document to any human that needs to see and sign off on it, and then stores it in an easily-findable and searchable shared folder.

By establishing these digital document workflows, **you can effectively eliminate all paper use within your organization,** making you greener and saving you money and time.

### **9. Standardization and Cleaner Data**

As we’ve discussed, one of the advantages of automating processes is that the way information is handled is standardized, so there’s no need to go back and clean up any data your company may have.

A key element of growing your organization is having measurable goals, and then tracking defined key performance indicators (KPIs) to determine whether or not your plan to meet them is working. However, when information is handled entirely by humans, it can be riddled with errors, making it impossible to trust your KPIs or measure the effectiveness of your strategy.

With this reliable, standardized data, it’s much easier to analyze what you have for patterns, see how your long-term plans are working, diagnose pain points, make informed decisions for the future, and implement a [business intelligence strategy](https://www.impactmybiz.com/checklist/business-intelligence-strategy-checklist/) to grow even more.

### **10. Scalable Processes**

An automated, robotic workforce has the ability to be whatever size you need it to be depending on your business.

**If you grow, it’s easy to grow your RPA alongside you** for minimal extra cost. This is a massive benefit of automation that allows your business to be as agile as possible by quickly and efficiently scaling up or down depending on the time of year or because of consistent growth.

It also means that you’ll never outgrow your automation solution, nor will you ever be forced to pay for software that is much higher capacity than what your business needs at the time. RPA meets exactly what your needs are exactly when you need it.

**11> What are the advantages of Selenium?**

**:-** Following are the different advantages of selenium:

### **1. Low Barrier for Entry**

Selenium IDE is a Chrome and Firefox browser plug-in. It means that virtually no technical expertise is needed to install and start testing by recording and replaying user behavior. The IDE’s graphical interface often allows users who are not inherently trained in a WebDriver-supported programming language to be made aware of the process of modifying or editing tests. Moreover, Selenium IDE also allows users to incorporate advanced logic such as assertions, control flow (if any), and looping (e.g., do x while y is true) (e.g., do x while y is true) (e.g., do x while y is true).

### **2. Test Suites Are Light-Weight and Very Portable**

It is stored as a “. side” file (for example, “my test. side”) when we save a test or a test suite for a SIDE. The tests can be easily edited by modifying them or comparing their contents in JSON format. An example of how editing could change all starting URL instances in a text editor such as Sublime Text using “find and replace” functionality. It also makes test files tiny and easy to portably. It can be shared employing team collaboration apps such as Slack and MS Teams or dedicated to a repository code like git as an email attachment. The industry standard for the *benefits of automation testing* is open source and free.

### **3. Now. side files can be run from the Command Line**

When expanding our range of the browsers being evaluated or conducting tests in parallel, there is a slightly more technical solution that allows us to execute files on the “side.”

### **4. Well Documented**

A specific population of Selenium users and questions and answers valued over the years are available online is one of the advantages of selenium. Nevertheless, a word of caution: some of the papers and Q&As refer to previous SIDE versions and do not apply to the new edition.

### **5. Supports Plug-Ins**

Selenium IDE enables plug-ins to be developed. We can add features based on our needs to SIDE if we have an in-house development team. If we have no internally available tools, there are many third-party and open-source plug-ins, which would probably suit our needs.

### **6. Export Code**

One of Selenium IDE’s most requested and long-awaited functionality is now live – testing in many common scripting languages for test suites can now be exported. JUnit (Java), Pytest (Python), and Mocha are examples of these (JavaScript).

This feature opens the door to users’ quick test prototyping without any technical expertise. These tests can easily be passed to engineers who can modify or run them with the WebDriver. In contrast to WebDriver checking, this workflow will greatly reduce the development time.

**12> Why testers should opt for Selenium and not QTP?**

**:-** This question pops into everyone’s head when there are two or more best tools in the market.

The best test automation tool for you will depend on your specific needs and requirements. If you are looking for a commercial tool with a wide range of features and support for record-and-playback, then QTP/UFT is a good choice.

If you are looking for an open-source tool that supports a wide range of programming languages and operating systems, then Selenium is a good choice.

For example, let me say your team is already familiar with VBScript and the Windows operating system. Here QTP/UFT may be a better choice. On the other hand, if your team is more experienced with other programming languages and operating systems, Selenium may be a better fit.