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RPA TESTING 101:

A Beginner's Guide to Automation Testing

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As companies continue to adopt and implement RPA into their organizations, proper testing methods and techniques become even more important to make the transition to RPA as successful as possible. Although RPA testing practices are similar to that of other types of software testing, they are different in other ways. Below are some key lessons learned from past implementations:

1. **Understand the business process.** As a process is being automated, it will go through many changes. Before any testing activities can begin, the primary goal of the test team should be to fully understand the newly automated process. This is one of the most important steps in the test cycle because it lays the foundation on which the other steps are built. The best way to understand the process is to review the Process Definition Document (PDD), the Solution Design Document (SDD) and any other documentation that was created during the design phase of the automation. Once the team understands the business process, it can move on to the next step, creating the test scenarios to test the code against the business rules.

2. **Test scenarios.** Now it's time to verify the automation has been developed according to the business rules documented in the design documents. The key to having good test scenarios is to make sure they are clear, concise and cover each business rule noted in the PDD/SDD. Usually, the SDD lists the required scenarios that need to be validated during testing, but it's also important to review the process flows and cross-verify the SDD for any missing information.

3. **Test scripts.** This stage requires putting together the information you've previously gathered. The test script is made up of numerous test cases with a variety of explicit outcomes. It is typically in an Excel format and will contain the test scenarios, input data requirements for testing the scenarios, expected and actual results, and a pass or fail column. Like the test scenarios, it is best to write the script clearly and concisely. The more thorough the script, the less chance of gaps or missed test scenarios. Depending on the complexity of the process, it can be a good idea to have the design team review the script and make any changes or suggestions. This additional step can help eliminate any gaps that may arise during testing.

4. **Test the data.** Test data is the fuel for the fire. Without valid test data, automation testing can lead to inaccurate test results, which can lead to invalid defects, often creating a strain on the testing timeline. This is why it's important to have a clear understanding of what type of data and format you need for a successful testing cycle.

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5. Manage defects. As expected with any automation testing, defects will be found. The team must document the defects and notify the development team. The key to effective defect management is detail. The more information the test team can provide, the quicker the correction can be made. Some ways to provide details include writing the test-case description, taking a screenshot of the error, recording where the process is failing, attaching the input file used to test, and attaching the output file produced by the automation.

A lot goes into successfully deploying a new automation. Though testing is the final step of the deployment process, it is an essential one. ISG helps enterprises apply lessons learned to ensure a smooth and effective testing cycle for any RPA project. Contact us to discuss further.

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