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BLACK
WHITE
& TESTING

QUALITY COMES WITH
100% TESTING

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Executive Summary

Now a days, every organization requires testing; as testing is as good as development. Most of the automation tools are replacing manual testers, whereas automation testers are being replaced by SDETs. SDETs are powerful resources to achieve perfect quality of the product, by performing White Box and Black Box Testing approaches.
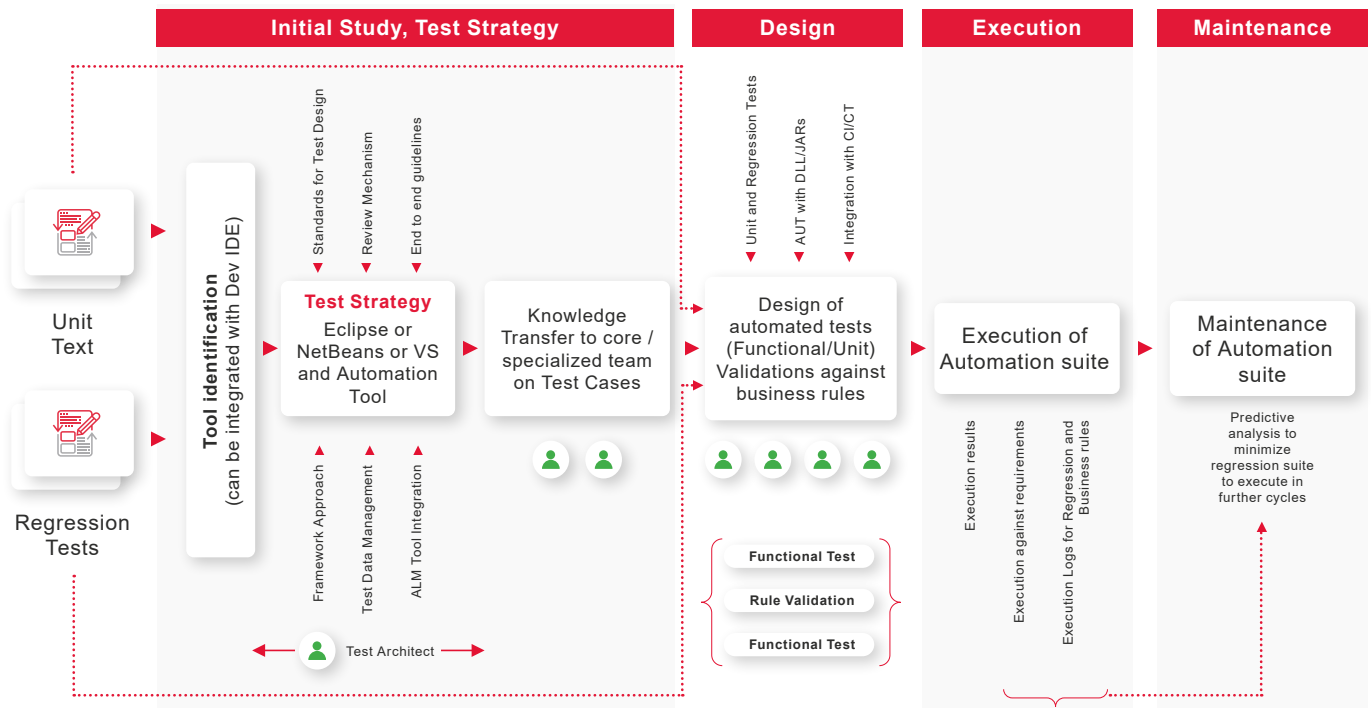
Objective

Over the years, we have been using Black box and white box testing techniques but they are not fully integrated and fully leveraged. Some of the organizations are following shared/joint development environment for coding and testing, while the teams are working in silos. This thought paper is to achieve 100% collaboration between development and testing activities; also combine Black and White box activities to achieve quality product and near zero defects in production.

BLACK and WHITE Testing

This technique is to use same IDE/Environment for coding and testing. Development team follows their own unit testing activities and finally produces the DLL/JAR files with the required business rules/ validations, while testing team uses the libraries (.DLL/.JAR) in test automation and leverages the DLL/JAR files to perform business rule validations, instead of writing additional code in test automation to validate the business rule. This testing internally validates the business rules by leveraging functional test automation of regression flows, thus affecting the defined framework approach for test automation. This approach will generate better quality of product and achieve near zero defects in production, by validating the business rules and flows thoroughly, by the testing team.
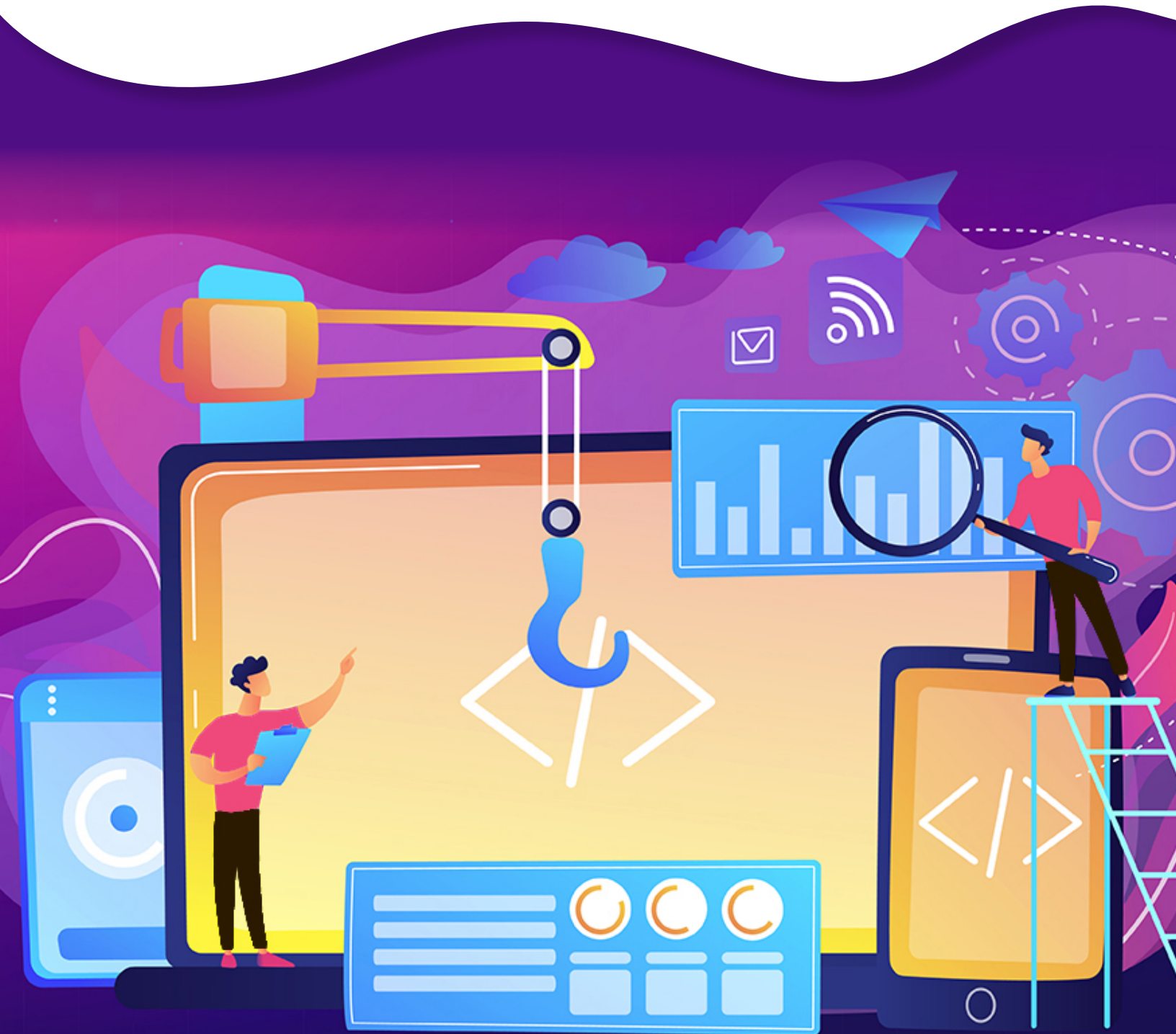

To achieve this type of approach in test automation, the testing team should be expertised in different test automation tools, which support Black and White testing e.g. Eclipse/Visual Studio/IntelliJ etc.. SDET resources are the right candidates to achieve Black and White testing because SDETs have experience in both coding and testing activities.

Advantages of BLACK and WHITE Testing

- Saves 20 to 30% of efforts in design logic (to validate business rules) in functional testing

- Saves tool cost in functional test automation tool (by leveraging IDE specific tools)

- Shared/joint environment for development and testing

- Single place to perform Unit (e.g. validation of business rules) and Functional Test Automation

- SDET role to achieve more test automation

- Easily leverages IDE features for robust testing

- Integrates with DevOps and DevQAOps

- Supports in implementing Black and White testing in all the development methodologies

- Validates business rules with functional/ regression tests in each release

- Improves overall quality of the product

Conclusion

All the applications are moving towards the web technologies to develop/migrate and Black and White testing would help in testing the applications by reducing test automation efforts and making it easy to achieve more automation in Unit and Functional testing.

Kishore Kandula is a technology leader with 17 years of experience in Testing, QA and Automation in Software Service Industry. He has worked with various customers including Banking, Oil and Gas, Manufacturing verticals also managed large teams with proven experience in Test automation, RPA, DevOps and Agile initiatives, Enterprise delivery pipeline for CI/CD/CT. He is frequent with participating in customer workshops, providing the right tools, right framework and required approach to generate early ROI. Kishore has established expertise in setting up end to end automation from design to execution using different tools which include Licensed and Open source also as he is certified in test automation, RPA, and Machine Learning areas.

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