

# LUCRATIVE OUTGOING OF CONTINUOUS FUNCTIONAL TESTING AUTOMATION

*Test Framework development aimed at the automation of functional tests execution on a continuous basis resulting in the improvement of quality, time- and cost-saving measures with less manual testing efforts.*



## SOLUTION

*Within the course of the project the general solution structure can be defined as follows:*

1. Maven project setup with the division into the Core part and tests.
2. Utilization of the TestNG-based framework for script creation.
3. Web application structure establishment. The base test was created from one side with the description of all common test methods, preparatory steps etc. and the composition of the web application itself, including web pages and web components, from another side.
4. Test execution with the help of Maven.
5. Detailed HTML-view reporting, i.e. information on run and failed tests, reasons for failure, screenshots etc.

The additional steps in the process of functional testing implementation are also of great importance. In general terms, these are points referring to the solving the timing issues, i.e. page or element loading time optimization. Complementarily, the configuration was set up, i.e. cross-browser support in the Core part as well as a cross-platform one. Methods for data reading from different files types, e.g. yaml, csv, properties, were implemented.

### Customer

One of the leading companies of top-level training management solutions for aviation industry.

### Industry

Web-related software

### Challenge

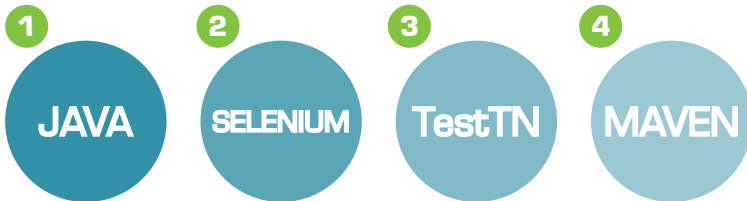
The main challenge of the project rested in the creation of a powerful testing tool. The vital point of this tool was geared towards the possibility of mobile web support and cross-browser feature availability. Solving the task of greater loading time consumption was taken into consideration as well. The core focus went to the validation of the Framework reliability, i.e. minimization of the test failure possibility when the application changes. In addition, the comprehensive information on detailed test failure should have been, in essence, provided.



## Solution overview

The solution of the test framework development itself enabled a user to run tests with the possibility to create a variety of configurations, e.g. browser type, number of parallel test runnings, environment title. Moreover, Framework can be included into the continuous built environment.

## Technologies and tools



## Key deliverables

In the project output, key deliverables are the HTML reports but having holistic-view information that contains the exact percentage of the successfully run tests and failed tests correspondently. Additionally, the data on the reason for test failure with intelligible screenshots are given.

## Business benefits

- Reusability for web applications
- Minimization of manual testing efforts
- Quality improvement
- Time and money spending decrease
- Running tests in parallel
- cross-browser support
- cross-platform (including mobile web)



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