

# Abstract

In a competitive and demanding market where web applications are fundamental it is expectable that they quickly adapt to new requirements. It is paramount that companies can evolve their web applications either to fulfill customers' requirements or adapt to internal changes allowing them to stay competitive.

With this goal in mind, OutSystems created the OutSystems Platform as a tool to support web applications lifecycle. The OutSystems Platform not only allows the creation of web applications in standard technologies (ASP.NET or J2EE) but also streamlines the development process.

The need to change demands rapid validation of the performed changes, something that traditional technologies can not keep up. Web applications testing technologies (e.g. HttpUnit, WebDriver) are still operating at the page structure level and offering no other options to interact with HTML elements in a browser. This impacts the cost of developing and maintaining tests for applications that evolve rapidly.

This thesis focuses on allowing rapid development and adaptation of web application tests. By taking advantage of the visual models used by the OutSystems Platform to generate web applications, and taking advantage of the Selenium WebDriver framework, we present a solution that generates a test framework that allows tests to be developed closer to the application domain.

**Keywords:** software testing, web applications, software quality, code generation



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## **Suporte a Testes Automáticos em Aplicações Web Geradas com a OutSystems Platform**

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