

The background is a dark blue, semi-transparent image of hands typing on a laptop keyboard. Overlaid on this are several circular icons with a gear-like border: a bar chart with an upward arrow, a hand holding a gear, a group of people, a large gear, a clipboard with a checklist, and another gear.

# **WORKPLACE RISK MANAGEMENT COMPANY APPROACHES ZUCI FOR TEST AUTOMATION AND QA PROCESS CONSULTING**

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**CASE STUDY**



**Industry - Software**



**Location - England, UK**



**Services Offered - QA consultation**

## QA CONSULTATION CASE STUDY



With Zuci's QA consulting services, the 44-year-old company with leading compliance and risk management solutions realizes the areas of improvements in their QA functions paired with recommendations.

## ABOUT CUSTOMER



Our client is a market-leading risk management solutions provider based in the UK with a global reach, serving over 45,000 customers.

The company was dedicated to its mission of creating safer and better workplaces through the use of their knowledgeable teams and advanced technology. Their goal was ambitious, they aimed to protect five million workers in North America from workplace incidents by the year 2025. Encountering software quality challenges, they wanted to optimise their QA process and identify any potential weaknesses.

That's when Zuci's consulting specialists were approached to evaluate the quality of the company's QA process, detect its shortcomings, audit the test automation framework, and come up with recommendations for improvement.

## HOW ZUCI HELPED



Zuci's QA consultants were eager to take on the challenge and help the company achieve its goal of creating better workplaces.

As part of the assessment, our team carried out interviews and questioned the client's QA team members and thoroughly analysed all QA artifacts: Code base, Cypress automation framework, Azure pipeline and QA processes.

## HOW ZUCI HELPED



**A comprehensive report was created that includes all the results, suggestions for improvement, and a plan for implementing the proposals.**

Zuci's consultants defined some of the problem areas and submitted proposals including the following:

### **Test automation framework:**

The client's automation test suite was written in Cypress version 9.4.1, which was lacking some of the latest capabilities. The QA consultants suggested that the client migrate to Cypress version 10, as this would provide several benefits, including:

- The ability to integrate with the Cypress Dashboard for easier analytics
- Advanced debugging capabilities with the Command Console

## HOW ZUCI HELPED

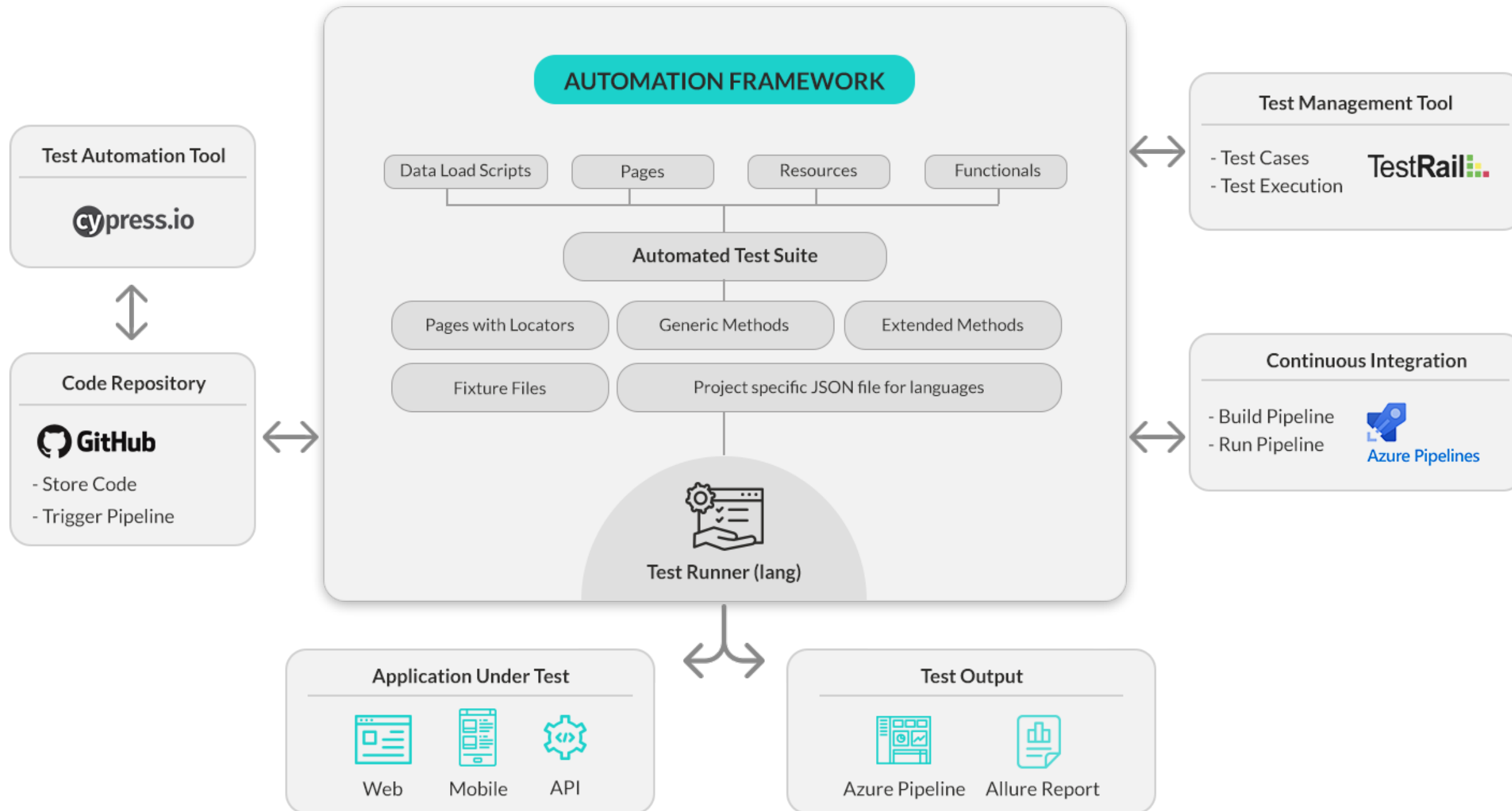


- Easy integration with reporting tools such as the Mochawesome report and Allure report
- The ability to group test cases and run the grouped test cases
- The ability to add tags to test cases
- The integration of the Mochawesome report for easy analytics and analysis of test cases

The consultants also noted that the current test framework lacked localization support and recommended adding language-specific json files for testing multiple languages.

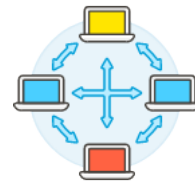
Additionally, they observed that the test framework was implemented in three levels (pages, resources, and functionals), which made understanding the test cases tedious. As a result, they recommended revamping the framework to adopt the page object model in two levels (pages and tests) for improved clarity.

# PROPOSED TEST AUTOMATION FRAMEWORK





## AZURE PIPELINE



Suggested to create a new pipeline and use pre-defined images as this will save approx. 50 mins of execution time



Suggested having two pipelines

- Build Pipeline: Used for running tests without having to deploy
- Deploy Pipeline: Used to deploy changes into the specified environment



The consultants also recommended implementing measures to avoid build failure issues. For example, suggested using an incremental database to prevent various cypress data load failures



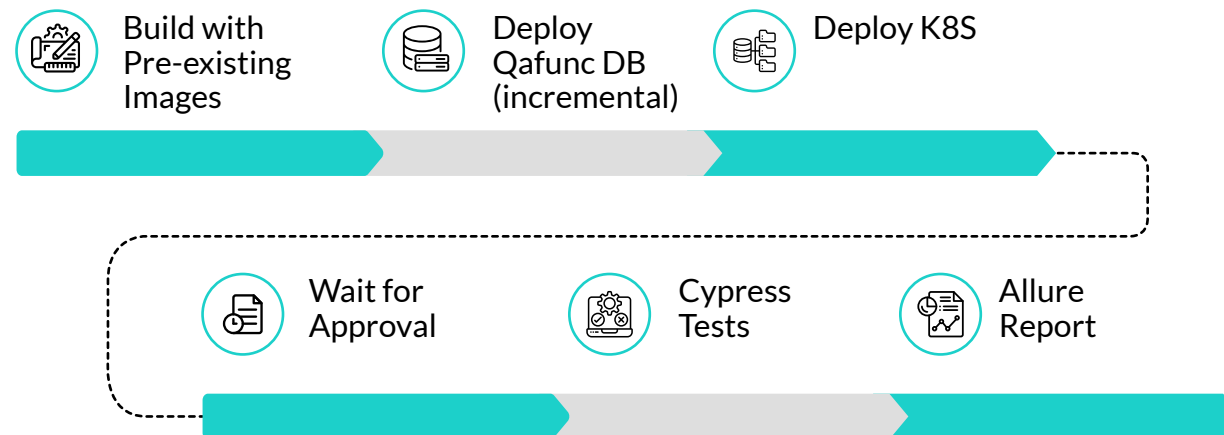
Recommended integrating Allure reports into the pipeline stage as this would provide deeper analytics in different formats.

# AZURE PIPELINE

Here's what our proposed build pipeline looks like:



Here's what our proposed deploy pipeline looks like:



## QA PROCESS



Consultants suggested adding the option 'Deferred' to the Automation Status drop down – making classification of test cases which are deferred for automation easier



Recommended grouping test cases by labels such as smoke, regression, etc



Suggested filling in the label fields with impact areas – which would be useful in finding areas with higher defect density



Recommended categorizing defects by:

- Phase of Detection
- Phase of Injection
- Business Component\Functionality - To Improve automation coverage in that module and to give more focus on testing
- Fix Type

## QA PROCESS



Proposed capturing quality metrics like:

- Test coverage (Manual/Automation)
- Defect Removal Efficiency (should be 0 for critical release)



Advised performing root cause analysis for all the post release defects



Proposed defining Cause-Effect matrix to:

- Enable picking the right set of regression cases, based on impact area
- To improve automation coverage
- To give more focus on testing



Proposed recommendations to improve API test coverage

# QA PROCESS

## A snapshot of defect details

QA root causes	Dev root causes	Fix type	Defect type/category	Defect status
Configuration	Enhancement	Code fix	Automation data issue	Deferred
Deployment issue	Exists in release checklist.  Deployment issue	Data issue	Automation framework/API issue	Fix in progress
Missed Requirement In FRD	Gap in understanding	Deployment	Automation script issue	FRD Update Pending

## TECH STACK





ZUCI GIVES YOUR TEAM QA SUPERPOWERS

SO, YOU CAN SPEND TIME BUILDING YOUR PRODUCT,  
WITHOUT WORRYING ABOUT RELEASE SCHEDULES

30-min free consultation →



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