Project Overview



Schnelltest

We as Qnit 's Tosca experts are focused on up-to-date, effective and reliable testing. We enhance and put together our know-how to reduce the unwanted wastes through the QA process via test automation. We believe on what we do.

Schnelltest by Qnit

ASQF TEST AUTOMATION CHALLENGE- FINAL TEST CONCEPT

- 1 Team Introduction
- 2 SUTAnalysis
- 3 Test Concept
- 4 QSA

Schnelltest by Qnit®



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TEST SPECIALIST
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SUT Analysis

LOGIN & DASHBOARD & SEARCH

Sign up and login

Project overview

Recent activities

Search by criteria

APPS

Navigation to Cross Browser Testing (Test Lab)
Selenium Testing

PROFILE

Edit User Settings Create API Key About

TEST LAB

Test runs

Visual Status

Test sessions

Templates

Export test report

DEVICES

Deploy Desktop Slot
Deploy Public Device Slot
Manage reservations
Manage and use devices
Add App&Packages



TEST CONCEPT PART I DESCRIPTION

Our project focuses on automated testing of the SUT by Tricentis Tosca through module based testing.

- Team: Schnelltest by Qnit
- Version 1.0
- Status : in progress
- Scope: Automated Testing of SUT
- Test object : Webmate Demo Environment
- References: ISO/IEC/IEEE 29119 Software and systems engineering Software testing, ISTQB,
 Tosca Best Practices



TEST CONCEPT PART II TEST STRATEGY

- Test levels: This test project focuses on system acceptance tests.
- Test types: Basic functionalities of the SUT is tested through Tricentis Tosca tool, with which the focus lies on automated functional tests. Non-functional tests such as Security, Accessibility etc. are not taken into consideration.
 - Non-functional tests that are included indirectly

Quality Characteristic	Subcategory	Testing Strategy
Efficiency	Time Behavior	Limited (implicit) tests of SUT perfomance during manual exploratory testing
Portability	Adaptability	Tests are executed on different devices and different OS versions
Portability	Installabilty	Device/Desktop deployments and adding an App is tested



Big part of our goals are achieved

- Functional tests that are included
 - Positive and negative test scenarios
 - Error cases
 - Cross browser testing
 - Using different test variables
 - Verification of existence and functioning of elements
 - Verification of navigation behavior
 - Verification of download and export behaviors
 - Deployment, use, release, and reset of devices
 - Simultaneously test of more than one user
 - Randomized device selection
 - Create different issue types and send test emails



Our Test Approach with Tosca

TEST CONCEPT PART III AUTOMATION TEST APPROACH

scan of each page using desired identifiers visible all the time easy to maintain

TEST CASES

grouped based on scenarios

can be linked to a data set (test design) - *Template*

configuration parameters

reusable test step blocks (Library)

TEST DESIGN

design sheet of variables

attributes and instances

link with template

create combinations

results with details linked issues automatic reporting

TEST CONCEPT PART IV

- Assumptions
 - SUT to be all the time available and well functioning
 - Provided information and device list enables good coverage of the system
- Constraints
 - To be tested devices and versions are limited as provided as a set (RISK)
 - Project time ends on Friday 14th of October 2022 by 11 am. → aka Project Endtime
 - No code expected to be submitted since Tosca provides scriptless testing. Therefore, Selenium Sessions part will only be tested partly. (RISK)
 - Image elements can only be verified visually and through exploratory testing.

Design and creation of test cases, identifying reusable modules, dynamic values and verifications, automation, execution, 4-eyes principle reviews, recovery scenario, versioning, live recording, reporting, sharing, brainstorming and next steps.

TEST CONCEPT PART V

RESULTS: TEST RUNS, METRICS AND EVALUATION CRITERIA

Numbers

22

number of automated test cases

52

number of planned test cases

42%

test automation coverage



- Prioritization of the test scenarios (High to Low)
 - Access Device (Mobile + Desktop)
 - Test Login (Cross Browser)
 - Add App&Packages
 - Public Device Deployment
 - Desktop Device Deployment
 - Recent test runs- Navigate to a test session
 - Test Lab Export the test report as csv
 - Device Reservation
 - Test Lab Verify Test Runs Page

DEVICES

Deploy Desktop Slot
Deploy Public Device Slot
Manage reservations
Manage and use devices
Add App&Packages

LOGIN & DASHBOARD & SEARCH

Sign up and login

TEST LAB

Test runs

Test sessions

Export test report



- Prioritization of the test scenarios (High to Low) and their status
 - Access Device (Mobile + Desktop) -> Automated
 - Test Login (Cross Browser) -> Automated
 - Add App&Packages —> Issue
 - Public Device Deployment —> Automated
 - Desktop Device Deployment —> Automated
 - Recent test runs- Navigate to a test session —> Automated
 - Test Lab Export the test report as csv -> In Progress
 - Device Reservation —> Automated
 - Test Lab Verify Test Runs Page -> Open

Numbers with Impact

6

number of automated test cases considered with the highest business value 9

number of planned test cases considered with the highest business value 67%

test automation coverage of the highest business value Bug Prioritization / Defect Severity

Criticality	Description	
Highest Importance	Serious discrepancy, stops release(going live), no workaround available, every bug of this category has to be fixed before release	
Important	Functional discrepancy, hinders the release, should be fixed as soon as possible, release with a bug of this category has to be reasoned	
Normal	Functional discrepancy, does not hinder release, workaround available, should be fixed	
Minor	No functional discrepancy (e.g. design, layout, typos), may optionally be fixed before release	

Bugs found during automated test runs or exploratory testing

See issues attachment from Tosca.

TEST CONCEPT PART VI RESULTS

Outcomes

- Test automation of the SUT is possible, but the SUT can be improved for easier automation (examples would be adding more automation ids, table structures)
- Most important (see priorities) test cases are having issues. Based on the set up we have
 worked at (limited device offering, disabled login and sign up processes, issues during adding
 a package) we would suggest to reconsider the processes on the SUT, webmate by Testfabrik
 with a user, in other words "acceptance test" perspective.
- SUT is not ready to go live
- Some information pop ups and navigation scenarios for the user would add a great value here

- Possible Next Steps
 - Connecting to common repository and to github for automatic versioning
 - Focus also on the not tested parts
 - Bug retests, evaluation together with responsibles
 - Test concept enhancements (test start, completion and suspension criterias, test data)
 - Increasing automation coverage and addind more clean-up scenarios
 - Define more risks about the project

- Last Remarks / Feedback
 - Differentiation between system behavior (because of limitations) and bugs were unclear (Expected Results)
 - List structures could be enhanced (might be Tosca specific in that case customization would be the solution)
 - Device management error that does not provide any evidence of its origin. Error messages must continue to be adjusted so that users understand what is going on.

PROVIDED DOCUMENTATIONS

Test case export (with steps) as PDF
Test execution export (with steps) as PDF
Issues export as PDF
Demo test case execution video

github public repository link: https://github.com/beyzaozuzcanqnit/ASQF-Schnelltest





nankyou

