Software All-Encompassing QA Test Project

Department Of Software QA

QA File for kariyer.baykartech.com, file includes Automation and Manual tests.
Written by Berkant Yüksektepe. My area of expertise is Test Automation, but I still performed it in manual testing for some test cases that could not be performed in Automation Tests.

Automation tests are written with Robot Framework @SeleniumLibrary in Python environment. You can find the source code links at the end of the document. Automated tests are Designed for be Easy-To-Read, Easy-To-Maintain, Easy-To-Understand.

User Guide

First of all you need a Python environment for run Robot Framework Automated tests. I use Python 3.9 and pip 21.2.4 with conda in this project. I also use PyCharm as IDE.

Clone the project from github use these commend in terminal:
"git clone https://github.com/Berkantyuks/QA-Test-Automation-Baykar.git" in to the directory you want.

After cloning repo you need install Chrome Driver for execute tests.
Go to this address: https://chromedriver.chromium.org/ and Download the driver that matches your chrome version. Move downloaded chrome driver to "c:/driver/(if not exists create a "driver" folder in c:/)" directory. In Windows go to Environment Variables then double click "Path" variable and click new button then type "c:/driver" and hit enter.

For install all requirements go to base project directory and type "pip install -r requirements.txt". That's it! Ready to run.

For Manual tests, its just hand writed Excel file. You'll need read test case by following step numbers.

Execute Automated Tests

Prepare variables after execute tests. You'll need to go Tests folder in base directory then click "Tests/Kariyer.Baykartech.robot" file. This file is main test suite for Baykar's Kariyer website.

```
*** Variables ***
${SITE_URL} =    https://kariyer.baykartech.com/    # [!] DO NOT CHANGE SITE URL [!]
${BROWSER} =    chrome    # add browser driver in env. path before first run
${RUN_LANG} =    tr       # "tr" or "en" [!] lowercase [!]
```

Do not change the variable SITE_URL because all tests are based on this url. If you want different browser for running tests, you can change BROWSER variable. RUN_LANG variable is Runtime Language. This site has a two language support. If you type "en" to this variable, the tests will take place on English pages. Type "tr" for Turkish pages. It's that simple.

Test execution commands. Now it's time to run, type in terminal these command: "robot -d results tests", this command will execute all test cases in Tests folder then saves results in Results directory. You can use tags to run only one test case.

```
*** Test Cases ***
Visitor should be able enter site
    [Documentation]    All visitors should be able enter site
    [Tags]    Smoke    Common
    Open Website    ${SITE_URL}${RUN_LANG}
    Common.Verify Page Loaded    ${RUN_LANG}
```

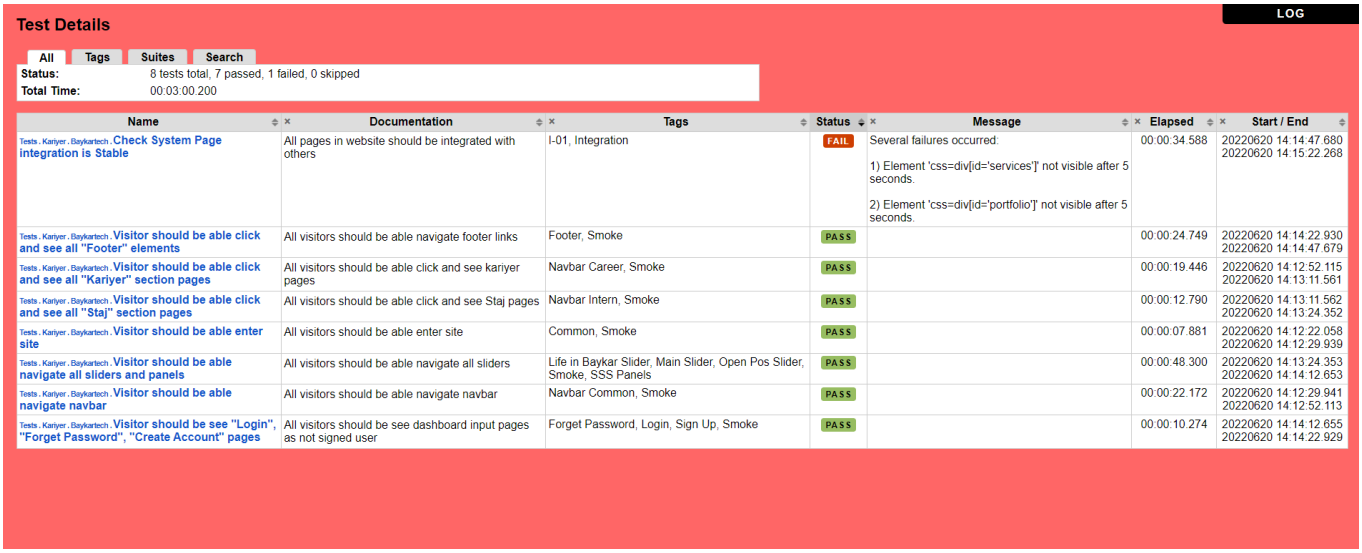
Let's take the test case above as an example. Smoke and Common tags are defined this case. If you write this command in terminal: " robot -d results -i "Common" tests " it just run Common tagged test case in Tests folder. Or execute a test by case name, in terminal: " robot -d results -t "Visitor should be able enter site" tests " its runs by test name.

Automated Test Results

Let's see tests results. Test results are saved in the Results folder. These are divided into two as Report and Log. The report file gives brief information about the test results. The log file, provides every detail about the tests performed.

```
==============================================================================
Tests                                                                 | FAIL |
8 tests, 7 passed, 1 failed
==============================================================================
```

After execution, terminal says 8 Tests we have, 7 passed, 1 failed. Let's take a closer look, starting with the report file.



Test Details

LOG

All | Tags | Suites | Search

Status: 8 tests total, 7 passed, 1 failed, 0 skipped
Total Time: 00:03:00.200

Name	Documentation	Tags	Status	Message	Elapsed	Start / End
Tests . Kariyer . Baykartech . **Check System Page integration is Stable**	All pages in website should be integrated with others	I-01, Integration	FAIL	Several failures occurred: 1) Element 'css=div[id='services']' not visible after 5 seconds. 2) Element 'css=div[id='portfolio']' not visible after 5 seconds.	00:00:34.588	20220620 14:14:47.680 20220620 14:15:22.268
Tests . Kariyer . Baykartech . **Visitor should be able click and see all "Footer" elements**	All visitors should be able navigate footer links	Footer, Smoke	PASS		00:00:24.749	20220620 14:14:22.930 20220620 14:14:47.679
Tests . Kariyer . Baykartech . **Visitor should be able click and see all "Kariyer" section pages**	All visitors should be able click and see kariyer pages	Navbar Career, Smoke	PASS		00:00:19.446	20220620 14:12:52.115 20220620 14:13:11.561
Tests . Kariyer . Baykartech . **Visitor should be able click and see all "Staj" section pages**	All visitors should be able click and see Staj pages	Navbar Intern, Smoke	PASS		00:00:12.790	20220620 14:13:11.562 20220620 14:13:24.352
Tests . Kariyer . Baykartech . **Visitor should be able enter site**	All visitors should be able enter site	Common, Smoke	PASS		00:00:07.881	20220620 14:12:22.058 20220620 14:12:29.939
Tests . Kariyer . Baykartech . **Visitor should be able navigate all sliders and panels**	All visitors should be able navigate all sliders	Life in Baykar Slider, Main Slider, Open Pos Slider, Smoke, SSS Panels	PASS		00:00:48.300	20220620 14:13:24.353 20220620 14:14:12.653
Tests . Kariyer . Baykartech . **Visitor should be able navigate navbar**	All visitors should be able navigate navbar	Navbar Common, Smoke	PASS		00:00:22.172	20220620 14:12:29.941 20220620 14:12:52.113
Tests . Kariyer . Baykartech . **Visitor should be see "Login", "Forget Password", "Create Account" pages**	All visitors should be see dashboard input pages as not signed user	Forget Password, Login, Sign Up, Smoke	PASS		00:00:10.274	20220620 14:14:12.655 20220620 14:14:22.929

As you can see the report page is red. This happens because it failed a test. Integration tests are failed. This fail is not caused by automation. There are some problems in the site. In addition, we see that all other smoke tests have passed. It shows that simple but important areas of this site are fully operational. Let's look at the log file to dig deeper into the fail.

Automated Test Results

You can find Automated test log file in Results folder. The image below is taken from this file.

Tests Log

Generated
20220620 14:15:22 UTC+03:00
18 minutes 23 seconds ago

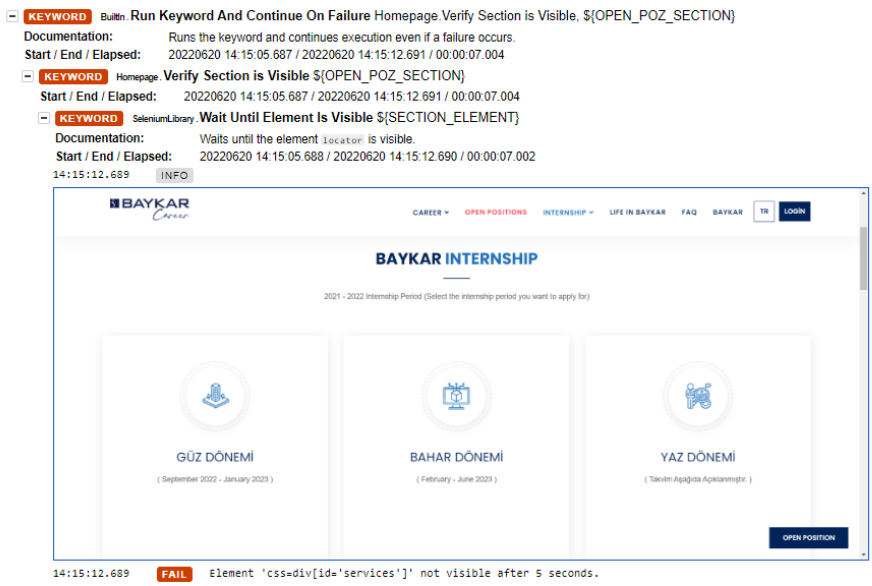
Test Statistics

Total Statistics	Total	Pass	Fail	Skip	Elapsed	Pass / Fail / Skip
All Tests	8	7	1	0	00:03:00	

Statistics by Tag	Total	Pass	Fail	Skip	Elapsed	Pass / Fail / Skip
Common	1	1	0	0	00:00:08	
Footer	1	1	0	0	00:00:25	
Forget Password	1	1	0	0	00:00:10	
I-01	1	0	1	0	00:00:35	
Integration	1	0	1	0	00:00:35	
Life in Baykar Slider	1	1	0	0	00:00:48	
Login	1	1	0	0	00:00:10	
Main Slider	1	1	0	0	00:00:48	
Navbar Career	1	1	0	0	00:00:19	
Navbar Common	1	1	0	0	00:00:22	
Navbar Intern	1	1	0	0	00:00:13	
Open Pos Slider	1	1	0	0	00:00:48	
Sign Up	1	1	0	0	00:00:10	
Smoke	7	7	0	0	00:02:26	
SSS Panels	1	1	0	0	00:00:48	

Statistics by Suite	Total	Pass	Fail	Skip	Elapsed	Pass / Fail / Skip
Tests	8	7	1	0	00:03:00	
Tests . Kariyer.Baykartech	8	7	1	0	00:03:00	

When we look at the log file, we see that the Integration test I-01 failed. Scroll down for more detail. I-01 is a tag number that makes it easy for me to separate test cases.



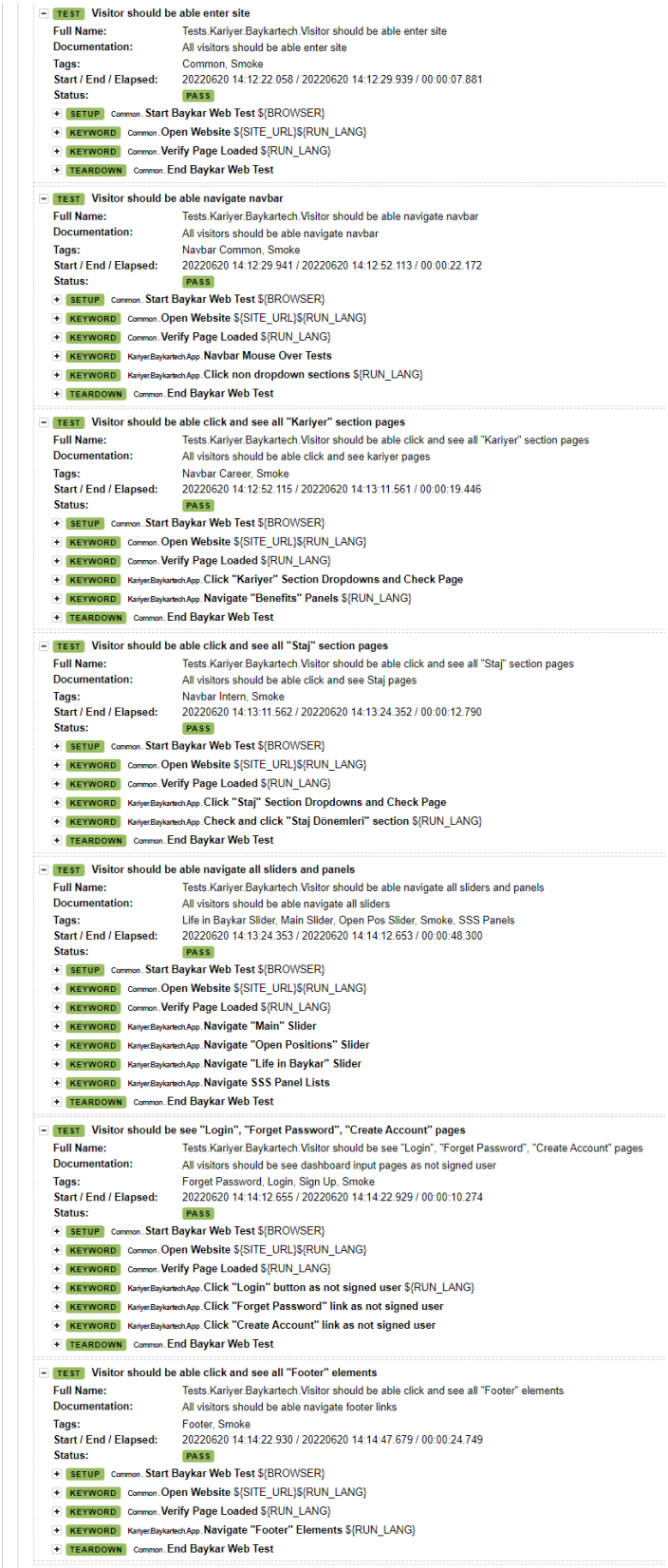
Robot clicks Open Positions navbar section in Internship page but "Open Positions" page/section does not appear in 5 seconds. The system fails the cross-page integration tests.

When we look at the screenshot, we confirm that the page is not opened.

We have same problem in the "Life In Baykar" section.

Automated Test Results

Here is the log for all passed tests. I can't fit it into the pdf because the file length is too long, go to the Results folder to browse log file.



Test Case 1: Visitor should be able enter Site. It's the simplest and most important test.

Test Case 2: Visitor should be able navigate navbar. It's checks navbar functionality.

Test Case 3: Visitor should be able click and see all "Kariyer(Career)" section pages. It's clicks and checks all career section links in navbar.

Tests Case 4: Visitor should be able click and see all "Staj(Intern)" section pages. It's clicks and checks all intern section links in navbar.

Test Case 5: Visitor should be able navigate all sliders and panels. This test includes all sliders and extendable panels in website. Clicks sliders based on the given max range value.

Test Case 6: Visitor should be able see "Login", "Forget Password", "Create Account" pages. Controls the functionality of the pages required for the Dashboard.

Test Case 7: Visitor should be able click and see all "Footer" elements. It's clicks and return homepage all footer elements by given language.

Manual Test Results

Manual tests are carried out by human hands and the records of the tests are kept with an Excel file. We have to manually perform tests that cannot be done with Automation, such as ReCAP validation. I also manually tested the most important of the smoke tests

Step #	Description
1	Visitor must enter site
2	Visitor must navigate navbar
3	Visitor should be able to switch language
4	Visitor switch Turkish language
5	Visitor should be able to click "Yerleşkelerimiz" dropdown
6	Visitor should be able to click "Sunduğumuz Faydalar" dropdown
7	Visitor should be able to click "Sosyal Alanlar" dropdown
8	Visitor should be able to click "İstatistik" dropdown
9	Visitor should be able to click "Açık Pozisyonlar" navbar button
10	Visitor should be able to click "Açık Pozisyonlar" navbar button in homepage
11	Visitor should be able to click "Staj Dönemleri" dropdown
12	Visitor should be able to click "Staj Takvimi" dropdown
13	Visitor should be able to click "Staj SSS" dropdown
14	Visitor should be able to click "Baykar'da Yaşam" navbar button
15	Visitor should be able to click "Baykar'da Yaşam" navbar button in homepage
16	Visitor should be able to click "S.S.S" navbar button
17	Visitor should be able to click "BAYKAR" navbar button
18	Homepage main slider must be show correct image and text
19	Visitor Should be able confirm reCAP, fill and send contact form
20	Check four "SSS" Panels in Homepage
21	Click all footer links and check it shows correct page
22	Homepage "Açık Pozisyonlar" slider must be show correct element
23	Click all "Açık Pozisyonlar" slider elements
24	Click "Tüm Açık Pozisyonlar" button
25	"Baykarda Yaşam" slider should be have clicable image
26	Sign-In button should be open dashboard sign-in page
27	Forget password link should be open forget password page
28	Create account link should be open create account page
29	User should be able login dashboard
File Info	**This is a MANUAL Test File, for more complex tests, see Automated Tests**
	Last Run 6/20/2022

Manual Test Results

Expected Result
Show kariyer.baykar homepage
Show dropdown menus
Show English homepage
Show Turkish homepage
Show "Yerleşkelerimiz" page/section
Show "Sunduğumuz Faydalar" page/section
Show "Sosyal Alanlar" page/section
Show "İstatistik" page/section
Show "Açık Pozisyonlar" page/section
Show "Açık Pozisyonlar" page/section
Show "Staj Dönemleri" page/section
Show "Staj Takvimi" page/section
Show "Staj SSS" page/section
Show "Baykar'da Yaşam" page/section
Show "Baykar'da Yaşam" page/section
Show "S.S.S" page/section
Open baykartech.com in new tab
Main slider show correct text and image

Show pop up message for success and send email to user for confirm

Show correct faq text by clicked header
Open expected link by link name
Show correct element
Open correct position by clicked element
Open Application page
Show zoomed image by clicked element
Open Baykar Kariyer login page
Open Baykar Kariyer forget password page
Open Baykar Kariyer create account page
Open Baykar Kariyer Dashboard after login

Manual Test Results

Test Data
https://kariyer.baykartech.com/tr/

NameSurname=Berkant Yüksektepe,email=byxxxxx@gmail.com, Phone=05436XXXXXX, Message=Bu mesaj Baykar Kariyer sayfası için yapılan manuel testlerde, test case olarak kullanılmak ve manuel sistem testlerini gerçekleştirmek için gönderilmiştir. Mesajı dikkate almayınız.

Email=byxxxxx@gmail.com, Password=xxxxxxxxx

Manual Test Results

Actual Result	Execution Status
Homepage opens	PASS
shows all dropdowns	PASS
English homepage opens	PASS
Turkish homepage opens	PASS
Kariyer page opens and scrolls "Yerleşkelerimiz" section	PASS
Scrolls "Yerleşkelerimiz" section	PASS
Scrolls "Sosyal Alanlar" section	PASS
Scrolls "İstatistik" section	PASS
Homepage opens and shows top of page	FAIL
Scrolls "Açık Pozisyonlar" section	PASS
Staj page opens and scrolls "Staj Dönemleri" section	PASS
scrolls "Staj Takvimi" section	PASS
scrolls "Staj SSS" section	PASS
Homepage opens and shows top of page	FAIL
Scrolls "Baykar'da Yaşam" section	PASS
Scrolls "S.S.S" section	PASS
Opens baykartech.com in new tab	PASS
shows correct text and image	PASS
Show pop up message for success and send email to user for confirm	PASS
Shows correct faq text by header	PASS
Shows correct page by link name	PASS
Shows Correct element	PASS
All elements shows correct page by element	PASS
Application page opens	PASS
Shows zoomed image and slides	PASS
Opens Baykar Kariyer login page	PASS
Opens Baykar Kariyer forget password page	PASS
Opens Baykar Kariyer forget create account page	PASS
Opens Baykar Kariyer Dashboard page	PASS

Manual Test Results

Execution Start Page	Tags
Homepage	Smoke
Homepage	Smoke
Homepage	Smoke
Homepage	Smoke
Homepage	Smoke
Career	Smoke
Career	Smoke
Career	Smoke
Career	Smoke
Homepage	Smoke
Homepage	Smoke
Intern	Smoke
Intern	Smoke
Intern	Smoke
Homepage	Smoke
Homepage	Smoke
Homepage	Smoke
Homepage	Intage
Homepage	Smoke
Homepage	Smoke
Homepage	Smoke
Homepage	Smoke
Homepage	Smoke
Homepage	Smoke
Homepage	Smoke
Homepage	Smoke
Sign-In	Smoke
Forget-Password	Smoke
Sign-In	Smoke

QA: General Opinion

For kariyer.baykartech.com, When we look at all the tests carried out, I can say that all the accessible and vital systems of the site are in good working condition.

However, there are problems with integration and language setting. Currently, users may have problems switching from one page of the site to another. Users who want to use a foreign language may encounter texts/articles in different languages.

page load speeds are moderate, they can be made faster with optimizations. Slowest: Career page. Fastest: Sign-In page.

Reduce Image Sizes in Career page. "Keşan Flight Training and Test Center" image size is 8,8MB. "Çorlu Flight Training and Test Center" image size is 5,9MB.

Oluşturulan boyut:	547 × 365 px
Oluşturulan en boy oranı:	547:365
Yerleşik boyut:	5472 × 3648 px
Yerleşik en boy oranı:	3:2
Dosya boyutu:	8.8 MB
Mevcut kaynak:	https://cdnik.baykartech.com/media/upload/userFormUpload/SGVIkQIzBX4GMY8Ggx1YAj3moyWjdHDBJPG

Oluşturulan boyut:	547 × 308 px
Oluşturulan en boy oranı:	547:308
Yerleşik boyut:	5472 × 3078 px
Yerleşik en boy oranı:	16:9
Dosya boyutu:	5.9 MB
Mevcut kaynak:	https://cdnik.baykartech.com/media/upload/userFormUpload/J97DePHe7miaqF1QIuuMGdhRgKycOOD1JPG

Site design is user friendly, There is no sudden contrast color change in images and vectors. Pictures are carefully selected, vectors are designed in harmony with the brand and its products.

Page loader can be made more compatible with the brand. Like the spinning Bayraktar drone animation etc.

QA: Rating

The Last Step: QA Rating for kariyer.baykartech.com, Page and overall system scoring by Berkant Yüksektepe.

Design: A+

Color Compatibility: A+

Cross-Page Integration: F-

Page Load Speed: C+

Sign-In Required Pages: A+

True Language Support: B+

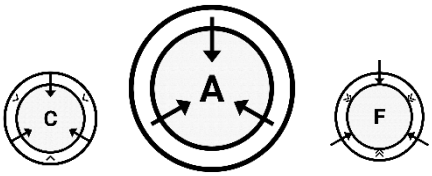
Animations: A-

Easy-To-Use: A+

Overall Score

Easy to use and understand, developed for the purpose.
It has some issues that do not affect general use.

B+



Test Classification Mark

A Class Mark Given for this website, it's means:
Uncomplicated, QA Friendly, Easy to Test and fit for purpose.

Project Files

https://github.com/Berkantyuks/QA-Test-Automation-Baykar