Quality Engineer Quiz - Rev 2

Summary of the QA Engineer test

The QA engineer test evaluates candidates on the key skills required to be an effective software QA engineer. It helps us to understand how you will apply your knowledge effectively in a team setting and manage projects to achieve results.

1. What is "bug severity"?

SELECT ONLY ONE

- ☒ The Degree of impact a defect has on the system
- ☐ The order in Which a defect should be fixed
- ☐ The likelihood and the impact of the bug
- ☐ The cost of the impact combined with the cost to resolve the consequences of the impact

2. Which of the following statements is essential to communicate successfully and maintain constructive relations with developers, when there is a conflict over the prioritisation of a defect?

- ☐ Escalate the issue to Human Resources and stress the importance of mutual respect
- ☐ Communicate in a setting with senior management to ensure everyone understands
- ☐ Convince the developer to accept the accountability for the mistake
- ☒ Remind them of the common goal of creating quality systems

3. What is the typical objective of a Unit test?

SELECT ONLY ONE OPTION

- ☒ To validate that each unit of the software performs as designed
- ☐ To test all branches of the software program once
- ☐ To build confidence in the quality of interfaces
- ☐ To verify that the conditions match the product requirements

4. Legacy application Automation

You have been automating a legacy application that provides critical functionality to the business.

An update to the legacy system has been approved and the developers plan to use third party software to provide the new functionality. The third party software has already been tested but the interface between the existing software and the new software is problematic. Your existing test automation needs to be extended to test the interface between these two products.

How should you approach implementing the best automation solution?

SELECT ONLY ONE OPTION

- ☐ Develop test automation for the entire system including the legacy and third party applications
- ☒ Investigate if automation is possible via the APIs used to interface with the third party software
- ☐ Develop new automation to test via the GUI of the third party software
- ☐ Investigate if automation can be implemented using the CLI to replace the existing GUI automation

5. Automation new Features

You are including new features in your team's current automated solution.

Which steps would you take to ensure there is no adverse effect in the existing functionalities?

SELECT ONLY ONE OPTION

- ☐

☒ Compare the new and old automated solution versions and assess the impact of any differences

☐ Statically check to ensure procedures for the new and old automated solutions versions are identical

☐ Ensure the same stubs and drivers are used in the new version solution

☐ Use System release notes as a way to ensure the new version solution will operate correctly

6. Which tools you use for API Testing?

SEVERAL OPTIONS CAN BE SELECTED

☒ Soap UI

☒ BDD

☒ Postman

☐ Karate DSL

☒ Python

☒ Node JS

7. Defining Test Scenarios

Let's imagine you are assigned to test the Facebook application. Your goal is to test a 'publishing a status update' feature. How would you define your test scenario(s) and acceptance criteria? Please present the simple, clear and concise format.

Answer: I would define the test scenarios as the following:

Feature: Facebook Status Update

Scenario: User publishes a status update

Given the user logs into their facebook account → *AC: the log in page is accessible, user can log in after data input*

When user arrives on landing page → *AC: the user can access the landing (home) page and see basic functions*

And user updates "What are you thinking User?" → *AC: Pop up is visible and user can input data as well as attachments*

Then user updates their status → *AC: User can go into their profile and see latest post, URL is functional and text matches previous step*

8. Defining Test Data

In the problem above, how would you define test data against which you could run your scenarios? What are the dependencies? How can you manage the test data so your tests can be run offline? How about running the test online (e.g. against live web site)? What's your approach?

Answer:

Test data can be stored in local databases or by files depending on their size, like JSON or CSV files which the tests can access. By having a defined set of data it ensures consistency on the testing.

About testing offline mock servers can be used to simulate the API responses that would need online connection. About running tests online to test against live web site (UI) Live API's can be used for e2e testing.

9. Test Automation

Web Page Challenge

On the test web site (https://www.globalsqa.com/angularJs-protractor/BankingProject/#/login) , using your preferred automation framework Selenium or Cypress or Playwright and your preferred programming language Python or Java Script or Type Script etc.) create some executable cucumber feature spec (s)

Start in the Home Page https://www.globalsqa.com/angularJs-protractor/BankingProject/#/login
1. Choose "**Bank Manager Login**".
2. Choose "**Add Customer**".
3. Fill the form for
   a. First Name
   b. Last Name
   c. Post Code
   d. Click **"Add Customer"**.
4. Go to "**Customers**" Tab

5. **Validate** that the new customer has been added successfully

6. **Delete** the newly added customer

7. **Validate** that the customer has been successfully deleted

We highly value Best Practices implementation, project structure, documented code and logical thinking as part of the exercise.

NOTE: The following are the skills that we assess:
1. Ability to understand a feature and break it down.
2. Ability to define clear scenarios and acceptance criteria.
3. Experience with setting up test data and resolving dependencies on external services.
4. Understanding of the Cucumber framework
5. Expertise automating tests for JavaScript/HTML based applications.
6. Create simple, effective and working solutions.

Important notes:
> All notes or comments must be written in English.
> If you have any doubts or concerns, please let us know your questions will be welcome

Solution can be found under:

https://github.com/boyer97/BankingProject_Challenge