

# Assignment for Test Automation Engineer

## Task 1.

This assignment is to evaluate your knowledge of REST APIs and your test automation skills.

The task is to create a number of automated tests that cover the CRUD commands and add one or two extra cases (your choice). As a system under test, we recommend using this website: <http://httpbin.org>  
You don't have to do exhaustive testing of the APIs.

Make sure you give a detailed description of your tests and prerequisites to run them. It should be easy to execute the tests without a complex setup procedure. If the setup is too complex - please automate it. (For example, installing Java is not considered to be complex, but it is complex to manually download all the dependencies required to run the tests).

You can use the programming language and test framework that you feel more comfortable with (but it needs to be free, so we will be able to run/validate it without need to purchase the license).

When the assessment is completed, please push your solution to GitHub/Bitbucket/etc and send a link to us.

Please don't hesitate to contact us in case you have any questions.

## Task 2.

Answer the questions below. Write your answers in a file answers.txt and put it into the same repository as the result of task 1.

1. What test design techniques would you use to test a feature which grants user access to certain resources depending on their age? For example: if a user is older than XX then access granted.

2. Given two web services: A and B. Service A is calling service B and expects a response with HTTP code 200 (OK).

Sometimes due to internal problems in service B, it responds with HTTP code 500 (Internal server error).

Your task is to test that service A handles this 500 response gracefully (doesn't crash and logs the error).

How would you do it?

3. Read the description of the following service and solve the assignment:

## The Service Under Test

Transfer-Service is a service with a REST API that processes money transfers. To validate account information, Transfer-Service must interact with Account-Guard-Service, which is a third-party platform

## Two Scenarios Must be Automated:

**SCENARIO:** account information is valid, and transaction is accepted.

**GIVEN:** a customer making a transfer from account-A to account-B.

**WHEN:** Transfer-Service calls Account-Guard-Service to validate the account information.

**THEN:** Account-Guard-Service returns HTTP-200.

**AND:** Transfer-Service accepts the transaction.

**SCENARIO:** account information is invalid, and transaction is rejected.

**GIVEN:** a customer making a transfer from account-A to account-B.

**WHEN:** Transfer-Service calls Account-Guard-Service to validate the account information.

**THEN:** Account-Guard-Service returns HTTP-403.

**AND:** Transfer-Service rejects the transaction.

## The Problem:

The development team has a CI pipeline that runs at any time whenever a change is made in Transfer-Service. However, the Account-Guard-Service is only available for testing every day from 1:00am to 3:00am.

## Assignment:

After considering the problem described above, which of the solutions proposed below do you consider the most appropriate to approach the automation of the scenarios above?

- a- Test **Transfer-Service** against a mock of **Account-Guard-Service** and do not use the real **Account-Guard-Service** at all as it must be properly tested by its provider.
- b- Do not automate this case as it is dependent on an external service and may fail due to uncontrollable circumstances.
- c- Test **Transfer-Service** using a mock of **Account-Guard-Service** during the normal CI phase and add a **scheduled job** that runs between 1:00 am to 3:00 am to test against the real **Account-Guard-Service**.
- d- Add a **scheduled job** that runs between 1:00 am to 3:00 am to test against the real **Account-Guard-Service** and exclude these tests completely from the normal CI pipeline.