

QE Tech Assessment for SDET

Contents

Introduction	1
Tasks.....	1
Target Deliverables	1
Functional Requirements.....	2
001 UI Spec	2
002 API Spec and Schema	2
003 Data load and transformation.....	3

Introduction

The assignment aims to assess your test design and test automation skills. Refer the requirements and prepare target deliverable. The deliverables must cover all the requirements. Be creative in test design & coverage to reveal your knowledge and experience.

Tasks

- Prepare test cases for data management application
- Automate the tests

Target Deliverables

- **Test cases**, with test steps, in excel spreadsheet
- Automated test suite
 - Programming language – either JAVA or Python depending on JD
 - For JAVA
 - Maven with pom file
 - Cucumber framework
 - For Python
 - Pip – requirements file
 - Behave framework
 - **ReadMe file** with instructions to
 - Setup
 - run the tests
 - understand report
 - Test suite must be uploaded into a **github repo**
- For REQ-003,
 - use your own sample input and output files matching the requirement specs.
 - Automated tests can cover only the validation of output file against the input files.

Functional Requirements

The Functional specifications of the data management application is below. This includes the specs for GUI interface, api interface and file-processing layers.

Application URL: <https://reqres.in/>.

001 UI Spec

- 001A - Home page
 - should list different request types, end points
 - should display 'sample request and response' details after selecting a specific option.
 - For e.g.: Selecting "GET SINGLE USER NOT FOUND" should show
 - Request `"/api/users/23"`
 - Response 404 {}
 - Should contain a button to navigate to support page
- 001B - Support page
 - Should list options for one-time & monthly support
 - Should provide Upgrade details

002 API Spec and Schema

Endpoint	Description	Request type	Payload	Status Code	Sample response
/api/users/2	Get user by id	GET		200	<pre>{ "data": { "id": 2, "email": "janet.weaver@reqres.in", "first_name": "Janet", "last_name": "Weaver", "avatar": "https://reqres.in/img/faces " }, "support": { "url": "https://reqres.in ", "text": "NA" } }</pre>
/api/users	Create user	POST	<pre>{ "name": "morpheus", "job": "leader" }</pre>	201	<pre>{ "name": "morpheus", "job": "leader", "id": "31", "createdAt": "2023-02-20T03:25:37.765Z" }</pre>

003 Data load and transformation

The application periodically processes input files from “/app/in” and generates an output file in “app/out”

- Input files 1 and 2 should be placed in “/app/in” in Linux box where application is hosted.
- Application loads input files into database, transform data, generate report file in “/app/out”

Input File 1			Input File 2	
File Name	InstrumentDetails.csv		File Name	PositionDetails.csv
Column details			Column details	
ID	Primary ID		ID	Primary ID
Name	Instrument name		InstrumentID	Primary ID of Instrument file
ISIN	Unique Instrument Identifier		Quantity	Number of instruments in position
Unit Price	Unit price of instrument			

Output File	
File Name	PositionReport.csv
Column details	
ID	Primary ID
PositionID	Primary ID of position file
ISIN	Unique Instrument Identifier
Quantity	Number of instruments in position
Total Price	Quantity * Unit Price