Practical Coding Task - Automation Testing

Goal

The candidate is required to implement an <u>automated</u> testing suite for the following REST CRUD service and produce a test report with a list of defects.

- This service is known to have a few defects
- Some defects are only appearing occasionally - please repeat the tests multiple times
- Test report: please aim to provide sufficient details for developers to isolate and fix the defect
- Technologies to choose from:
    - Java / Serenity (optional) / Cucumber BDD / REST Assured (optional)
    - or Python unittest

Submitting the Solution

Please submit the following artefacts:

- Test report (summary and details)
- Automated testing solution (source code, configuration, BDD files, etc)

Books API

Read all books

Request

```
curl -u <user>:<password> http://77.102.250.113:17354/api/v1/books
```

Response

```
[
  {
    "id": 1,
    "name": "Clean Code: A Handbook of Agile Software Craftsmanship",
    "author": "Robert C. Martin",
    "publication": "Prentice Hall",
    "category": "Programming",
    "pages": 464,
    "price": 22
  },
  {
    "id": 2,
    "name": "Test Driven Development: By Example",
    "author": "Kent Beck",
    "publication": "Addison-Wesley Professional",
    "category": "Programming",
    "pages": 240,
    "price": 29.26
  }
]
```

Read a particular book by ID

Request

```
curl -u <user>:<password> http://77.102.250.113:17354/api/v1/books/2
```

Response

```
{
  "id": 2,
  "name": "Test Driven Development: By Example",
  "author": "Kent Beck",
  "publication": "Addison-Wesley Professional",
  "category": "Programming",
  "pages": 240,
  "price": 29.26
}
```

Create a book

Request

```
curl --request POST \
     --user <user>:<password> \
     --header "Content-Type: application/json" \
     --data '{"name":"Refactoring: Improving the Design of Existing Code","author":"Martin Fowler","
publication":"Addison-Wesley Professional","category":"Programming","pages":448,"price":35.50}' \
     http://77.102.250.113:17354/api/v1/books
```

Response

```
{
  "id": 2,
  "name": "Test Driven Development: By Example",
  "author": "Kent Beck",
  "publication": "Addison-Wesley Professional",
  "category": "Programming",
  "pages": 240,
  "price": 29.26
}
```

Update a book

Request

```
curl --request PUT \
     --user <user>:<password> \
     --header "Content-Type: application/json" \
     --data '{"id":2,"name":"Test Driven Development: By Example","author":"Kent Beck","publication":"Addison-
Wesley Professional","category":"Programming","pages":240,"price":29.26}' \
     http://77.102.250.113:17354/api/v1/books/2
```

Response

```
{
  "id": 2,
  "name": "Test Driven Development: By Example",
  "author": "Kent Beck",
  "publication": "Addison-Wesley Professional",
  "category": "Programming",
  "pages": 240,
  "price": 29.26
}
```

Delete book

Request

```
curl -x DELETE -u <user>:<password> http://77.102.250.113:17354/api/v1/books/1
```

Response

```
{
  "id": 2,
  "name": "Test Driven Development: By Example",
  "author": "Kent Beck",
  "publication": "Addison-Wesley Professional",
  "category": "Programming",
  "pages": 240,
  "price": 29.26
}
```