

Testing report

Types of testing techniques	Used?
Unit tests	Yes
Integration tests	Yes
Smoke tests	Yes

Unit tests

For unit testing we have created 22 Junit tests for transaction files and login tokens based on 2 simple hardcoded strings representing a valid MT940 file and an invalid one that are parsed to a SWIFT message object

Tests for transaction files include:

- testing if an invalid file will be detected
- testing if a valid file will be correctly detected
- testing if the name of a file can be correctly extracted
- testing if we can change the name of a file
- testing if we get the correct opening balance
- testing if we have extracted the correct currency code
- testing if we get the correct closing balance
- testing if extracting the sender works
- testing if we get the right receiver
- testing if the correct number of transactions are transferred from the MT940 files
- testing if the reference number of a transaction is correct
- testing if we can extract the amount the transaction is for
- testing if we can get the balance after the transaction
- testing if the correct bank reference is taken out of the file
- testing if the correct transaction date is selected
- testing if the transaction id is correctly detected
- testing if the account owner's reference is correctly selected
- testing if fraud is correctly detected

Integration tests

For integration testing we decided to create a simulated user with Selenium

We used cucumber to write acceptance tests for our web application as it allows automation of functional validation in easily readable and understandable format to Business analysts, developers, testers, etc.

There are 3 tests for login:

- login without credentials
- login with correct credentials
- login with incorrect credentials

There is a test for trying to access a rest resource without undergoing login

There are 3 integration tests for front-end functionality of the data page which include logging in and uploading a valid MT940 file first and then:

- testing the expand function for a transaction
- testing the expand all function
- testing the search function

There are 4 integration tests for the statistics page which again include logging in and uploading a valid MT940 file first and then:

- 3 of them test if a selected transaction will be highlighted
- the last tests if when selecting 2 transactions they will be highlighted and the selected table will display information about them properly

There are 3 regression test which are basically integration tests but they will be done more often as they are needed to test if changes to the code are working correctly

- testing if deleting all transaction files will be correctly executed in the database
- testing if after uploading a valid MT940 file the data from it will be correctly displayed
- testing if after deleting a transaction file it will be removed from the database

@run

Feature: login

#testing login page features

@smoke

Scenario: login without credentials

Given i am on the "login" page

When i click login

Then i can not login

@smoke

Scenario: login with correct credentials

Given i am on the "login" page

And i enter the "correct" credentials

Then i successfully logged in

@smoke

Scenario: login with incorrect credentials

Given i am on the "login" page

And i enter the "incorrect" credentials

Then i can not login

@regression

Scenario: access rest resource without login

Given i am on the "login" page

And i am on the "upload" page

Then i will be prompted with unauthorized

@run

Feature: upload

#testing upload page features

Background: User is Logged In

Given i am on the "login" page

When i enter the "correct" credentials

Then i am logged in

@regression

Scenario: User deletes all files

Given i am on the "upload" page

And i click delete all button

Then all files will be deleted

@regression

Scenario: User uploads a valid MT940 file

Given i am on the "upload" page

When i upload "SWIFT_MT940_Standard_27May.940" file

Then i am prompted with data page of the "SWIFT_MT940_Standard_27May.940" file

@regression

Scenario: User deletes a specific transaction

Given i am on the "upload" page

And i delete the "1st file" file

Then the "1st file" should be deleted

@run

Feature: data

#testing data page features

Background: User is Logged In

Given i am on the "login" page

When i enter the "correct" credentials

Then i am logged in

And i am on the "upload" page

Then i upload "SWIFT_MT940_Standard_27May.940" file

Then i am prompted with data page of the "data" file

@integration

Scenario: User expands a transaction

Given i am on the "data" page

And i click on the "1st" transaction

Then the first transaction expands

@integration

Scenario: User expands all transactions

Given i am on the "data" page

And i click on the "Expand All" button

Then all transactions will expand

@integration

Scenario: User searches a keyword

Given i am on the "data" page

And i search for "interest" keyword

Then transactions will contain the "interest" keyword

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@run
Feature: statistics
  #testing statistics page features

  Background: User is Logged In
    Given i am on the "login" page
    When i enter the "correct" credentials
    Then i am logged in
    And i am on the "upload" page
    Then i upload "SWIFT_MT940_Standard_27May.940" file
    Then i am prompted with data page of the "data" file
    Then i click on the "statistics" button

  @integration
  Scenario: User selects the 1 Apr 2014 transaction
    Given i am on the "statistics" page
    And i select the transactions on "1 Apr 2014"
    Then the selection "tr[1]" turn blue

  @integration
  Scenario: User selects the 1 May 2014 transaction
    Given i am on the "statistics" page
    And i select the transactions on "1 May 2014"
    Then the selection "tr[2]" turn blue

  @integration
  Scenario: User selects the 2 May 2016 transaction
    Given i am on the "statistics" page
    And i select the transactions on "2 May 2016"
    Then the selection "tr[3]" turn blue

  @integration
  Scenario: User selects the 1 Apr 2014 and 1 May 2014 transaction
    Given i am on the "statistics" page
    And i select the transactions on "1 Apr 2014"
    And i select the transactions on "1 May 2014"
    Then the selections "tr[1]" and "tr[2]" turn blue
    Then the selected table will display information about "tr[1]" and "tr[2]" properly

  @ignore
  Scenario: User selects transactions between 1 Apr 2014 and 1 May 2014
    Given i am on the "statistics" page
    And i input the interval "1 Apr 2014" and "1 May 2014"
    Then the selections "tr[1]" and "tr[2]" turn blue

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