# COMP4004 Assignment 2 – Cucumber

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# **Traceability Matrix**

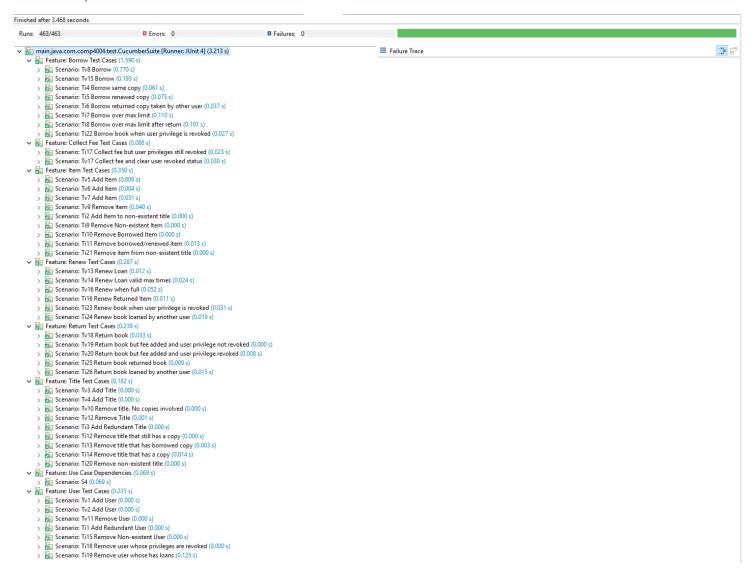
Feature/Scenario	Tv1	Tv2	Tv3	Tv4	Tv5	Tv6	Tv7	Tv8	Tv9	Tv10	Tv11	Tv12	Tv13	Tv14	Tv15	Tv16
Use Case Dependencies																
User Test Cases	X	X									X					
Title Test Cases			X	х						X		X				
Item Test Cases					х	X	х		х							
<b>Borrow Test Cases</b>								X							X	
Return Test Cases																
Renew Test Cases													Х	X		X
Collect Fee Test Cases																

Feature/Scenario	Tv17	Tv18	Tv19	Tv20	<b>S</b> 4	Ti1	Ti2	Ti3	Ti4	Ti5	Ti6	Ti7	Ti8	Ti9	Ti10	Ti11
Use Case Dependencies					х											
User Test Cases						X										
Title Test Cases								X								
Item Test Cases							X							X	X	X
<b>Borrow Test Cases</b>									X	X	X	X	X			
Return Test Cases		X	X	X												
Renew Test Cases																
Collect Fee Test Cases	X															

Feature/Scenario	Ti12	Ti13	Ti14	Ti15	Ti16	Ti17	Ti18	Ti19	Ti20	Ti21	Ti22	Ti23	Ti24	Ti25	Ti26
Use Case Dependencies															
User Test Cases				X			X	х							
Title Test Cases	X	X	X						X						
Item Test Cases										X					
<b>Borrow Test Cases</b>											X				
Return Test Cases														X	X
Renew Test Cases					X							X	X		
Collect Fee Test Cases						X									

#### **Test Cases**

<u>Features</u>: Use Case Dependencies, User Test Cases, Title Test Cases, Item Test Cases, Borrow Test Cases, Return Test Cases, Renew Test Cases, Collect Fee Test Cases



# Extra Test **invalid** paths of use cases

## Ti17 Collect fee but user privileges still revoked

Create user u1

Create title t1

Create copies 1 of t1

Have user u1 borrow copy1 of t1

Have user u1 return copy1 of t1 overdue

Collect partial fee for user u1 but not full fee

Attempt to have user u1 borrow copy1 of t1

# Ti18 Remove user whose privileges are revoked

Create user u1

Revoke user u1 privileges

Attempt to remove user u1

### Ti19 Remove user whose has loans

Create user u1

Create title t1

Create copies 1 of t1

Have user u1 borrow copy1 of t1

### Attempt to remove user u1

### Ti20 Remove non-existent title

Attempt to remove t1 (i.e. without having created it)

### Ti21 Remove item from non-existent title

Attempt to remove copy1 of t1 (i.e. without having created it)

## Ti22 Borrow book when user privilege is revoked

Create user u1

Revoke user u1 privileges

Create title t1

Create copies 1 of t1

Attempt to have user u1 borrow copy1 of t1

# Ti23 Renew book when user privilege is revoked

Create user u1

Create title t1

Create copies 1 of t1

Have user u1 borrow copy1 of t1

Revoke user u1 privileges

## Attempt to have user u1 renew copy1 of t1

## Ti24 Renew book loaned by another user

Create user u1 and u2

Create title t1

Create copies 1 of t1

Have user u1 borrow copy1 of t1

Attempt to have user u1 renew copy1 of t1

### Ti25 Return book returned book

Create user u1

Create title t1

Create copies 1 of t1

Have user u1 borrow copy1 of t1

Have user u1 return copy1 of t1

Attempt to have user u1 return copy1 of t1 again

# Ti26 Return book loaned by another user

Create user u1 and u2

Create title t1

Create copies 1 of t1

Have user u1 borrow copy1 of t1

Attempt to have user u2 return copy1 of t1

# Extra Test **valid** paths of use cases

### Tv17 Collect fee and clear user revoked status

Create user u1

Create title t1

Create copy 1 of t1

Have user u1 borrow copy1 of t1

Have user u1 return copy1 of t1 overdue

Collect full fee for user u1

Have user u1 borrow copy1 of t1

### Tv18 Return book

Create user u1

Create title t1

Create copy 1 of t1

Have user u1 borrow copy1 of t1

Have user u1 return copy1 of t1

## Tv19 Return book but fee added, and user privilege not revoked

Create user u1

Create title t1

Create copy 1 of t1

Have user u1 borrow copy1 of t1

Have user u1 return copy1 of t1 late

Ensure fees were applied to user u1

# Tv20 Return book but fee added, and user privilege revoked

Create user u1

Create title t1

Create copy 1 of t1

Have user u1 borrow copy1 of t1

Have user u1 return copy1 of t1 late

Ensure fees were applied to user u1 and privileges were revoked