

## Unit testing

The tests:

For this stage we will test the 'authorise', 'create personal details', 'read personal details' and 'amend personal details' functionalities of the program. For this, we will need to test:

- Whether or not the user is authorised to perform different actions depending on their position in the company
- Whether or not details can be read
- Whether or not documents can be created
- Whether or not details can be amended
- Checking amended details are updated in the database

Issues encountered:

Issue	Fix
The createPersonalDetails method is allowing to create records for employees that already exist. The system is expected to print an error message, but instead it continued prompting the user for details. This is a logical error and we suspect that it may be to do with the ordering of our switch statements.	Found that the checkExists() method was not being called in the right order. Fixed the order and it is working fine.
The appropriate actions are not executing when the user types in the corresponding numbers.	There were a few misspellings in the switch statement. Changed the spellings.
The system is prompting the user to amend details again like it is supposed to when the user cancels during the amendPersonalDetails() method, however this time the details are not being stored in the database when the user confirms the new changes.	Fixed. A Boolean value had not changed to allow the creation of a new record.

All tests have passed:

Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

YuconzProject src Yuconz\_project\_appTest

Run Yuconz\_project\_appTest



All 14 tests passed - 3s 571ms

Test Results	3s 571ms
Yuconz_project_appTest	3s 571ms
testInvalidLogin()	469ms
testValidLogout()	203ms
testValidLogin()	220ms
noLogin()	250ms
invalidAuthorisationCheck()	237ms
disallowedReadPersonalDetails()	235ms
validAmendPersonalDetails()	291ms
disallowedAmendPersonalDetails()	251ms
testInvalidLogout()	205ms
disallowedCreatePersonalDetails()	285ms
allowedAmendPersonalDetails()	239ms
validAuthorisationCheck()	203ms
allowedCreatePersonalDetails()	241ms
allowedReadPersonalDetails()	242ms

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"C:\Program Files\Java\jdk1.8.0_73\bin\java" ...
Mar 05, 2017 9:51:39 PM org.junit.platform.launcher.core.ServiceLoaderTestEngineRegistry loadTestEngines
INFO: Discovered TestEngines with IDs: [junit-jupiter]
Invalid login
Document has been created successfully
Valid logout
No user found, returning to login
Document has been created successfully
Valid login
Document has been created successfully
no login given
Document has been created successfully
invalid authorisation check
Document has been created successfully
invalid read personal details
Document has been created successfully
valid amend personal details
Document has been created successfully
valid amend personal details
Document has been created successfully
valid amend personal details
Document has been created successfully
invalid logout
No user found, returning to login
Document has been created successfully
invalid create personal details
Document has been created successfully
valid amend personal details
Staff No: 76
Name: John
Surname: Doe
Date Of Birth: 2014-10-20
Address: Test Road 1
Town/City: Testtown
County: Testcounty
Postcode: TEST 101
telephone Number: +447755443322
Mobile Number: +4400000000
Emergency Contact Name: Jane Doe
Emergency Contact Number: +447755443311

Document has been created successfully
valid authorisation check
Document has been created successfully
valid create personal details
Document has been created successfully
valid read personal details
Staff No: 79
Name: John
Surname: Doe
Date Of Birth: 2014-10-20
Address: Test Road 1
Town/City: Testtown
County: Testcounty
Postcode: TEST 101
telephone Number: +447755443322
Mobile Number: +4400000000
Emergency Contact Name: Jane Doe
Emergency Contact Number: +447755443311
```

The final iteration of the application for stage 4 passes all the JUnit tests from stage 3 and the present section and as such is ready for submission.