On each execution of the Java service ‘CreditCheckDelegate’ two variables are set. One is ‘creditScore’ which is an integer in range 200-1000 and the other is ‘creditRefer’ which is a Boolean.

The testing scope included checking whether the process variables could be set, as well as checking that the logic executes correctly depending on the result returned by ‘creditScore’. Also tested was the capability to assign a task to a user, completing it programmatically, and then verifying that the process has terminated. Verifying the logic flow depending on the result of ‘creditRefer’ is out of scope.

Tests were carried out using Mockito (Junit 5)

‘CheckCreditDelegateTest.java’ first creates an instance of class ‘CreditCheckDelegate’ and a mock class of ‘DelegateExecution’, this allows the process to run in a test environment.

The instance of ‘CreditCheckDelegate’ is then executed with the instance of ‘DelegateExecution’ as a parameter, starting the process.

If the process starts without throwing an error the code verifies that the variable ‘creditScore’ can be set to an integer. The variable ‘creditRefer’ is then set to a Boolean. If both setters succeed the test will pass.

In ‘ProcessUnitTest.java’ the first test checks whether the process is deployable, it is the same test which automatically runs during build time. Provided this passes the remaining two tests can be carried out.

‘testCurrentStatus’ gets a reference to the currently running process. This reference is then used to get the value of ‘creditScore’. It then verifies the conditional logic of the process. If ‘creditScore’ is less than 400 the process should be waiting at “Inform customer”. If it is between 400 and 600 the process should be waiting at “Call credit assessment”, and if it is 600 or above the process should be waiting at “Sell phone”.

‘testCompletionTask’ first gets a reference to the currently running process and gets the value of ‘creditScore’. The first task is assigned to a user and then resolved. If ‘creditScore’ is between 400 and 600 there is an additional task to complete so this is checked in the code, and this task is also assigned and resolved. Finally it is verified that the process has terminated.