| Functional tests  | Non-functional tests:  |
|---|--|
| Component testing, tests are designed based on how a component should calculate compound interest.  | Component testing, performance tests are designed to evaluate the number of CPU cycles required to perform a complex total interest calculation.                                   |
| Component integration testing, tests are designed based on how account information captured at the user interface is passed to the business logic.                        | Component integration testing, security tests are designed for buffer overflow vulnerabilities due to data passed from the user interface to the business logic.                   |
| System testing, tests are designed based on how account holders can apply for a line of credit on their checking accounts.  | System testing, portability tests are designed to check whether the presentation layer works on all supported browsers and mobile devices.   |
| System integration testing, tests are designed based on how the system uses an external microservice to check an account holder's credit score.                           | System integration testing, reliability tests are designed to evaluate system robustness if the credit score microservice fails to respond.  |
| Acceptance testing, tests are designed based on how the banker handles approving or declining a credit application.   | Acceptance testing, usability tests are designed to evaluate the accessibility of the banker's credit processing interface for people with disabilities.                           |
| White-box tests:  | Change-related tests:  |
| Component testing, tests are designed to achieve complete statement and decision coverage for all components that perform financial calculations.                         | Component testing, automated regression tests are built for each component and included within the continuous integration framework.   |
| Component integration testing, tests are designed to exercise how each screen in the browser interface passes data to the next screen and to the business logic.          | Component integration testing, tests are designed to confirm fixes to interface-related defects as the fixes are checked into the code repository.                                 |
| System testing, tests are designed to cover sequences of web pages that   | <b>System testing</b> , all tests for a given workflow are re-executed if any screen on that workflow changes.   |
|   | that workflow changes  |
| can occur during a credit line application.  System integration testing, tests are designed to exercise all possible inquiry types sent to the credit score microservice. | System integration testing, tests of the application interacting with the credit scoring microservice are re-executed daily as part of continuous deployment of that microservice. |