What do we need to test?

* Functionality – features that need to be implemented > FUNCTIONAL TESTING
* How this application will be integrated with bank application? > INTEGRATION TESTING
* How will it work under different browsers and devices? > COMPATIBILITY TESTING
* How will it work on mobile devices during calls and messages? > MOBILE TESTING
* How will it be protected from hackers? > PENETRATION TESTING
* How quickly application will work? > PERFORMANCE TESTING
* How will it be comfortable for people with disabilities? > ACCESSIBILITY TESTING
* What languages should be supported? > LOCALIZATION TASTING
* How clear and comfortable will this application be for users? > USABILITY TESTING

TEST STRATEGY

How to organize testing?

Some testing types can be combined:

* Regression & Localization & Mobile & Compatibility vs Permissions

Some testing types require person with special skills or /and budget allocation:

* Performance, security, usability

Some testing types require “special testing”/business knowledge:

* Accessibility, Localization, Mobile testing.

When testing types will be performed?

* During sprint/at the end of release/during UAT; one –time execution or every sprint.

*Регрессионное тестирование* – это когда необходимо проводить проверку того, что тестировали раньше.

*Локализационное тестирование* — это проверка содержимого приложения или сайта на соответствие лингвистическим, культурным требованиям, а также специфике конкретной страны или региона. *Тестирование локализации* — один из видов контроля качества, который проводится во время разработки продукта.

TESTING APPROACH:

Testing environments:

Who provided env? What requirements? Who supports them? When are they refreshed?

Test Tools:

Test Management, Bug Tracking tools, mockups, scripts, special like Jmeter, etc.

Testing Phases:

When and who perform particular testing types?

Test Data Management:

Production like data? Specific data? Large amount of data for performance?

Test Documentation:

Test Cases or just checklist or Test Scenarios or Test Matrix?

Test Automation:

Who defines what to automate? Based on what criteria? How will it help to manual testing? When do we run what?

Time is crucial factor for success.

Main limitation to speed development is quality.

Необходимо найти баланс между: Money – Time – Quality.

Testing in Agile.

Engineering practices:

CI/CD

Automated Quality Gates

Coding Standards

Code review

Automated static code analysis

Unit testing

Test-Driven Development

Release strategy

TEST AUTOMATION IN SPRINT

1. BEFORE DEVELOPMENT:

* Collaborate with developer to define (определить) what tests will be created on which level and by whom.
* Agree with developer about unique ID of controls (request/response templates in case of services implementation).

1. DURING DEVELOPMENT:

* Create empty tests with idea of the tests.
* Populate tests with steps: include available steps and comment out steps which are dependent on implementation.
* Mock components which will not be available during this sprint.
* Automate test data generation/population.

1. ONCE CODE IS READY:

* Debug new automation tests as soon as code is committed.
* Run all existing automation tests after commit of new code.

Виды тестирования.

По объекту тестирования:

1. Функциональное:

функциональное тестирование

тестирование GUI

тестирование безопасности

1. Нефункциональное:

интерфейсов

юзабилити

локализации

конфигурационное

совместимости

инсталяционное

производительности

помехоустойчивости

документации

По степени автоматизации:

1. Ручное.
2. Автоматизированное.

По критерию изменений:

1. Smoke тесты (выполняются ли основные функции)
2. Регрессионное тестирование
3. Тестирование билда
4. Санитарное тестирование

Тестирование по уровням:

1. Модульное тестирование
2. Интеграционное тестирование
3. Системное тестирование
4. Уровень критического пути