<Company Name>

Project Neco
Master Test Plan

Version <1.1>

1.

Revision History

Date	Version	Description	Author
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<Iteration/ Master> Test Plan

1. Introduction

1.1 Purpose

The purpose of the Iteration Test Plan is to gather all of the information necessary to plan and control the test effort for a given iteration. It describes the approach to testing the software, and is the top-level plan generated and used by managers to direct the test effort.

This *Test Plan* for the Team Neco supports the following objectives:

- Unit test for the use case “create identity”
- UI test for the use case “send message” and “receive message”

1.2 Scope

Functional Testing

Will blackbox test the application behaviour by using cucumber.

Unit tests

Will test the internal application logic.

1.3 Intended Audience

- Students
- Professors
- Programmers

1.4 Document Terminology and Acronyms

n/a

1.5 References

n/a

1.6 Document Structure

n/a

2. Evaluation Mission and Test Motivation

Automated Testing is good for detect coding errors and will show them. Programmer are lazy people and test only things they have changed. To prevent error in the productive run, we must detect error in the development process.

2.1 Background

Because our team includes some programmers, it could happen that while changing, deleting or updating code the already existing code is negatively affected. The automatic testing should discover these.

2.2 Evaluation Mission

Testing is done to provide a stable software. And we will fulfill the goal by the following points.

- find as many bugs as possible
- find important problems
- certify a standard
- verify software specification

2.3 Test Motivators

- Technical risks
- Functional requirements
- Non-functional requirements

3. Target Test Items

The listing below identifies those test items—software, hardware, and supporting product elements —that have been identified as targets for testing. This list represents what items will be tested.

- Models
- Server
- Encryption logic

4. Outline of Planned Tests

4.1 Outline of Test Inclusions

- UI Tests
- Unit Tests

4.2 Outline of Other Candidates for Potential Inclusion

n/a

4.3 Outline of Test Exclusions

n/a

5. Test Approach

- UI Tests
- Unit Tests

5.1 Initial Test-Idea Catalogs and Other Reference Sources

5.2 Testing Techniques and Types

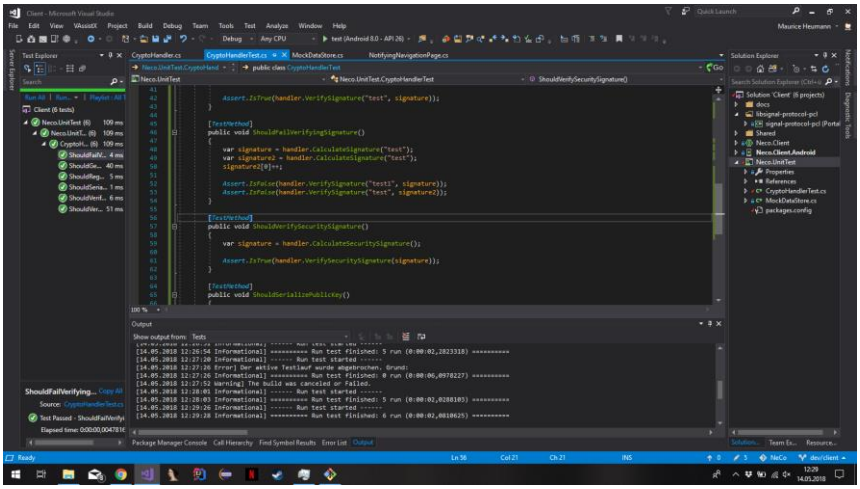
5.2.1 UI Testing (Send Message)

Technique Objective:	Testing the UI for sending a message from the App.
Technique:	• Testing the app functionality with Gherkin .feature files
Oracles:	The test is successful, if it's executed and did what was expected
Required Tools:	VS Plugin SpecflowVsIntegration Visual Studio 2017
Success Criteria:	All test are executed successfully

5.2.2 Unit Testing

Technique Objective:	Testing the functionality of the code
Technique:	Testing the code of the testable classes Cryptohandler
Oracles:	The tests are successful, if all correct answers are running through
Required Tools:	Visual Studio 2017
Success Criteria:	All Tests pass

5.2.2.1 Test Log



5.2.3 Installation Testing

Technique Objective:	Testing the possibility to install the app
Technique:	Testing the installation process for simplicity
Oracles:	The test user has no trouble with installing the app and the app is running on the testuser's device
Required Tools:	End device with Android 8.1 installed (e.g. smartphone) SurveyMonkey for Tester Feedback
Success Criteria:	The test user succeeds in installing and running the app

SurveyMonkey Survey: https://de.surveymonkey.com/r/J5BPWFC
Results of Survey: https://de.surveymonkey.com/results/SM-928N6PMCL/

6. Deliverables

6.1 Test Evaluation Summaries

Test evaluation is done by hand directly after the test is executed.

6.2 Reporting on Test Coverage

Test coverage is reported in our IDE

6.3 Perceived Quality Reports

n/a

6.4 Incident Logs and Change Requests

n/a

6.5 Smoke Test Suite and Supporting Test Scripts

n/a

6.6 Additional Work Products

n/a

6.6.1 Detailed Test Results

n/a

7. Testing Workflow

Unit tests are run automatically. We are additionally performing an installation test.

8. Environmental Needs

8.1 Base System Hardware

The following table sets forth the system resources for the test effort presented in this *Test Plan*.

System Resources		
Resource	**Quantity**	**Name and Type**
Server Name		Neco.it.dh-karlsruhe.de
Test Development PCs	3	Mirko, Alex, Maurice
Repository	1	GitHub

8.2 Base Software Elements in the Test Environment

The following base software elements are required in the test environment for this *Test Plan*.

Software Element Name	Version	Type and Other Notes
Android	8.1	Operating System
Visual Studio	2017	IDE

8.3 Productivity and Support Tools

The following tools will be employed to support the test process for this *Test Plan*.

Tool Category or Type	Tool Brand Name	Vendor or In-house	Version
Project Management	JIRA	Atlassian	7.9.2
Mockup	Balsamiq		

8.4 Test Environment Configurations

The following Test Environment Configurations needs to be provided and supported for this project.

Configuration Name	Description	Implemented in Physical Configuration
Average user configuration		
Minimal configuration supported		
Visually and mobility challenged		
International Double Byte OS		
Network installation (not client)		

9. Responsibilities, Staffing, and Training Needs

9.1 People and Roles

This table shows the staffing assumptions for the test effort.

Human Resources		
Role	**Minimum Resources Recommended** (number of full-time roles allocated)	**Specific Responsibilities or Comments**
Test Manager	1	Provides management oversight. Responsibilities include: • planning and logistics • agree mission • identify motivators • acquire appropriate resources • present management reporting • advocate the interests of test • evaluate effectiveness of test effort
Test Analyst	2	Identifies and defines the specific tests to be conducted. Responsibilities include: • identify test ideas • define test details • determine test results • document change requests • evaluate product quality
Test Designer	3	Defines the technical approach to the implementation of the test effort. Responsibilities include: • define test approach • define test automation architecture • verify test techniques • define testability elements • structure test implementation

Human Resources		
Role	**Minimum Resources Recommended** **(number of full-time roles allocated)**	**Specific Responsibilities or Comments**
Tester	3	Implements and executes the tests. Responsibilities include: • implement tests and test suites • execute test suites • log results • analyze and recover from test failures • document incidents
Test System Administrator	1	Ensures test environment and assets are managed and maintained. Responsibilities include: • administer test management system • install and support access to, and recovery of, test environment configurations and test labs
Designer	1	Identifies and defines the operations, attributes, and associations of the test classes. Responsibilities include: • defines the test classes required to support testability requirements as defined by the test team
Implementer	3	Implements and unit tests the test classes and test packages. Responsibilities include: • creates the test components required to support testability requirements as defined by the designer

9.2 Staffing and Training Needs

This section outlines how to approach staffing and training the test roles for the project.

10. Iteration Milestones

Milestone	Planned Start Date	Actual Start Date	Planned End Date	Actual End Date
>20% Test Coverage				
Have UI tests				

Milestone	Planned Start Date	Actual Start Date	Planned End Date	Actual End Date
Have Unit tests				
Have installation test				

11. Risks, Dependencies, Assumptions, and Constraints

Risk	Mitigation Strategy	Contingency (Risk is realized)
Test data proves to be inadequate	<Customer> will ensure a full set of suitable and protected test data is available. <Test> will indicate what is required and will verify the suitability of test data	• Redefine test data • Review test plan and modify components (scripts) • Consider load test failure
Technical Problems	<Tester> needs to make sure everything is running fine	• Fix the problem

Dependency between	Potential Impact of Dependency	Owners

Assumption to be proven	Impact of Assumption being incorrect	Owners

Constraint on	Impact Constraint has on test effort	Owners

12. Appendix

To-Do
Screenshot VS Code metrics
Cyclomatic complexity