**Raiffeisen Group IT – Test Plan**

1. **Introduction**
   1. **Purpose**

The purpose of this plan is to decide upon the itinerary required for testing the functional and non-functional properties of the Bausparrechner, validating the calculator with respect to software requirements. This plan outlines the testing objectives, scope, test approach, test resources, schedule, risks and test deliverables.

1. **Scope**

Throughout the plan, the software will be subjected to the following testing types:

* + 1. Functional Testing
    2. Performance Testing
    3. Security Testing
    4. Usability Testing
    5. Compatibility Testing

1. **Test Objectives**

The objectives of testing mentioned are:

* Accurate calculations for tariffs specified
* Robustness against expected load of user
* Response time for the user operations
* Software response when excess amount of user access
* User friendly web interface
* Compatibility in cross-browser usage

1. **Test Approach**

Following the test types mentioned in Test Scope, planned testing types is mentioned in detail as testing approach.

* 1. Functional Testing:

Within the functional testing approach, the functionality of the calculator will be verified and validated, with respect to the software requirements.

* 1. Performance Testing:

The response time will be evaluated for every instance of calculation and for the load testing when the number of users are increased gradually to its limit.

Stableness of the software will be measured in terms of stress testing, when the maximum amount of user planned is excessed.

* 1. Security Testing

The software vulnerabilities and weaknesses will be identified through penetration testing, simulating real-world cyberattacks.

* 1. Usability Testing

The software will be evaluated by its user interface to enhance user-friendliness.

* 1. Compatibility Testing

The software’s ability to work on cross-browser and cross-device will be evaluated.

1. **Test Resources**

Hardware needs to cover the testing approach are Windows/Linux/MacOS-based systems or access to their virtual machines simulating those operating systems.

For software requirements, browsers known as Chrome, Microsoft Edge, Safari, Firefox and Opera will be used.

The testing tools required are

* Playwright: Testing UI functionality of the calculator
* Postman: Testing the Rest API requests
* JMeter: Performance Testing tool

1. **Risks**

The risks of this software include

* Inaccurate calculations
* Security vulnerabilities
* Performance complications arise from user mass
* Usability drawbacks
* Platform-wise compatibility deficiencies

Those listed risks can be mitigated through the types mentioned in test approach.

1. **Test Deliverables**

The test deliverables differentiate per test process step as mentioned below

* Test Planning Phase: Test Plan Document
* Test Design: Requirement Traceability Matrix, Test Cases, Test Scenarios
* Test Execution: Test Execution Report, Defect Reports, Test Logs
* Retesting Phase (if applicable): Regression Test Reports
* Test Completion: Test Summary Report, Change Requests, Lessons Learned