Acceptance Test Report

Project Information:

- **Project Name:** NBP Crasher
- **Project Manager:** Przemysław Kowalski
- **Report Date:** 19.01.2025
- **Tester Environment:** Fedora Linux (41)

Scope of Testing:

- **Objective:** Acceptance tests were conducted to validate the system against the **functional** and **non-functional requirements** provided. All test cases were executed to confirm compliance with the stated requirements.

Functional Requirements:

Requirement	Description	Result	Comments
2.1.1 Integration	Integration with the NBP API, daily updates, historical data retrieval (no older than 02.01.2002).	Passed	System retrieves and processes data correctly within the specified constraints.
2.1.2 Supported Currencies	Analysis supported for USD, EUR, GBP, JPY, CHF, and PLN.	Passed	All specified currencies were validated successfully during tests.
2.2.1 Supported Time Periods	Time ranges include predefined and custom periods (no later than 02.01.2002, not future).	Passed	All tested time periods, including custom ranges, yielded correct results.
2.2.2 Session Change Buckets	Session changes categorized into 14 buckets based on dynamic step calculation.	Passed	Bucket calculations and classifications were accurate for all tested datasets.
2.2.3 Session Analysis	Counts of increasing, decreasing, and no-change sessions for specified time periods.	Passed	Results matched expectations for all predefined and custom time ranges.
2.2.4 Statistical Measures	Median, mode, standard deviation, and coefficient of variation calculations.	Passed	Calculations were validated against expected values and external tools for accuracy.
2.2.5 Distribution Analysis	Histogram and table representation of change distributions for selected pairs pai	Passed	Visual and tabular representations were accurate and met user expectations.

Non-Functional Requirements:

Requirement	Description	Result	Comments
3.1 Hardware Requirements	System deployed on hardware meeting the specified requirements	Passed	Hardware met all requirements; no performance issues observed.
3.2 Performance	Calculation time ≤ 2 minutes; support for 10 concurrent users.	Passed	Average calculation time: ~2 seconds; tested with 10 simultaneous users without issues.
3.3 Security	Input validation and rate limiting to prevent misuse.	Passed	Rate limits successfully enforced; Input validated correctly.

Key Observations:

- **Integration Success:** The system integrated seamlessly with the NBP API and handled real-time and historical data accurately.
- **Statistical and Visual Outputs:** All statistical calculations and visual data representations were accurate and user-friendly.
- **Performance Metrics:** The system consistently met performance expectations, with room to support higher loads if required.
- **Security Measures:** User inputs were validated, and rate limits were enforced, preventing excessive API calls.

Conclusion:

- All acceptance tests were successfully completed, and the system meets all functional and non-functional requirements. The application is ready for production deployment and client handover.