A. Description of Activities Performed

Environments and devices used for testing:

- **Environment:** Google Chrome Browser (Version 143) – in accordance with the supported browsers specification.

- **Device:** Desktop computer, screen resolution above 1024px.

Tester Login and Password: End User.
Build number: 2.0.0
Execution date: 13.01.2026

Application areas and types of tests performed:

Application Area	Types of Tests Performed	Time Spent
User Interface	Functional tests, Acceptance tests	15 min
"Session Analysis" Section	Functional tests, Performance tests	15 min
"Statistical Measures" Section	Functional tests, Performance tests	15 min
Entire Application	Performance, Functional, Acceptance tests	30 min

B. Summary of All Defects

1. **Fixed and Retested:**

   - None (first iteration of the report after the implementation phase).

2. **To Do / Outstanding:**

   - **DEF-001:** Discrepancy in the session total within the Session Analysis component (FR-02).

   - Link to issue: `https://github.com/IIS-ZPI/ZPI2025_zaoczni_Orange/issues/65`

3. **Risky to Fix:**

   - None.

C. Detailed Description of Defects

Test 1a (DEF-001)
Detected by: Jakub Klimczyk
Report in which detected: Current
Priority: Medium
Reproducibility: 100%
Browser: Google Chrome v143 (Supported Browser)
Location: Main Page > Session Analysis USD

Values in individual cards may differ from those provided in the test result, as they pertain to the exact date (13.01.2026) of the "last week" period query.

Steps to Reproduce:

1. Open the application in a supported browser (e.g., Chrome 143).

2. Select the USD currency and the "last week" period.

3. Read the "Total number of sessions" value from the section header.

4. Sum the values from the following cards: Rising, Falling, and Stable.

Test Results:
Expected: The sum of rising, falling, and stable sessions must correspond to the total number of sessions (Total=5, Sum=5).
Actual: The sum is 4 (3 rising + 1 falling + 0 stable), while the "Total number of sessions" indicates 5. The missing data results from a lack of a reference point for the first day of the period $(N-1)$.

D. Summary of Exit Criteria for All Tests

1. **Were the planned tests completed?**: Partially. Initial verification of the Session Analysis module was conducted; however, a detected logic error in the calculations prevents full functional acceptance at this stage. Verification of the Change Distribution module was not performed as it was not delivered before testing commenced.

2. **Were any difficulties encountered?**: Yes. A data integrity issue was identified stemming from the data retrieval architecture from the NBP API (lack of a reference point for the first session in the selected range).

3. **Conclusions for the future**: The API data retrieval logic should be modified by introducing an $N+1$ offset (fetching an additional day prior to the selected period) to ensure correct trend classification for the first session in the user interface.

E. Additional Remarks Regarding the Development Process

Developers are efficiently creating unit tests, allowing us to effectively isolate the NBP API operation from the calculation logic of specific units. Every change introduced by a developer is automatically verified against the test suite. If tests fail, merging the change into the main code is not possible. Thanks to this approach, the system is significantly less prone to integrity errors related to the external NBP API.