**Project Status Report no 2**

**Project Information:**

* **Project Name:** NBP Crasher
* **Project Manager:** Przemysław Kowalski
* **Report Date:** 07.01.2025
* **Project Duration:** 08.12.2024 – 31.01.2025

**Management Summary:**

* The backend phase of the project has been completed successfully.
* Unit tests were utilized to ensure code quality and reliability.
* Technologies used include Python and communication with NBP API.
* Key milestones achieved in this phase include:
  + Input data validation,
  + Integration with NBP API,
  + Validation of sample response from NBP API,
  + Validation of statistical calculator (measures specified in requirements specification). During unit tests phase, 2 edge cases were caught and handled regarding creation of dynamic ranges used for rates change distribution calculation. Those cases are:

1. Maximum and minimum values in the passed set are the same

**Solution**: step for ranges takes maximum value of the set

1. Values present same step along the set  
   **Solution**: step for ranges is hard-coded and equals 0.5

* Automated tests via GitHub service.
* Automated builds and releases.

**Key Achievements:**

* Backend development completed.
* Successful implementation of unit tests to validate various components.

**Current Status:**

* **Milestones Progress:** Completed backend phase.
* **Tasks Completed:** Backend development, unit tests implementation.
* **Current Tasks Overview:** Preparing for frontend and API integration phase.
* **Project Completion Percentage:** 50% (includes initial frontend implementation).

**Risks:**

* **Risk Identification:**
  + Sudden NBP API failure.
  + Integration issues between frontend and backend.
* **Impact and Likelihood Assessment:** High impact, medium likelihood for both risks.
* **Mitigation Strategies:** Continuous monitoring of NBP API, thorough testing of integration phase.

**Upcoming Milestones and Tasks:**

* Integration of frontend with API.
* Frontend (UI) development.
* Frontend unit tests.
* Manual tests.

**Recommendations:**

* Begin frontend development to proceed with API integration.
* Continuously monitor NBP API to mitigate potential failures.

**Attachments:**

* [Detailed project status information](https://github.com/orgs/IIS-ZPI/projects/23/views/4?pane=issue&itemId=90935696&issue=IIS-ZPI%7CZPI2024_zaoczni_NBP_Crasher%7C33)