T27: Test plan and specification for the backend

Objective: Verify the functionality and reliability of the GPX elevation comparison script, including data parsing, API integration, elevation computation, and plotting. Test performance of different curve smoothing algorithms

Features to be tested:

- Accurate parsing of GPX files
- Correct elevation retrieval from APIs (Open-Elevation)
- Accurate distance calculation (testing haversine)
- Proper plot generation
- Error handling for network/API issues
- CLI input handling
- Edge Cases (correct GPX input, correct coordinates etc.)

Test approach:

- **Unit Tests:** focus on isolated logic (ex: distance computing, plotting etc)
- **Integration Tests:** Test multiple components and services (ex: parsing a GPX file and retrieving elevation data from an API, and verifying that the elevation data is correctly fetched)

For Curve Smoothing Algorithms:

- Code runs without error
- Returns output of correct shape and type
- Brings the noisy curve closer to the true curve
- Accuracy of smoothing
- Consistency