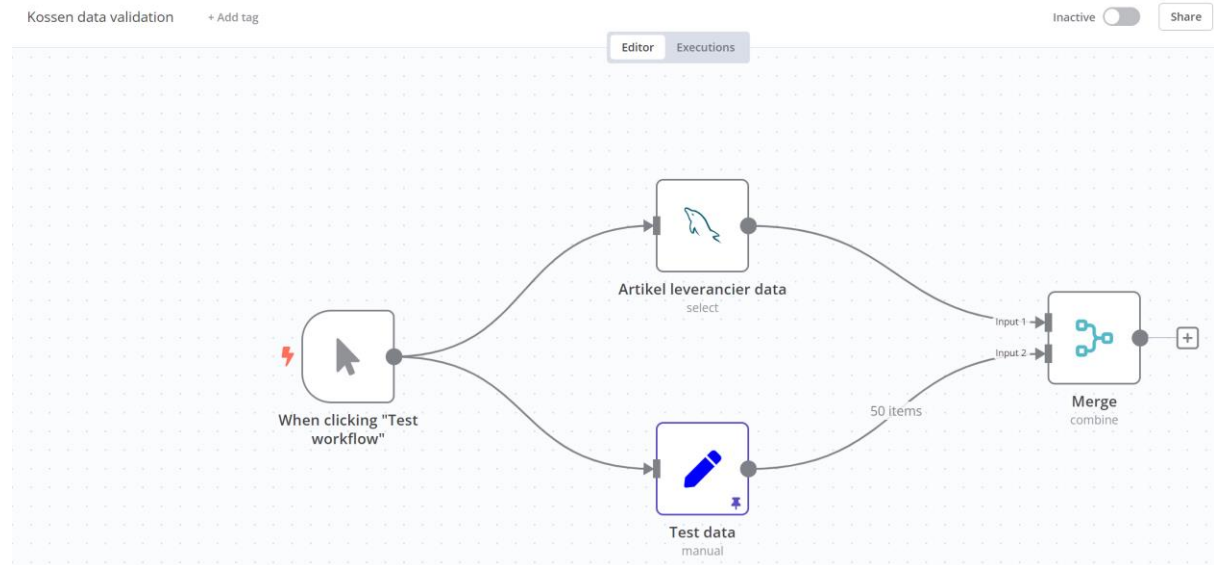


## Test Data Validation using n8n Automation.

In our project, data validation was a crucial step to ensure the accuracy and reliability of the collected data. We used n8n, an automation tool, to streamline and automate the data validation process. Here's an overview of how we implemented data validation using n8n.



### OBJECTIVE

The primary objective was to validate the scraped data by comparing it against manually inserted correct data. This ensures that any discrepancies or errors in the scraped data can be identified and corrected.

### WORKFLOW DESIGN

- Manual Data Entry**
  - Node:** Test Data
  - Description:** Manually enter a set of correct data which serves as the reference point for validation. This data is considered to be accurate and is used to compare against the scraped data.
- Data Extraction**
  - Node:** Artikel Leverancier Data
  - Description:** Extract data from the database where the scraped data is stored. This node selects the data that needs to be validated.
- Data Merging**
  - Node:** Merge
  - Description:** Combine the manually entered test data with the extracted data from the database. This merging is done based on specific matching criteria to align corresponding records.
- Comparison and Validation**
  - Node:** (Not shown explicitly, but implied within the Merge node or a subsequent node for comparison)
  - Description:** Compare the combined datasets to identify any mismatches or errors. The comparison checks each field to ensure the values match between the manual data and the scraped data.
- Trigger and Execution**
  - Node:** When clicking "Test workflow"
  - Description:** This trigger initiates the workflow, running the entire validation process from data extraction to comparison.

## EXAMPLE SCENARIO

In this workflow, we specifically focused on validating tire data from the supplier Kossen. The manually entered data includes known correct values for various attributes like tire size, manufacturer, and price. This data is then compared against the corresponding entries in the scraped dataset.

- **Correct Data Example:** A manually entered record for a tire with specific dimensions and price.
- **Scraped Data Example:** A record extracted from the database containing the scraped data for the same tire.

## RESULTS AND ADJUSTMENTS

After running the validation workflow, any discrepancies between the manually entered data and the scraped data are highlighted. This allows us to:

1. **Identify Errors:** Detect inaccuracies in the scraped data.
2. **Make Corrections:** Update the database to correct any errors.
3. **Improve Scraping Process:** Adjust the scraping scripts to handle identified issues better.

## Visual Representation

The visual workflow in n8n illustrates the process:

- The **"When clicking 'Test workflow'"** node triggers the validation.
- The **"Artikel Leverancier Data"** node fetches data from the database.
- The **"Test Data"** node represents manually entered data.
- The **"Merge"** node combines and compares the datasets.