

LoCoTEX – Development of a learning level-dependent and modular low-code development system

Problem / Motivation

- Small and medium-sized enterprises in the textile industry aim to train non-computer scientists digitally to enhance and complement their current production and planning systems
- Commercial low-code tools are often too expensive, therefore, open systems such as Node-RED are preferred, although they are too complex for non-experts
- The project will focus on the development of a modular and learning level-based low-code system that is especially suitable for textile process managers
- The aim is to enable end-users in the textile industry to create their own Industrial Internet of Things applications

Solution

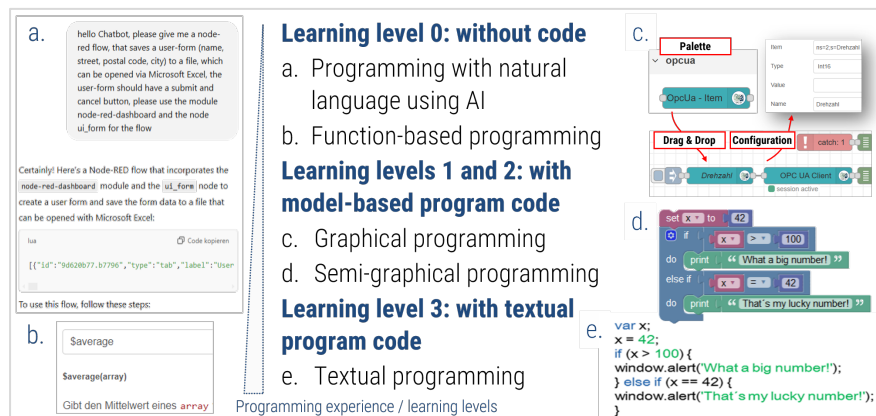
- Analysis of the low-code tool, that will be expanded and the state of the art as well as the possible extension mechanisms
- Development of a concept/architecture and implementation of technology tests as well as a programming assistant and an AI module for the generation of programming examples.
- Full integration of semi-graphical programming elements, the element creation process and the JSONATA language into the base system
- Development of a mechanism for the creation, parameterisation and packaging of reusable low-code modules as well as validation of the overall system and technical documentation

Project Launch

09/2024

Project Partner

currently none,
open for enquiries



Learning level 0: without code

a. Programming with natural language using AI

Learning levels 1 and 2: with model-based program code

b. Function-based programming

c. Graphical programming

d. Semi-graphical programming

Learning level 3: with textual program code

e. Textual programming

Programming experience / learning levels

Level-dependent programming with examples

Acknowledgement

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