Automate programming – EIAI

Engineered Information Systems with A.I.
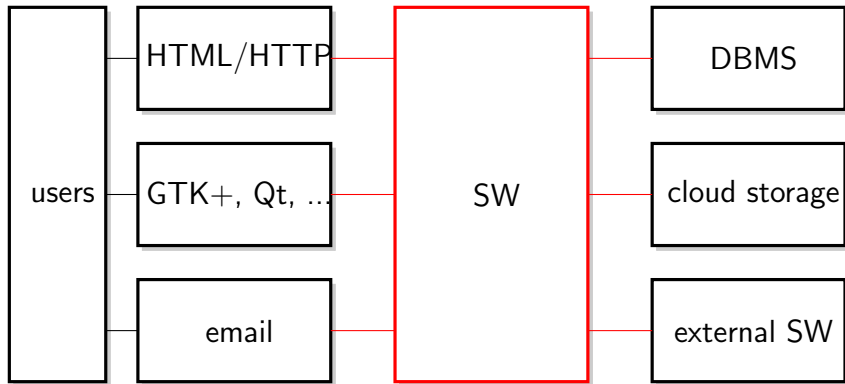
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EIAI – Technology

- Automated software synthesis for a broad class of Information Systems

- Replaces full-stack developers, programmers!

- Based on A.I. technologies:
  - combinatorial search
  - logic-based knowledge representation
  - automated reasoning

- Addresses the global 200+ Billion information systems market

Target: Information Systems

Approach

moneyTransfer amount, account1, account2
balance of a1 $\geq$ *amount*
user owns *account1* OR *user* is bank clerk
increase balance of *account2* by *amount*
decrease balance of *account1* by *amount*

...

Specification includes:
abstract "laws" of the application
authorizations (view, modify, ...)
UI customization (HTML5, CSS3)

- Derive database interfaces
- Derive user interfaces
- Derive functionality

by

- A.I. knowledge representation
- A.I. automated reasoning
- A.I. automated decision-making

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Project Status

- Demonstrators developed and planned:
  - University information systems
  - Financial, accounting
  - ...
- Prototype being re-implemented
  - improve throughput (HTTP & DB interfaces)
  - code generation (Java, Python, ...)
- Partners sought!