Forms at the user interface

Course Registration

delete

Nr.	name	phone	
1.	Alon	001 98 765	■
2.	Bert	04089 1234	■
3.	Charles	00358 4567	■
4.	Dan	001 23 456	■

register yourself

Delete Record

name: Bert

passwd [   ]

submit

New Student

name [   ]

phone [   ]

student ID [   ]

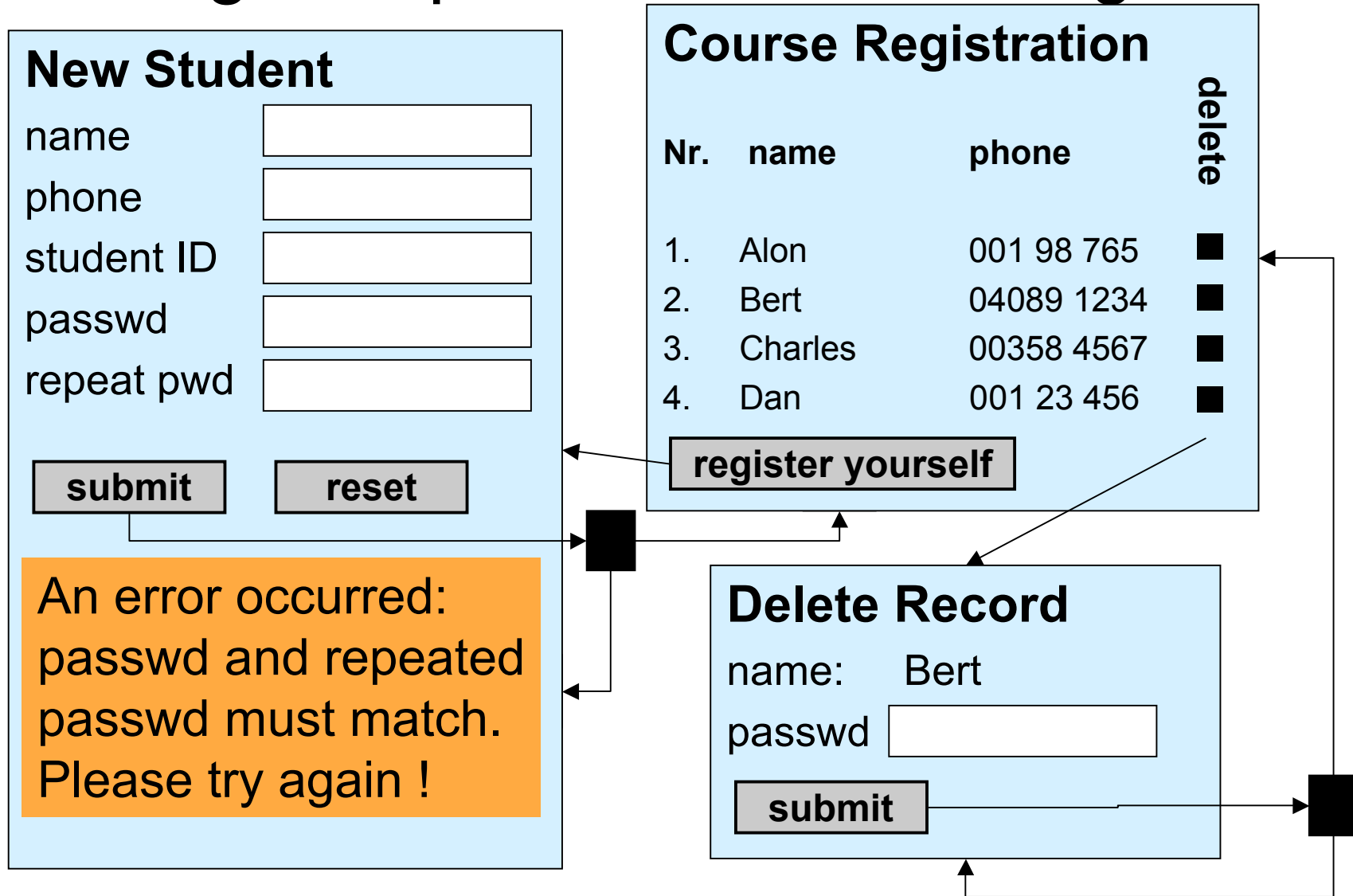passwd [   ]

repeat pwd [   ]

submit   **reset**
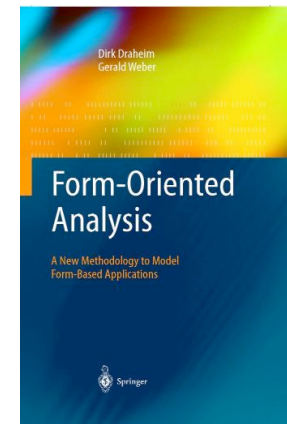
An error occurred: passwd and repeated passwd must match. Please try again !

Modeling Perspective: Screen Diagram

New Student

name

phone

student ID

passwd

repeat pwd

[submit]   [reset]

An error occurred: passwd and repeated passwd must match. Please try again !

Course Registration

delete

Nr.	name	phone	
1.	Alon	001 98 765	■
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3.	Charles	00358 4567	■
4.	Dan	001 23 456	■

[register yourself]

Delete Record

name: Bert

passwd

[submit]

incorrect password

Form-Oriented Analysis

- Draheim, Weber: Form-Oriented Analysis, Springer 2004
- Can be called a domain-balanced method
  - domain-balanced method: A method that has been improved by practical application to a domain.
  - Detailed example models provided, tested in practice
- Form-oriented analysis is a set of patterns for modeling typical enterprise applications.
- Makes heavy use of immutable message types:
- Fits to current trends in
- enterprise computing:
- Data warehouses store all transactions for analysis.

Opaque Identities

- Capture one of the capabilities of a computerized system that is not possible with paper forms:

    - Referring to objects, without using a human-readable key.

- The idea is that the system allows the user to manipulate the identities in a consistent way.

- Serves as basis for black box model of the machine.

Opaque Identities, a general model

- Opaque identities connect system output and user input.

- Basic Interaction Model: Drag & Drop
    - not available in widespread technologies (HTML-forms)
    - but semantically simpler

Options
☐ cheese   ◯ ketchup
☐ lettuce
☐ onions   ◯ mayo

Choose

☐ ☐ ◯   submit

DRAHEIM, D., LUTTEROTH, C., WEBER, G.:
'Robust Content Creation with Form-Oriented User Interfaces'.
CHINZ 2005, July 2005, Auckland, ACM Digital Library.

A normal form of a page in a form-based system

- The page has two parts:
  - A report that contains only immutable information
  - A set of forms, that can be filled
- Does not model default values
- The set of forms reachable from the report is clearly represented.

Choose

☐ ☐ ◯

comments:

submit

Favourite

◯

submit

Options
☐ cheese, 50 cents
☐ lettuce, 20 cents
☐ onions, 20 cents

◯ ketchup
◯ mayo
◯ bbq

compare with page and neighboring forms in the form storyboard

Form-based applications

- are everywhere, especially as enterprise applications, mostly for adminstrations:
    - enterprise resource planning (ERP), management Information systems (MIS), e-commerce.
    - human resources, education (CECIL, nDeva), health Information systems.
- are constantly newly developed.
- development can be very costly, systems are large and complex.
- have a lot of quality issues.
- are mission critical.
- hence: form-based applications are important.