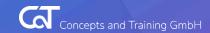
The perfect form

Optimizing forms with many fields

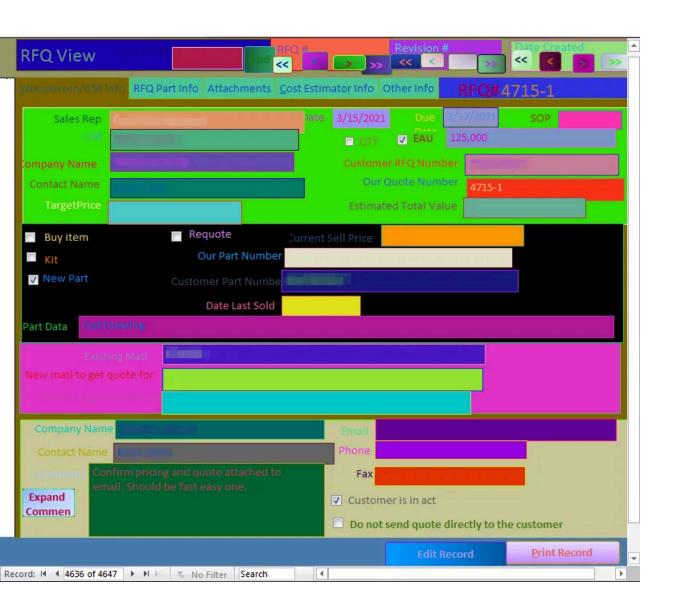




No app without forms







Data input needs forms

source: r/BadUIBattles, user: Ferro Giconi





Conventions and expectations

You realize how many you know, when you see them broken.

https://userinyerface.com/





Mental Modal

"I know how this should work from somewhere else."

Click below to unsubscribe from our newsletter

Unsubscribe

source: r/BadUIBattles, user: hakimel





Helpful

- it's like a language we share with the user
- if we speak their language, the users feel at home





Challenge

- like a language it can be used incorrectly
- sometimes creating something good requires multiple drafts
- misunderstandings happen





The perfect form?





It depends...

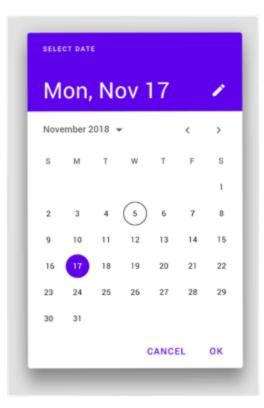
- like with language: no one answer to write the perfect poem, essay or paper
- Does it do, what it is supposed to do?





There is more than one way









Which one is the best in *this* case?





Actual title for this presentation:

Best practices for forms potentially interesting for ILIAS





Let's talk about

- Evidence-based design choices
- The goal of a form
- Forms in ILIAS
- What to avoid & what to consider?
- Possible next steps for ILIAS forms





Ferdinand Engländer

- Frontend Developer at Concepts and Training GmbH
- many ILIAS UI Component projects together with the University of Bern
- past UI research and projects for the University of Bern
- this presentation is also based on a research paper commissioned by the University of Bern





Evidence-based design choices





Problem with Design

If it's about beauty, it's up to feelings and preferences.





Ul is not about beauty!

It's about if users can use the interface

- quick
- no errors
- achieving their goal
- = Good UI/UX is measurable!





Studies & user testing

- eye-tracking (path & fixations)
- number of errors
- time
- checkpoints / success rate
- reported issues





Helpful Sources

- Luke Wroblewski, Web Form Design Filling in the Blanks, 2008, New York,
 Rosenfeld Media
 - Etre Ltd User Study
- UX Research Groups
 - Nielsen Norman Group
 - Baymard Institute





The goal of a form





3 types of form interaction

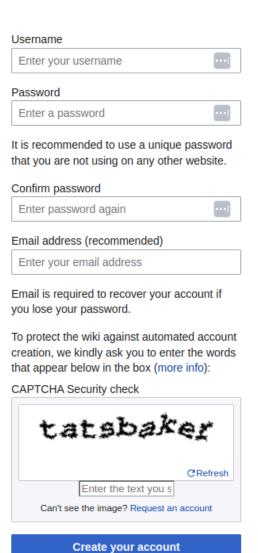




1. Condensed information prompt

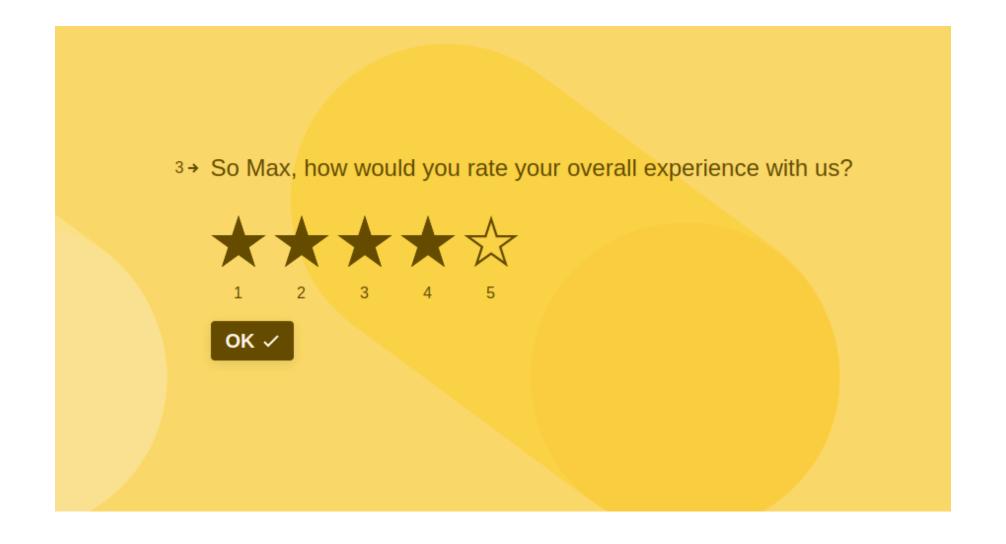
















2. Object creation focus





New: Multiple Choice Question (Single Answer)

∢ Back to t	he question page	Edit Question	Feedback	Hints	Content for Recapitulation	
Multiple Choice Question (Single Answer)						
Title *						
Author *		root	user			
Description						
Lifecycle		Draf	+			
-		Drai	t 🔻			
Question *						

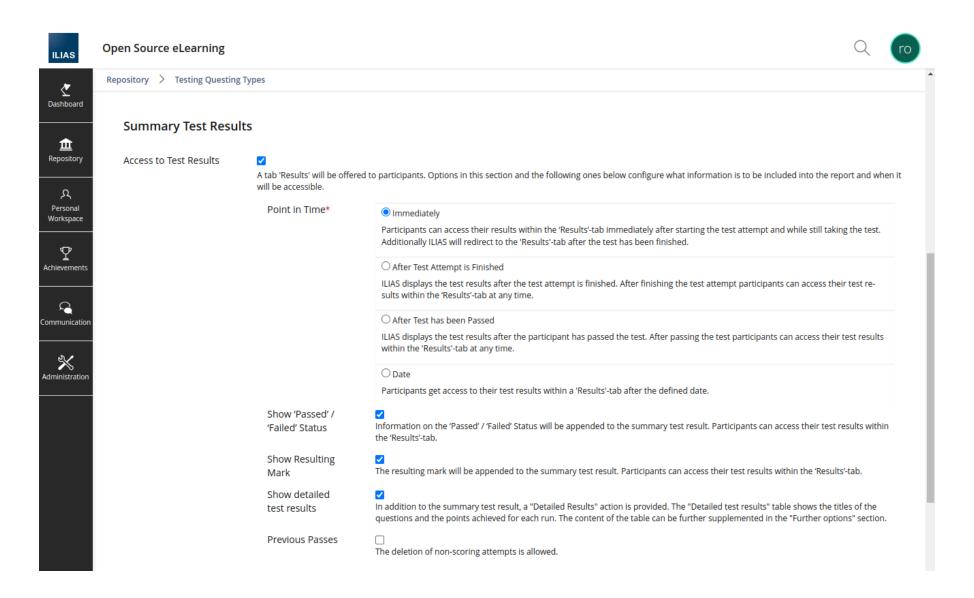




3. Adjusting Settings











Forms in ILIAS





- very often complete representation of an object
 - o list of almost all possible options and properties
- design doesn't change for any interaction type
- fields are spread out over tabs and sub-tabs
- complex objects have very long forms





Research paper objective

- How do we better deal with...
 - o less relevant sections vs. mandatory sections
 - o rarely relevant advanced sections
 - o complex steps and nested sub-forms





- Goals
 - objectively
 - shorter completion time
 - rules for structure & nesting
 - subjectively
 - better overview
 - less frustration





What to avoid or consider?

according to research findings





Accordions

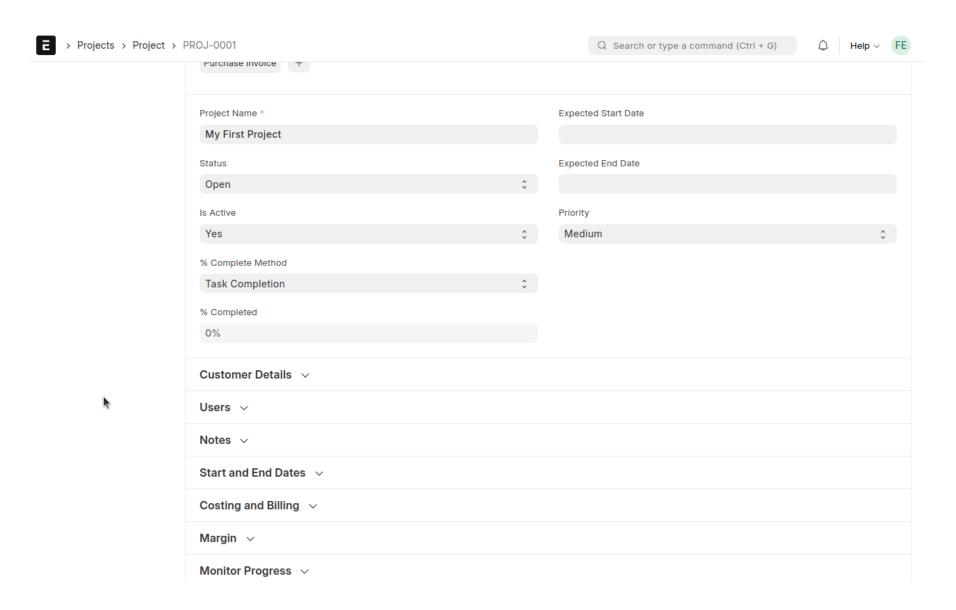




- We have groups in ILIAS forms
- But they are not collapsible











Advantages

- potentially really effective: hiding irrelevant form controls until needed
- easy on the eyes
- Allowing multiple open sheets suggests that all sheets will be submitted (Tabs do not have this)





Disadvantages

- can confuse users
 - which form fields will be submitted?
- pushes rest of the page

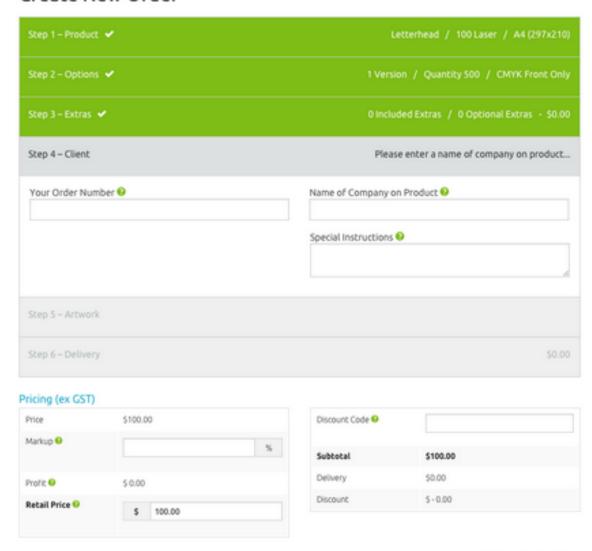




Powerful use: Step by step

- test subjects experienced accordion checkouts as a multistep process
- returning to previous accordion section when using the browser back button
- storing data during each step
- continue button inside each accordion drawer possible
- partial validation of the input

Create New Order











Tabs





Inline Groups

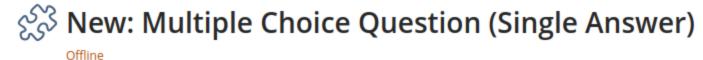


source: Luke Wroblewski, Web Form Design - Filling in the Blanks





Groups / Sub-Forms



◀ Back to the question page **Edit Question** Feedback Content for Recapitulation Hints Multiple Choice Question (Single Answer) Title * Author * root user Description Lifecycle Draft Question *





Advantages

- selected set and other available sets are clearly visible
- good when users don't need to see content from multiple tabs simultaneously
- hiding irrelevant form controls from people until they need them



Disadvantages

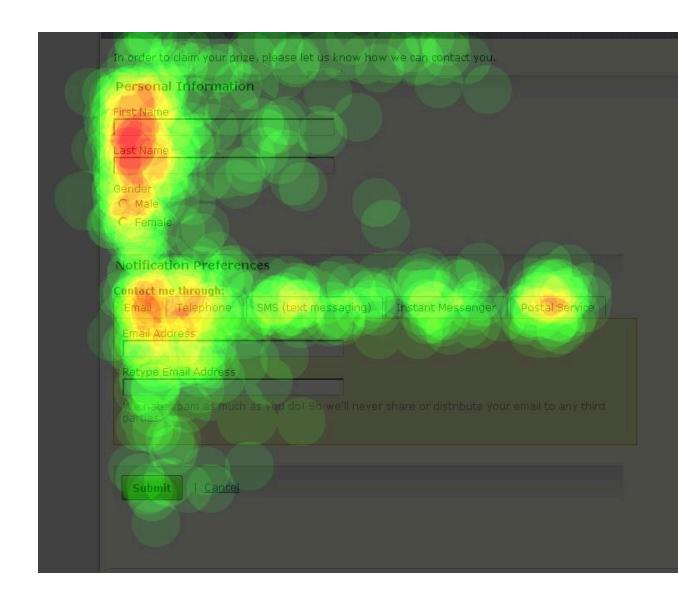
• users often can't tell if the "sheets" are mutually exclusive





Specific to horizontal tabs

- sometimes options are overlooked
- breaks the flow in a mostly top to bottom focus
- eye-tracking data indicated that other designs were easier to process

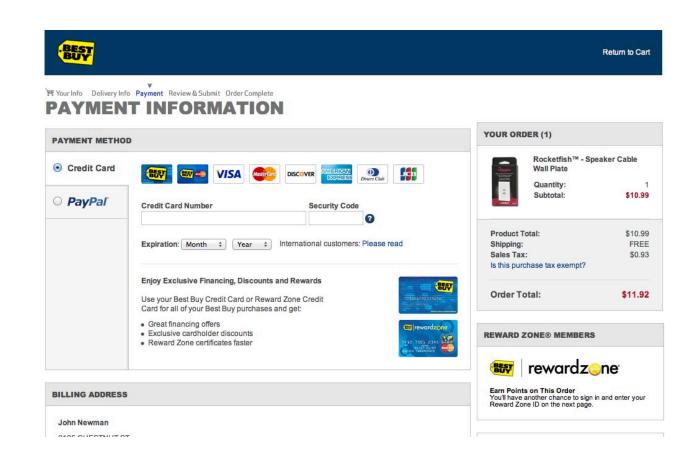






Specific to vertical tabs

- mutually exclusive options can be indicated with radio buttons
- vertical tabs score better on satisfaction, eye-tracking metrics, and time to completion







Conditional Visibility





Switchable / Optional Group

Pick One	O Switchable Group number one (with numeric key)
	O Switchable Group number two
	with byline
	○ No items in this group
	but a byline
	or the other
Pick One*	O Switchable Group number one (with numeric key)
	O Switchable Group number two
	with byline
	○ No items in this group
	but a byline
	or the other
Again, Pick One	O Switchable Group number one (with numeric key)
	O Switchable Group number two
	with byline
	No items in this group
	but a byline
	or the other. Second option is selected by default here.





Advantages

- feature already exists in ILIAS
- maintain context of initial selection, while introducing more inputs when needed
- near perfect satisfaction ratings





Disadvantages

- animation recommended to make the page shift less jarring
- can be disorienting



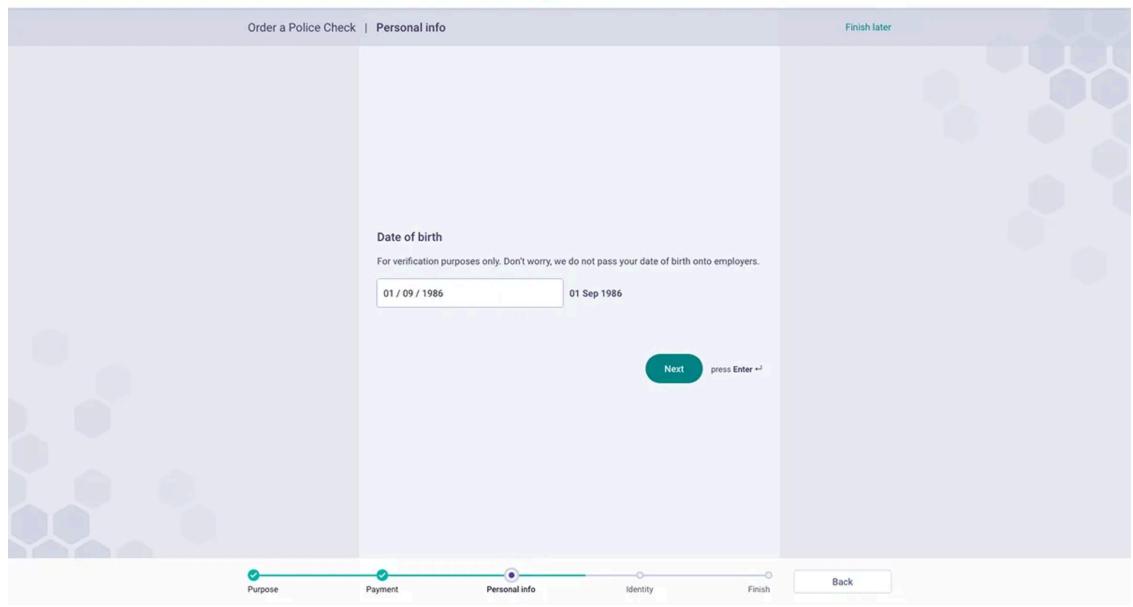


Wizards













- specialized for new object creation
- hides optional & advanced sections by skipping over them
- average satisfaction, low number of errors, good eye-tracking scores
- lack of scroll perfect for mobile
- user might not be aware of all pages and fields
- honroable mention: chatbot / conversational forms

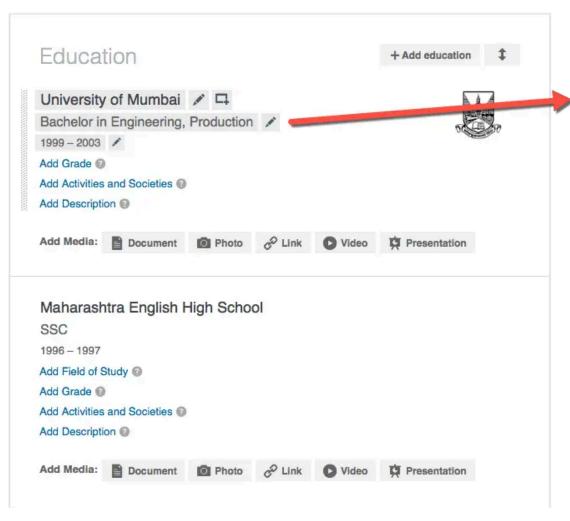


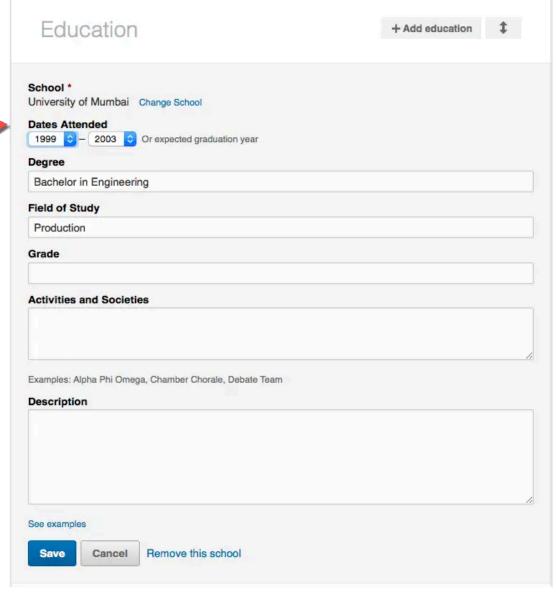


Editing & Viewing Mode





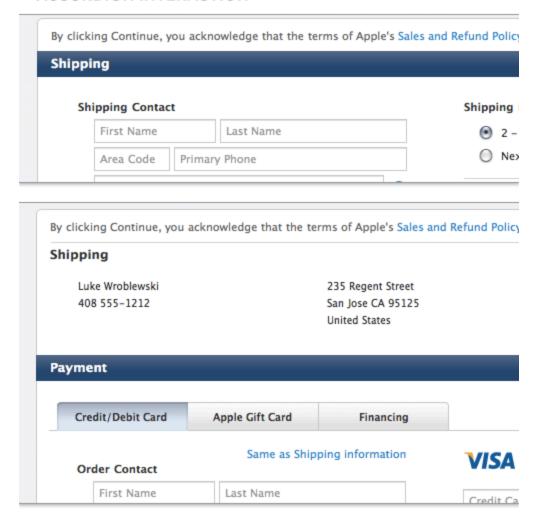






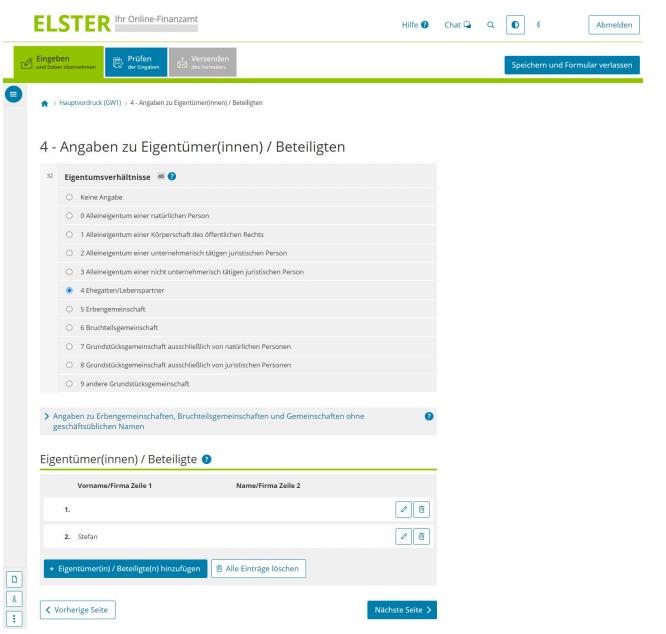


ACCORDION INTERACTION













Advantages

- solves the issue with vertical accordions because there is no doubt that the data has been saved.
- the view mode summary could omit labels where they are clearly implied ("first name: Bob, last name: Smith" simply becomes "Bob Smith")
- can hide empty or advanced inputs entirely





Disadvantages

• The need to switch to an edit mode can potentially introduce an unnecessary obstacle (what can be edited?)



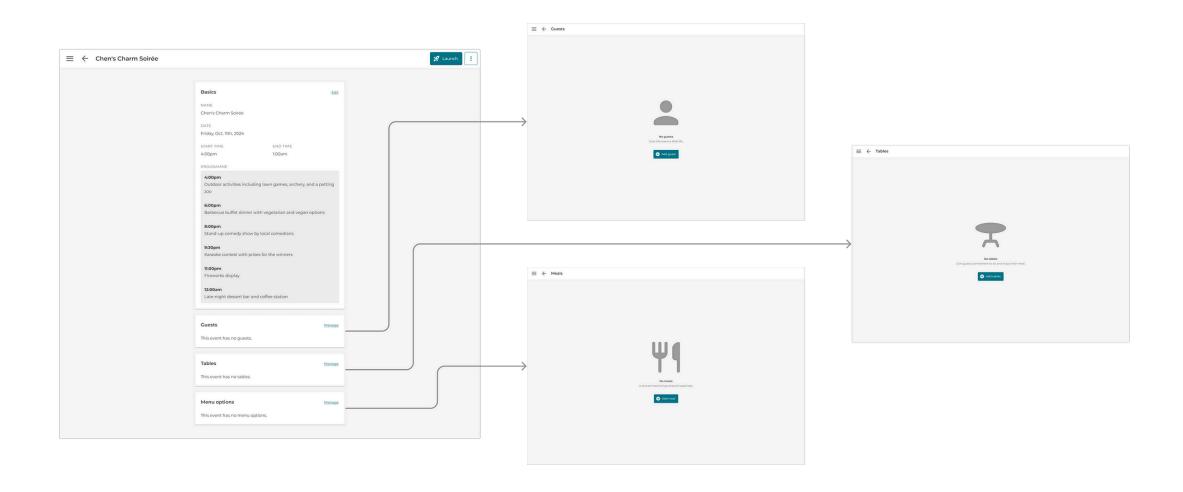


Object-Oriented Branching

using summary view sections









less sub-tabs more child-items



Test **Questions** Info Settings Participants Results Manual Scoring Statistics History Metadata Export Permissions

List View Print View Review

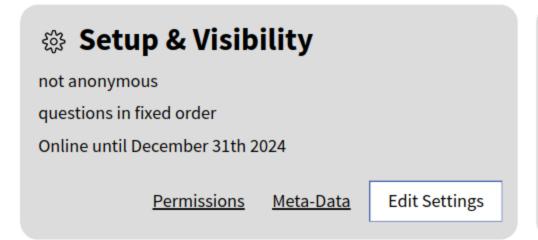




Introduction to Rocket Science

<u>Export</u>

Launch Test





Questions

Import from Pool

Add question





• strong focus on the process and a structure of sub-views and -items





Advantages

- object oriented structures align with the user's mental model to focus on one object at a time
- clear drilldown-style way-finding
- exposing selected information from lower layers in view mode increases the overview and saves clicks
- Breaking large and complex forms into smaller and simpler forms is a fundamental principle in creating mobile-friendly designs





Disadvantages

- goes far beyond just tweaking the current forms: A lot of concept work and user testing is required
- Some people might prefer an "everything" screen

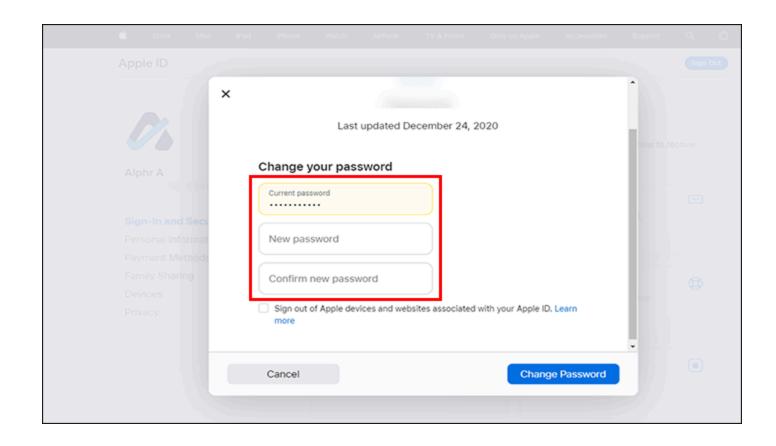




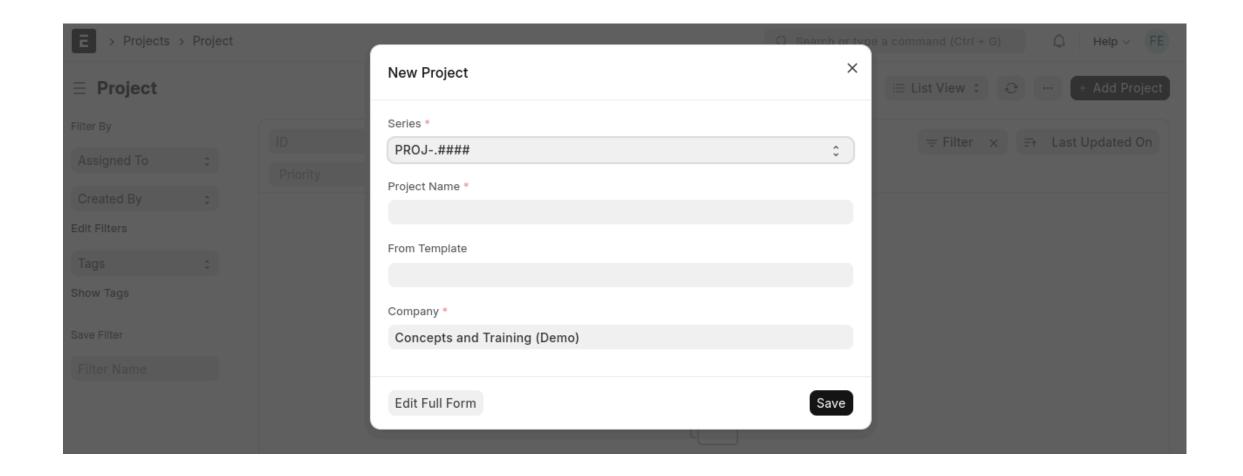
Modals















Advantages

- great for a large number of initially hidden inputs
- avoids page jumping and disorientation





Disadvantages

- modal should not cover up anything the user might still want to reference sidebars and accordions might do a better job
- if context is lost it's "hard for users to know where they are and what's going on, especially those with cognitive disabilities"
- how the modal closes or saves needs to be made very clear to avoid frustrations



Possible Next Steps for ILIAS





Working with what we have

- switchable / optional groups
- reducing fields
- re-ordering fields by priority and expected relevance
- grouping fields by semantic groups
- can be done now without waiting for any features
- user testing (thinking out loud method)





Separating Creation and Viewing?

- sometimes you just want to see an overview and not edit much
- sometimes you want to create and go through all settings





New form types?

- Wizard
- Quick-Entry
- Administrative form
- Editable Summary Section
- ...what would be feasible without the UI framework exploding?





Configuring field visibility

- maybe choices during ILIAS installation
 - Test & Assessment light only fields for simple pop quizzes
 - Test & Assessment exam-ready all the fields





Let's get started

- take a form and test if it would benefit from
 - hiding data in different ways (accordions, switchable groups, modals, subforms/-pages etc.)
 - introducing editable summary sections
 - a wizard or quick entry modal creation
- mockups and click-dummies can help judge if implementation is worth it





Takeaways

- We don't have to guess: Researchg & User Testing
- 3 Interaction Modes: Condensed prompt, Creation, Adjusting
- Some ways to improve forms are already available





Paper: tinyurl.com/ilias24-form-pr

This presentation: tinyurl.com/ilias-24-form-pres

Questions?

Ask now!

And/or come to the UI Clinic on docu.ilias.de



