PV168 GUI III

1

Swing Renderers

- toString() formats content/state of an object for internal usage
 In a debugger
 - In various logs

• Compare e.g. "Department@123def" with "112: HR"

- Renderers are intended for outputs towards the end users
 - Can render graphics on top of text (e.g. Gender)

Swing Row Filters

- Allow for omission of certain *model* rows in *view*
- Configurable typically via combo boxes or multiselect fields
 - We have introduced Either<L, R> abstraction to deal with special values (ALL etc.)

Swing Row Sorters

- Allow for changing the order of *model* rows in *view*
 - Row numbers in *view* are different from *model*!
- Needs to be synchronized with filtering for both to work correctly together
 - Pay extra attention in case both are used together
 - However, very simple set up in case of no filtering

Why does PV168 begin with GUI?

- Top-down vs. bottom-up approach
- Top-down
 - Early value for users of the application
 - Fast convergence
- Bottom-up
 - Deep dive into technical details first
 - It takes long before we can show anything to users

GUI creation process

- It starts with a feature
- Functionality is specified with UI
- UI is specified by the functionality
- Wireframes

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User Experience (UX) role

- Person responsible for *look & feel*
- Creative role
- Hard to do without talent
- Sometimes tied up too tight to product

UX vs. Developer

- Ideas can be too ambitious
- Developer wants to make it work
- UX wants to make it pleasant to use

Frontend - Backend - Full-stack

• Frontend

• mostly JS, various frameworks, CSS

- Backend
 - $\circ\,$ business logic
- Full-stack
 - both together

Accessibility

- We never know who will use our application
- Text in pictures
- Contrast

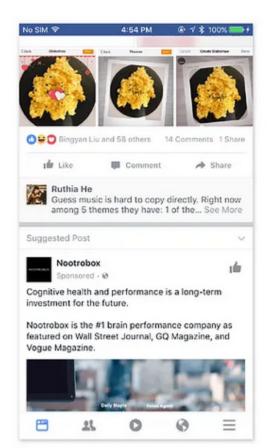
A / B testing

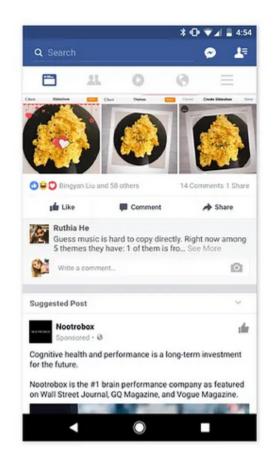
- You probably participated and you didn't even realize it
- Not really a testing
- UX utility

Dark Side of the UX

- Selling must be fast
- Ads placement
- Exclamation marks
- Red colors, danger

Patterns ...





... and anti-patterns

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Creating GUI for group project

- Use pen and paper
- Make sure the whole team is on the same page
- Keep it simple



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