A Haskell Platform for Creating Progressive Web Applications

A midterm progress report

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2/9

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2/9

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2/9

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2/9

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 - JavaScript doesn't have a monopoly on the frontend
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 - Code sharing between server and client (business logic, entities)
- Many companies use it, several contribute to OSS:
 - Obsidian Reflex, Obelisk, Rhyolite
 - Tweag Asterius, Inline-js
 - QFPL Reflex-workshop, many UI components
 - IOHK (Cardano) iohk-ops

PWA?

- New buzzword from Google
- Recent web development trend
- An almost native app
 - Load a website
 - Click "Add to home screen"
 - Use like a native application

PWA features

• Progressive Web App Checklist – Google

4/9

PWA features

- Progressive Web App Checklist Google
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 - Has "Add to home screen"
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- "Exemplary PWA":
 - Pre-rendered
 - Social share, metadata
 - Accessible
 - Full-screen mode
 - ...

PWA technologies

- Technologies:
 - Service Workers
 - Web App Manifest
 - History API
 - Web Share API
 - Network Information API
 - Credential Management API

What have I been doing?

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 - PWA developers' expectations
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- Prototypes:
 - A full-stack application
 - An offline-capable application
 - A frontend debugger toolbar
 - CI/CD for Haskell
 - ...

What haven't I been doing?

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- Regular writing
 - Blog
 - Progress reports

7/9

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- Regular writing
 - Blog
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 - Oops...

7/9

What's next?

- Must-haves:
 - Browser routing (client library)
 - Service Workers (build tool and/or client library)
 - Push notifications (server & client library)

8/9

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- Nice-to-haves:
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- Four months should be enough, right?

Wrapping up

- Thanks for listening!
- https://github.com/zarybnicky/thesis