

MICHIGAN STATE

UNIVERSITY

Project Plan

No More Yellow Screen Of Death

The Capstone Experience

Team Mozilla

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*From Students...
...to Professionals*

Functional Specifications

- Ensure Yellow Screen of Death Never Displays
- By Converting Firefox's Localization to Fluent
- Support Over 100 languages of Firefox

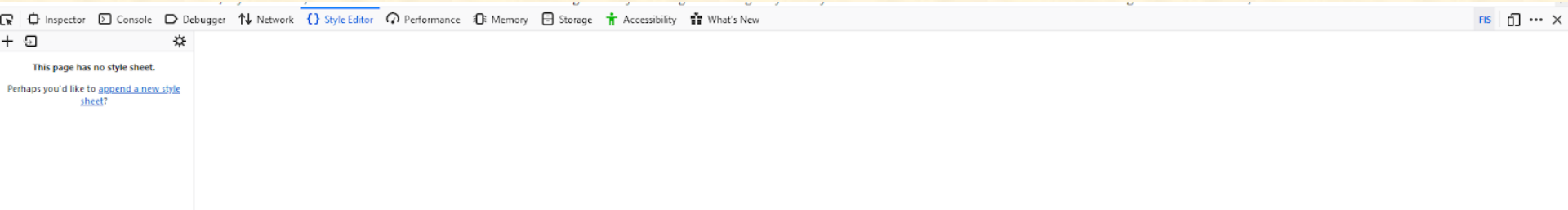
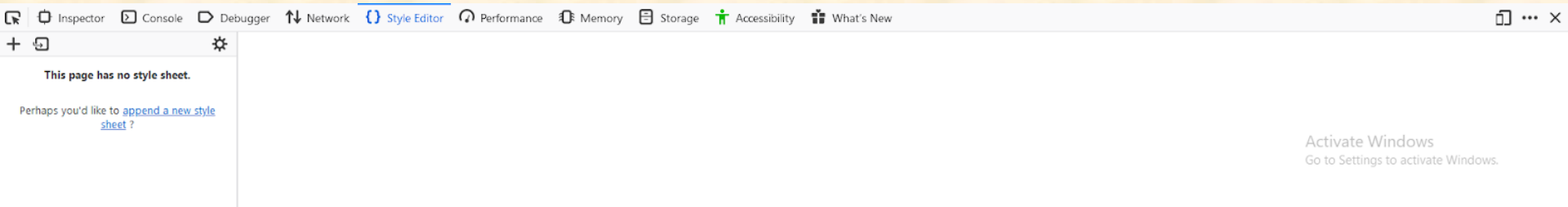


Design Specifications

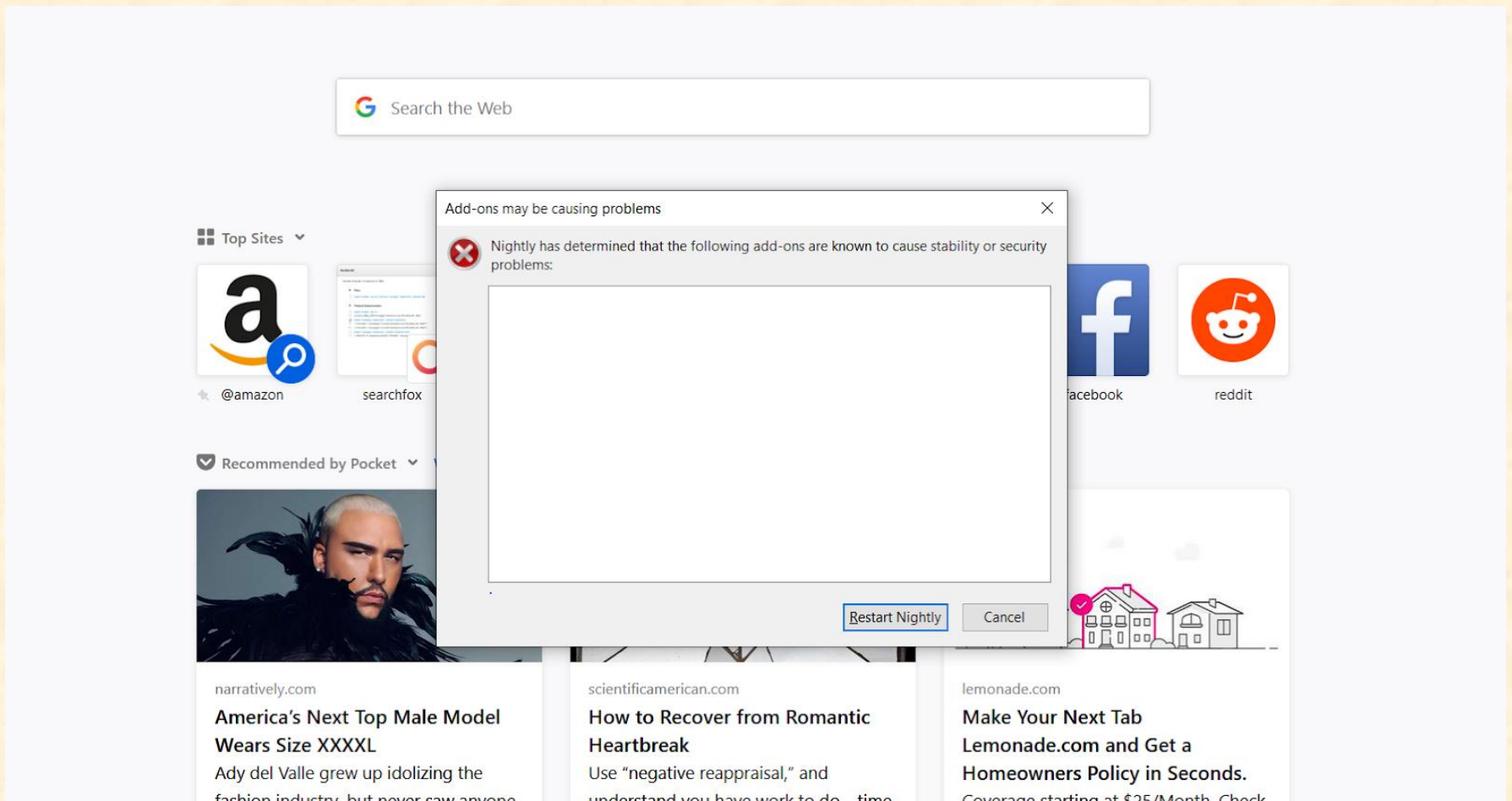
- Previous code is outdated and limited
- Asymmetric Localization (simple string -> complicated string in another language)
- Some Fluent features:
 - Plural Categories
 - Bidirectionality support
 - Easy-to-read syntax



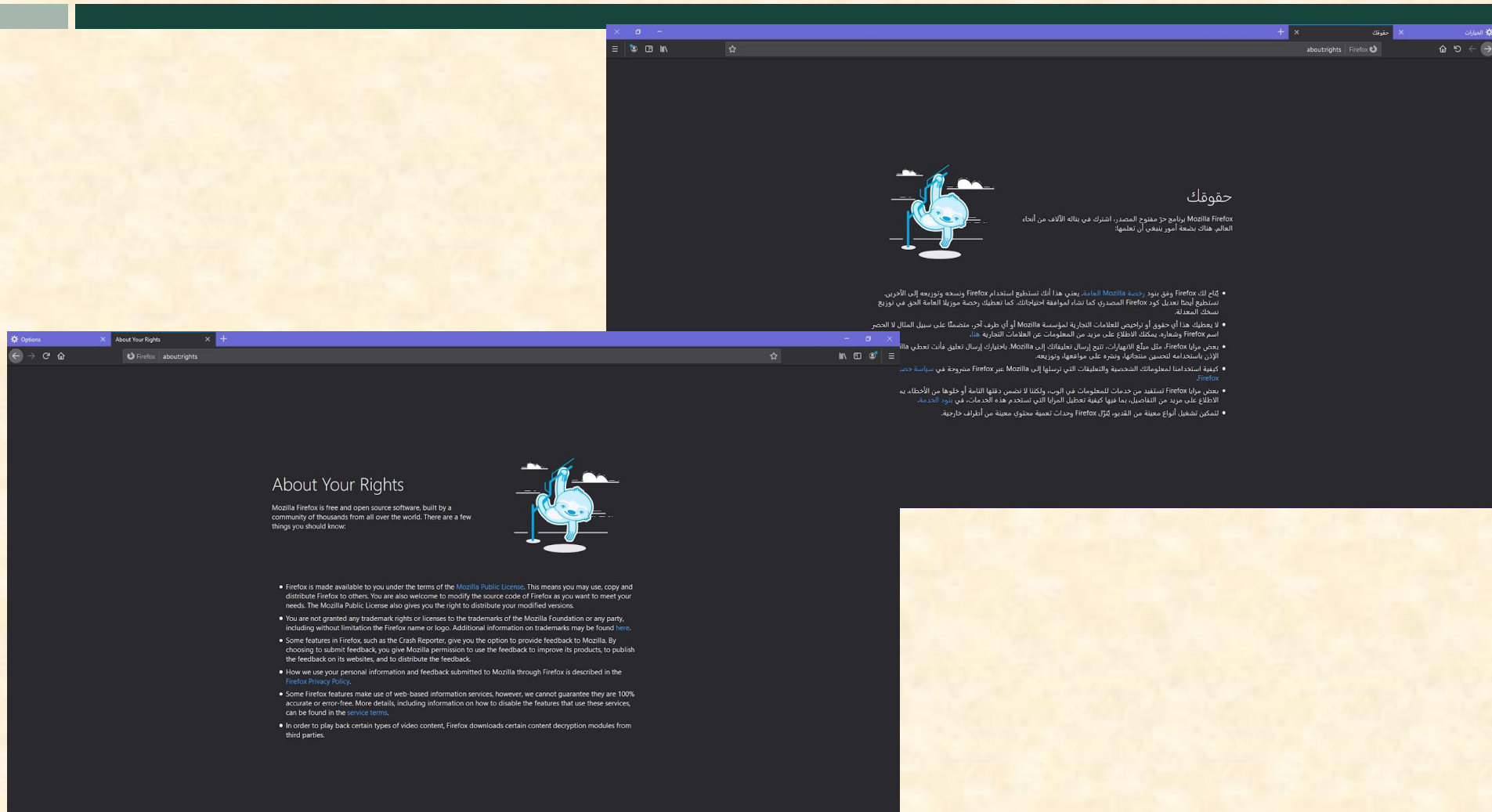
Screen Mockup: Style Editor



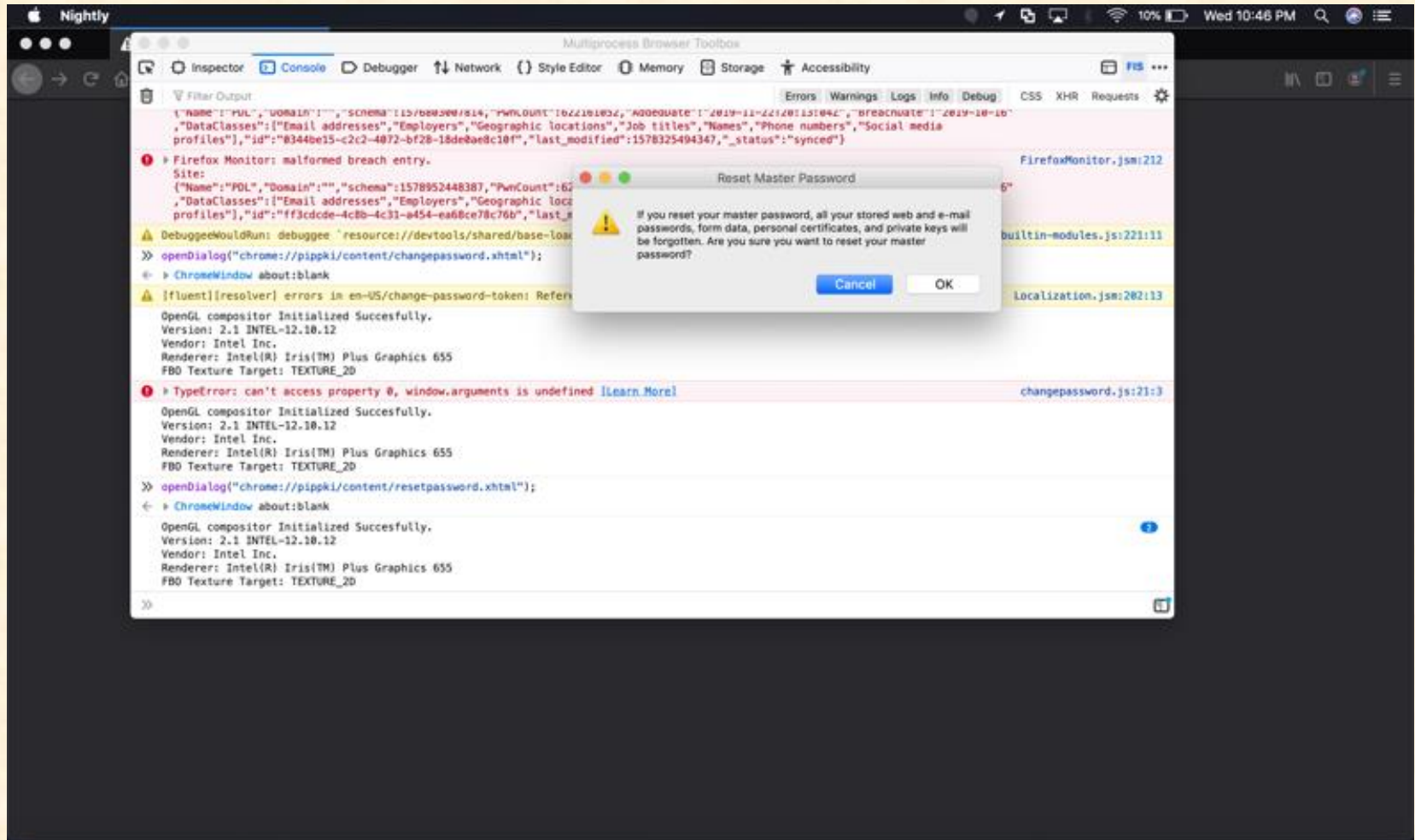
Screen Mockup: Add-ons



Screen Mockup: English-to-Arabic



Screen Mockup: Reset Password

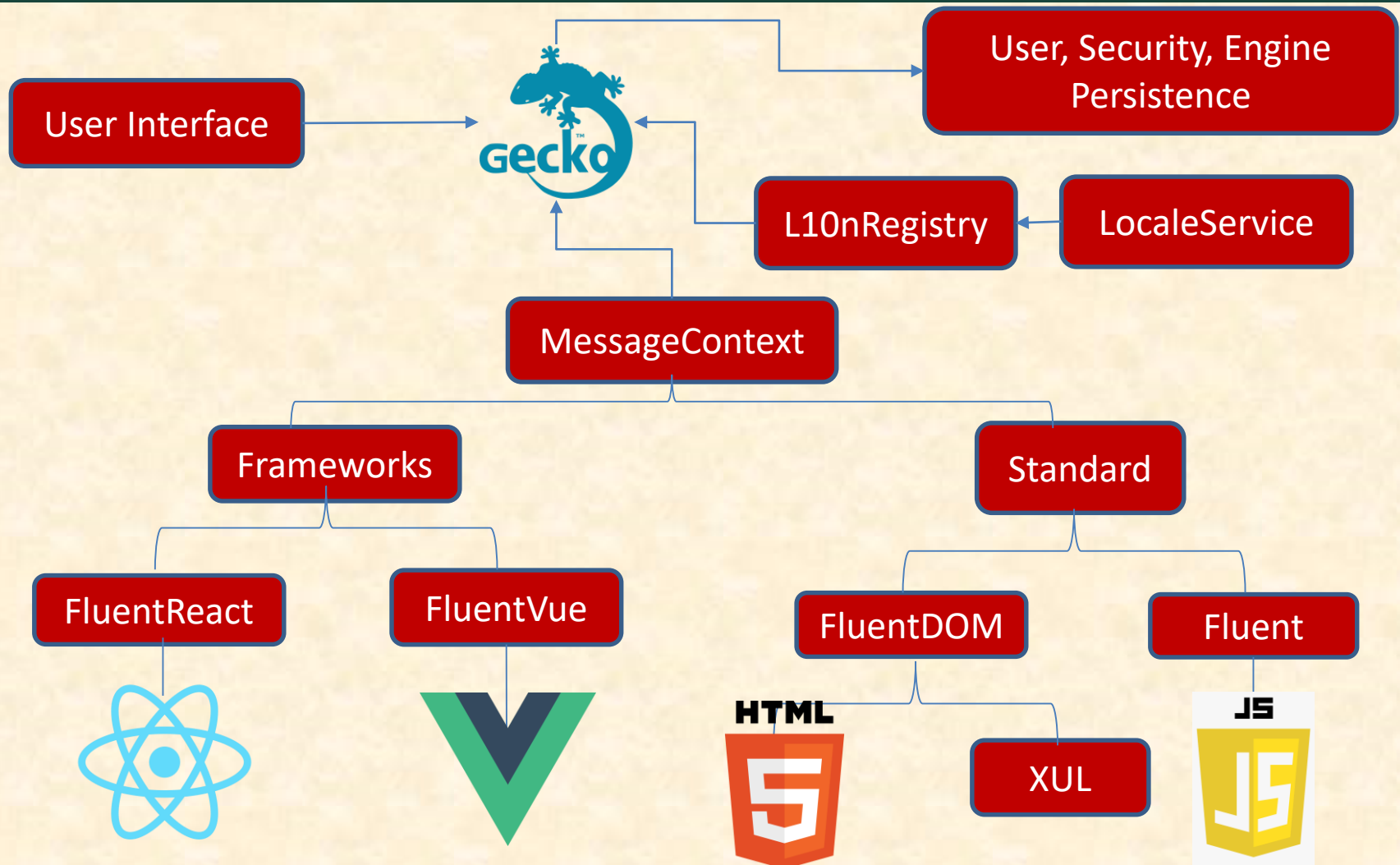


Technical Specifications

- Windows/Mac
- HTML
- Fluent
- JavaScript
- Mercurial
- Phabricator
- Python



System Architecture



System Components

- Software Platforms / Technologies
 - Firefox Nightly build
 - Visual Studio/Atom
 - Phabricator
 - Mercurial



Risks

- Breaking underlying part of codebase while creating migration script
 - The migration scripts from turning American English into other languages might run into, and break, unexpected underlying dependencies.
 - Debug then work with our mentors to try and anticipate problems beforehand. Barring that, then adjusting as we go.
- Firefox's Codebase is Massive
 - There are over 20 million lines of code for Firefox and learning to work with all the different parts might prove challenging.
 - Work through with the mentors to figure out which parts are the most crucial. Worst comes to worst can work through something with a debugger.
- Fluent is an immature technology
 - Because Fluent will be integrated across the browser, this will open many areas for edge cases.
 - We will communicate effectively with our mentors and amongst ourselves Integrating Fluent across the browser stack is complex
 - Because Fluent will be integrated across the browser, this will open many areas for edge cases.
 - We will communicate effectively with our mentors and amongst ourselves



Questions?

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