Tools/Tech: Debugging and Optimization

Néfi Ferrari  
  
  
Choose tool: Google Lighthouse tool.

Link analyzed: <https://site.churchofjesuschrist.org/study/scriptures/bofm?lang=eng>

Link to the lighthouse report: <https://shorturl.at/egjU8>

Performance (MOBILE):  
A screenshot of a computer

Description automatically generated

First Contentful Paint:

* **Main problem:** Text does not remain visible during the web front load (fonts are often large files with slow load time).  
  A screenshot of a webpage

  Description automatically generated
* **Recommendations:** Temporarily show a system font by including font-display: swap in the @font-face style
* A computer code with text

  Description automatically generatedEx:

Total Blocking Time:

* **Main problem:** JavaScript execution time (13.9s)  
  A screenshot of a computer

  Description automatically generated
* **Recommendations:**   
  - Split the JavaScript bundle to only send the code needed for the initial route when the user loads an application (Code spplitting).  
  - Remove unused code.  
  - Apply instant loading with the PRPL pattern.

Speed Index:

* **Main problem:** render process of main thread

A screenshot of a computer

Description automatically generated

# Recommendations: Optimize 3rd party JavaScript and use web workers to run JavaScript off the browser's main thread.

# Largest Contentful Paint:

# A screenshot of a computer Description automatically generatedMain problem: large text element

# Recommendations: Solve First Contentful Paint or break it into small parts.