

MR03 Develop a Formula Validator for Math Search

Background

The *MathSearch* MediaWiki extension can search for wikipages based on the formulas they contain.

MediaWiki is the technological backbone for Wikipedia.

A screenshot of a MediaWiki special page titled "Math search". The search bar contains the term "V = 4/3 pi r^3". The results section shows one result: "Project:MathSearch/TestPresent". The page content includes the formula $V = \frac{4}{3}\pi r^3$, a small diagram of a sphere, and a link to the "MathSearch" project page.

Goal

- Integrate a LaTeX validator to the MediaWiki extension Math Search (PHP), adapt GUI elements and user experience.

Tasks

- Set up a local development environment for MediaWiki extensions
- Write code which integrates the input validator and tests the functionality
- Create front-end elements which display the validation output for Math Search.

Johannes Stegmüller

Johannes.Stegmueller@fiz-karlsruhe.de



Moritz Schubotz

Moritz.Schubotz@fiz-karlsruhe.de



MR05 Improve the Software of Wikipedia

Background

MediaWiki is the software running Wikipedia. While editing Wikipedia is straight forward, editing the MediaWiki source code requires a bit more effort. In this project, you will be guided to your first contribution to the open-source project MediaWiki.

Goal

Improve the MediaWiki software in production by fixing a bug or implementing a feature requested by the community. For example

Add an integral symbol with a short horizontal bar in the middle (ƒ,ƒ̄)



[Unuaiga, Wikimedia Hackathon Barcelona 2018 \(04\), CC BY-SA 4.0](#)

Tasks

1. Understand the problem and develop an implementation plan
2. Get Community Consensus
3. Set up a local development environment
4. Develop unit and integration tests
5. Interactively improve your code according to the suggestions
6. Get your code deployed and test it in production
7. Update the documentation and issue tracking software.

Johannes Stegmüller

Johannes.Stegmueller@fiz-karlsruhe.de



André Greiner-Petter

greinerpetter@gipplab.org



Moritz Schubotz

Moritz.Schubotz@fiz-karlsruhe.de

