



Google Summer of Code

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Project & Proposal

My project in Google Summer of Code was to implement schema validation in handler params. In this project I have to introduce a framework by which handler's arguments were validated and normalized. Also after building the framework, I have enabled schema validation in some parts of the current handlers in the codebase.

My proposal for this project contains all technical details required to implement and to complete this project.

Link to proposal: [GSoC Proposal](#)

Selection Procedure

The key point I want to share is to **start early**. I also engaged with **Oppia foundation** in around october 2020 and after contributing in a few of the good-first-issues to the community, I have started preparing for the GSoC project. Following the template for writing proposals as provided by Oppia foundation I have written my proposal. The initial phase of writing a proposal requires some clarification about the scope of the project with potential mentors.

After the review process with mentors, I have submitted my proposal into the GSoC website and got selected for GSoC'21.

Community Bonding

In this phase I met a lot of other contributors and participants. This period involves further modifications in the proposal so that I will be very clear about the implementation of the project.

Coding period

In the coding period I started implementing my framework for schema validation and also enabled schema validation for some parts of the current handlers.

The entire coding phase is divided into two parts i.e., Milestone 1 & Milestone 2

Milestone 1

The task I have done in milestone 1 can be summarised as follows:

Tasks:

1. Building architecture: Creating architecture for validation is the most important task for this project. Accomplishment of architecture is done by pr's: [#13065](#), [#13264](#), [#13268](#), [#13274](#), [#13277](#)
 - a. Among all these pr's, this ([#13065](#)) is the main pr which is presenting the architecture, and all the other pr's are minor fixes.
2. Created a wiki page for providing guidance to other contributors: [here](#).
3. Created schema for all the handler args in admin.py, classroom.py and classifier.py: [#13223](#)
4. Created schema for all the handler args in moderator.py, collection_viewer.py and cron.py; [#13224](#)
5. Created schema for all the handler args in concept_card_viewer.py and contributor_dashboard.py: [#13225](#)
6. Created schema for all the handler args in collection_editor.py: [#13343](#)

Milestone 2

The task I have performed in milestone 2 are as follows:

Tasks:

1. Implement schema validation for files (creator_dashboard, learner_dashboard, learner_playlist) [#13355](#)
2. Fix to normalize the value when using default_value [#13370](#)
3. Implement schema validation for files (editor, library) [13422](#)
4. Implement schema for (email_dashboard, feedback) [#13450](#)
5. Implement schema validation for files (improvements, features, review_tests) [#13456](#)
6. Implement schema validation for files (custom_landing_pages, pages) [#13478](#)
7. Implement schema validation for files (platform_feature, practice_session) [#13481](#)

Submission

After completion of each milestone we have to submit our code for external evaluation so that any other person will take a complete look over the work we have done and provide feedback based on the Code quality, time commitment, and other community behaviour.

Experience gained

GSoC helped me in various domains to learn and grow. I have learned to effectively communicate with other contributors, expressing myself in any discussion and a lot of other new technologies like backend unit testing, linting, etc.

Thank to community

In achieving all these through Google Summer of Code I would like to thank my mentor [Rohit](#) who helped me at every point when I got stuck. I also want to express my special thanks to other community members: [Vojtech](#), [Sandeep](#), [Sean](#), etc.

Thank you,
[Nikhil Agarwal](#)