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# Problem Statement + Scope of This Doc

*What problem are you trying to solve? Why does this problem matter to Oppia or Oppia’s users, and why is it worth expending effort on? Give background as needed, and then lead into an overview of what the scope of this doc is.*

*Ideally, you should be able to tie the problem back to* [*Oppia’s overall strategy*](https://github.com/oppia/oppia/wiki/Oppia's-Mission) *with a clear and cogent argument (i.e. Oppia wants to do XXX, hence we need to do YYY, hence we need this feature). This will help ensure that the work that you’re proposing to do is meaningful for Oppia's users. On the other hand, if you can’t justify why it is worth spending effort on addressing this problem, consider picking a different, more impactful problem to tackle instead.*

*Some examples:*

* *Learners do not know how long an exploration is likely to take, and therefore don’t start playing it because they don’t know how much time they need to commit to it. This document describes a feature for showing the mean expected time on exploration summary cards based on data gathered from student playthroughs.*
* *The exploration editor has a pop-up tutorial, but users do not find it helpful. [Explain what data shows this.] This document presents an approach for introducing a better tutorial, and also outlines a plan for comparing its effectiveness with the existing one.*

# Product Design\* (if user-facing)

*Explain who the users are for the feature you’re planning to build. Outline the most important use cases and user journeys for these users, and provide enough information to describe what each user journey “looks like”. Make sure to describe these user journeys in terms of what the user wants to accomplish, rather than the technical features. Include mocks, diagrams, screenshots and/or user flows as needed to explain your ideas clearly.*

# Technical Design

## Architectural Overview\* (if large feature)

*Describe how what you’re implementing is broken down across the different layers of the codebase (storage, domain, controller, frontend).*

***Important****: If you are adding or changing storage models, be sure to include details on how you are handling Takeout functionality (user should be able to export data associated with their profile) and Wipeout functionality (user should be able to delete data corresponding to their profile).*

## Implementation Approach

## Special Considerations\*

*In this section, include any specific call-outs that you think should have additional reviewer consideration (e.g. something that may have a major performance impact on Oppia, or may require refactors).*

## Alternatives Considered\*

*Enumerate alternative solutions that were considered, and explain why you picked the ones documented in the implementation approach above instead.*

## E2E testing plan\*

*For user-facing features, all core user journeys should be covered via Protractor tests. Enumerate these user journeys here.*

# Milestones

*What are the independent pieces of the project and what happens in each? Include plans for automated tests (is there any new testing infrastructure needed for this project?), including ensuring there is sufficient coverage from the automated Protractor e2e testing flows.*

# Additional Considerations\*

## Privacy\*

*Does this feature collect new user data or change how user data is collected? See the* [*Good Stewards document*](https://docs.google.com/document/d/1eRD0fz-vbgkGGKisvmDm08yJq4167Kaf-5-W8XBMqk0/edit) *and specifically the section for* [*Oppia Contributors*](https://docs.google.com/document/d/1eRD0fz-vbgkGGKisvmDm08yJq4167Kaf-5-W8XBMqk0/edit#heading=h.hmiz2dgkv7a0) *for things to consider when filling out this section.*

## Security\*

*Does this feature provide any new opportunities for users to gain unauthorized access to user data or otherwise impact other users' experience on the site in a negative way?*

## Accessibility\* (if user-facing)

*List the ways in which your feature is accessible for a wide audience of users, including users who have partial or full blindness, deafness, or any other disorder which may inhibit their ability to use the feature or platform.*

## Documentation Changes\*

*List the changes (if any) that should be made to the Oppia wiki to help support this feature or provide additional guidance to maintainers of Oppia instances. Types of projects that should include documentation changes:*

* *Complex migrations that require* [*custom steps*](https://github.com/oppia/oppia/wiki/Migration-Instructions)
* *Infrastructural changes that require updates to the developer-facing instructions (e.g. new APIs added to our Protractor testing library that can help improve the reliability of e2e tests)*

## Ethics\*

*Are there any ethical considerations that should be taken into account when deciding whether or not to proceed with this feature?*