Section 2: About Your Project

Project Details

Project title	Improve Accessibility
Project size	Medium (~175 hours)
Why did you choose this project?	I chose to work on this project due to my strong interest in web development and my interest in working in public and giving back to society. I am thrilled at the chance to contribute to this mission by enhancing the accessibility of the platform. Additionally, this project will allow me to expand my skill set, make a positive impact, and contribute to a project that is solving a real-world problem.

Project Timeframe

Coding period	● I will adhere to the above deadlines.
Planned time commitment	● I have classes till 10th July, so in this timeframe I will be able to put around 20 hours per week. ● After the exams are completed (by 10 July approx), I will be able to put in around 30 hours per week. ● I believe I can finish the project within this timeframe. However, I am

	prepared to modify my work schedule as necessary and will work harder to meet deadlines if the project requires it.
What other obligations might you need to work around during the summer?	● My college exams will start from 26th June, but the exact dates have not been announced yet. ● After the end semester exams (which will be completed by 10 July approx), I will be having holidays for 7-8 weeks.

Communication Channels

I can commit to sending daily updates to my mentor by email, each day I work during the GSoC period.	● Yes
In addition to the above: how often, and through which channel(s), do you plan on communicating with your mentor?	I want to stay in touch with my mentor on a regular basis through Google Chat and email. In addition, I can also do Google Meet meetings two to three times per week to discuss my progress, any problems, and solutions.

Section 3: Proposal Details

Problem Statement

Link to PRD (or N/A if there isn't one)	N/A
Target Audience	Learners who face accessibility issues when using Oppia as a part of their learning process due to having any form of **disabilities**, who use screen readers to navigate through the pages and learners with mobility impairments who use keyboard navigation to interact with the lessons are the target audience for this project.
Core User Need	● Learners with disabilities who use assistive tools need to have an accessible learning experience with Oppia. ● To have an accessible learning experience, learners with any disability need the following functionalities in all the learner side pages in Oppia: 　○ Focus management: All essential elements on the pages are

	focusable using the keyboard, and a clear visual indicator is provided to show which element is currently in focus. ○ Color contrast: All the texts have sufficient contrast with their background, so that they are readable by the learners with low vision. ○ Headings: All learner pages have proper heading tags to help the screen readers navigate the pages. ○ ARIA attributes: All the learner pages have appropriate ARIA attributes to assist learners using screen readers.
What goals do we want the solution to achieve?	● Fix the already filed accessibility issues and prioritize fixing them based on their impact on the learner experience. ● Improve keyboard navigation on Oppia pages to ensure that the focus does not go out of the screen and there are clear consistent border/outline indicators for selected elements. ● Improve the color contrast between the element and background in different states like hover, focus throughout all learner-facing pages to improve visual clarity abiding w3 contrast ratio guidelines. ● Ensure all learner-facing pages contain proper heading tags that follow w3 heading guidelines and have appropriate ARIA attributes to assist learners using screen readers. ● Run lighthouse tests on learner-facing pages, identify and solve the issues to bring the test score to 1.0. ● Add the documentation on Oppia's wiki about debugging Lighthouse tests (#126).

Section 3.1: WHAT

This section enumerates the requirements that the technical solution outlined in "Section 2: HOW" must satisfy.

Key User Stories and Tasks

#	Title	User Story Description (role, goal, motivation) *"As a …, I need …, so that …."*	Priority[1]	List of tasks needed to achieve the goal (this is the "User Journey")	Links to mocks / prototypes, and/or PRD sections that spec out additional requirements.
1	Accessibility with Screen readers	As a visually disabled learner, I must be able to navigate through the pages and learn by using screen readers	Must have	Learners(with any form of disability) visit the Oppia home page.	N/A
				Learners will use screen readers (Chromevox) to interact with the website.	N/A

		without encountering any challenges.		Learners log in to Oppia.	N/A
				Learners can navigate around the pages using screen readers (Chromevox) and interact with the lessons, without any accessibility challenges.	N/A
2	Keyboard navigation and highlighting of selected elements	As a learner with a disability (particularly visual), I must have smooth keyboard navigation on Oppia pages and there must be clear consistent border/outline indicators for selected elements throughout all pages.	Must have	Learners (with any form of disability) visit the Oppia home page.	N/A
				Learners will use keyboard navigation to interact with the website and be able to clearly see which element of the page is currently in focus, with a clear outline.	N/A
				Learners log in to Oppia.	N/A
				By using keyboard navigation, learners can navigate around the pages and interact with the lessons, such that all essential elements get focused in logical order and provide a visual indication of the selected element through clear outlines.	N/A
3	Color contrast	As a learner with a visual disability, I need distinctive color contrast between the element and background in different states like hover, focus throughout all learner-facing pages to have visual clarity.	Should have	Learners (with visual form of disability) visit the Oppia website.	Link to mocks
				Learners will use keyboard navigation to interact with the website.	
				Learners can clearly differentiate the text over the background while navigating during focus or hover state.	
4	Lighthouse test debugging documentation	As a contributor to Oppia, I should have documentation about debugging Lighthouse	Could have	Contributors find any issue and submit a PR.	Accessibility talk by Jim Zhan
				Their changes via PR causes the lighthouse accessibility tests to fail.	

		tests, so that I can effectively troubleshoot accessibility issues.		They refer to the lighthouse test debugging doc to resolve the problem.	

Technical Requirements

Additions/Changes to Web Server Endpoint Contracts

No new additions/changes are needed to be made to the web server endpoints

Calls to Web Server Endpoints

No new calls are needed to web server endpoints.

UI Screens/Components

No new UI screens/Components are required.

Data Handling and Privacy

No new data handling and privacy required.

Other Requirements

No additional requirements.

Section 3.2: HOW

Existing Status Quo

- Accessibility issues that are already been filed

Currently, there are existing accessibility issues filed that need to be addressed to improve the overall accessibility. These issues include problems with keyboard navigation,keyboard focus management, color contrast and screen readers.

🔴 High-priority
🟡 Priority
🟢 Backlog

No.	Issue related to	Issue link
1	Interactions	#16890 🔴
		#16877 🔴
		#16880 🟢
		#16878 🟢
		#13788 🟢
		#16875 🟢
		#18010 🟢
2	Story player	#18145 (Revisions tab) 🔴
		#18115 🟡
		#18116 (Lessons tab) 🟡
		#18120 (Lessons tab) 🟡
		#17211 🟢
		#17948 🟢
		#17212 🟢
		#17208 🟢
		17774 🟢
3	Exploration player	#18156 🔴
		#16857 🟡

		#17000 🟡	
		#16997 🟡	
		#16995 🟡	
		#16994 🟡	
		#18151 🟡	
		#16913 (Report exploration) 🟢	
		#16923 (Report exploration) 🟢	
		#16982 (Lesson info) 🟢	
		#16977 (Lesson info) 🟢	
		#16886 (Lesson info) 🟢	
		#18118 🟢	
		#16966 🟢	
		#15466 🟢	
		#16896 🟢	
		#16897 🟢	
		#16898 🟢	
		#16836 🟢	
		#16839 🟢	
		#16840 🟢	
		#15923 🟢	
		#16893 🟢	
		#16856 🟢	
		#18119	
4	Creator dashboard	#18202	
		#17861 🟢	
5	Exploration editor	#17939 🟡	

		#17833 🟡
		#17835 🟡
		#17994 🟡
		#17944 🟡
		#13461 🟡
		#17925 🟢
		#878 🟢
		#16021 🟢
		#17924 🟢
		#17921 🟢
		#17941 🟢
		#18034 🟢
		#18032 🟢
		#18033 🟢
		#17830 🟢
		#17837 🟢
		#17828 🟢
		#16895 🟢
		#18031 🟢
		#17863 🟢
		#17961 🟢
		#17943 🟢
		#17805 🟢
		#18199
6	Topic and skills dashboard page	#18089 🟡
		#18086 🟢

		#10666 🟢	
		#18076 🟢	
		#17026 🟢	
		#18218	
7	Topic editor page	#18043 🟡	
		#18087 🟢	
		#18108 🟢	
		#18088 🟢	
		#18045 🟢	
8	Skill editor page	#18091 🟡	
		#18103 🟡	
		#18090 🟢	
		#18217	
9	Contributor dashboard	#17121 🟡	
		#17080 (Submit questions tab) 🟡	
		#17079 (Submit questions tab) 🟡	
		#17073 (Submit questions tab) 🟡	
		#17065 (Submit questions tab) 🟡	
		#18172 (Submit questions tab) 🟡	
		#18189 (Review translations) 🟡	
		#18187 (Review translations) 🟡	
		#17182 (Review translations) 🟡	
		#18180 (Translate text) 🟡	
		#17128 (Translate text) 🟢	
10	Learner dashboard	#16960 🟢	
		#16959 🟢	

11	Profile page	#16979 🟢
		#16981 🟢
12	Volunteer page	#13668 🟢
13	Preferences page	#17037 🟡
		#17035 🟢
		#17029 🟢
		#17033 🟢
		#17028 🟢
		#17026 🟢
		#17804 🟢
		#17008 🟢
14	Community library	#16818 🟢
		#16827 🟢
		#16815 🟢
		#16817 🟢
15	Others	#18296 🟡
		#3082
		#16828 (Navbar)
		#16825 (Navbar)

*Note: The data is as per 28 May 2023

- The accessibility score of Oppia's learner-facing pages varies between **78 and 100**, which is not optimal and needs improvement. To provide an inclusive learning experience, it is important to ensure that all learner-facing pages have a Lighthouse Accessibility score of 100. The table below displays the Lighthouse test audits for the learner-facing pages.
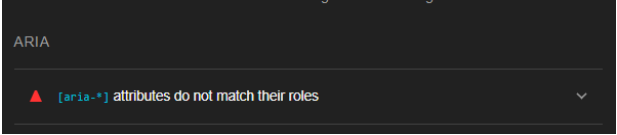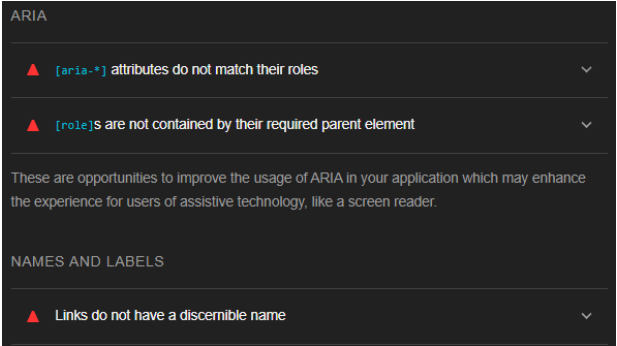
No.	Page	URL	Lighthouse accessibility score		Issues with the page
			Mobile	Desktop	
1	Home Page	/	100	85	**ARIA** ⚠ [aria-*] attributes do not match their roles ⌄ ⚠ [role]s are not contained by their required parent element ⌄
2	Learner Dashboard	/learner-dashboard	84	78	**ARIA** ⚠ [aria-*] attributes do not match their roles ⌄ ⚠ [role]s are not contained by their required parent element ⌄ These are opportunities to improve the usage of ARIA in your application which may enhance the experience for users of assistive technology, like a screen reader. **NAMES AND LABELS** ⚠ Image elements do not have [alt] attributes ⌄ These are opportunities to improve the semantics of the controls in your application. This may enhance the experience for users of assistive technology, like a screen reader.

3	Community Library	/community-library	93	82	ARIA ⚠ [aria-*] attributes do not match their roles ⌄ ⚠ [role]s are not contained by their required parent element ⌄ ⚠ [aria-hidden="true"] elements contain focusable descendents ⌄ These are opportunities to improve the usage of ARIA in your application which may enhance the experience for users of assistive technology, like a screen reader. CONTRAST ⚠ Background and foreground colors do not have a sufficient contrast ratio. ⌄ These are opportunities to improve the legibility of your content.
4	Learn Topics	/learn/math	93	86	ARIA ⚠ [aria-*] attributes do not match their roles ⌄ ⚠ [role]s are not contained by their required parent element ⌄
5	Lessons tab	/learn/math/<lesson>/story	90	83	ARIA ⚠ [aria-*] attributes do not match their roles ⌄ ⚠ [role]s are not contained by their required parent element ⌄ These are opportunities to improve the usage of ARIA in your application which may enhance the experience for users of assistive technology, like a screen reader. NAMES AND LABELS ⚠ Links do not have a discernible name ⌄ These are opportunities to improve the semantics of the controls in your application. This may enhance the experience for users of assistive technology, like a screen reader.

6	Practice tab	/learn/math/<lesson>/practice/<session>	87	87	ARIA ⚠ [aria-*] attributes do not match their roles ⚠ [role]s are not contained by their required parent element
7	Revision tab	/learn/math/<lesson>/revision/<revision type>	92	85	ARIA ⚠ [aria-*] attributes do not match their roles ⚠ [role]s are not contained by their required parent element
8	Profile Page	/profile/<username>	92	85	ARIA ⚠ [aria-*] attributes do not match their roles ⚠ [role]s are not contained by their required parent element
9	Contact Us Page	/contact	92	85	ARIA ⚠ [aria-*] attributes do not match their roles ⚠ [role]s are not contained by their required parent element
10	Exploration player page	/explore/<explorationID>	Vary between 85 to 92	Vary between 82 to 92	Varying problems: ● List item is not there in ul of ol. ● Heading sequence is not in order. ● Image not having an alt text.

11	Collection page	/collection/<collection id>	82	82	ARIA ⚠ [aria-*] attributes do not match their roles ⌄ These are opportunities to improve the usage of ARIA in your application which may enhance the experience for users of assistive technology, like a screen reader. NAMES AND LABELS ⚠ Image elements do not have [alt] attributes ⌄ These are opportunities to improve the semantics of the controls in your application. This may enhance the experience for users of assistive technology, like a screen reader. NAVIGATION ⚠ Heading elements are not in a sequentially-descending order ⌄
12	Preferences Page	/preferences	94	89	ARIA ⚠ [aria-*] attributes do not match their roles ⌄ ⚠ [role]s are not contained by their required parent element ⌄
13	Creator dashboard page	/creator-dashboard	92	85	ARIA ⚠ [aria-*] attributes do not match their roles ⌄ ⚠ [role]s are not contained by their required parent element ⌄

14	Exploration editor	/create/<explorationID>	93	87	
15	Topic and skills dashboard	/topics-and-skills-dashboard	100	93	
16	Skill editor	/skill_editor/<skillID>	100	98	
17	Topic editor	/topic_editor/<topicID>	93	89	

18	Story editor	story_editor/<storyID>	93	93	
19	Story player	learn/math/<topic>/story	89	83	
20	Signup page	/signup	100	100	-
21	Contributor dashboard	/contributor-dashboard	100	100	-

- Currently, the lesson tiles have a contrast ratio that goes as low as 2.13:1, which is way less than the standard set by WCAG, i.e., 4.5:1. This is causing the title on the tile to be difficult to read by learners who are visually challenged.

Solution Overview

To improve the accessibility, my proposed solution involves a two-fold approach.

First, I will address the existing accessibility issues (a11y) that are filed.This will involve fixing problems related to keyboard navigation, focus management, color contrast, heading related issues and more (mentioned in the table). Some of these a11y issues have been assigned to contributors. If any contributors are stuck or need additional support, I will be available to assist them while I solve the unassigned issues.

Second, I will use Lighthouse to test all learner-facing pages on Oppia and bring their accessibility scores to 100. This will involve analyzing the Lighthouse test audits for each learner facing page(listed here) and making the necessary changes to improve their accessibility score. This will include adding alt text for images, ensuring proper semantic structure for heading tags, ensuring that the aria-roles are contained by their required parent.

In addition, I will address the issue of low color contrast ratio of the exploration background and the title text, which is not following the WCAG guidelines, this may cause the learners who have visual disabilities to face difficulties while reading the title. Currently, the contrast ratio of the

text against the background is much less than the required 4.5:1 for visual presentation of text ([Mocks](#)).

Additionally, I will be adding documentation on how to debug Lighthouse tests ([#126](#)) to the Oppia documentation to help contributors better understand the Lighthouse audit process and troubleshoot any potential issues that may arise during testing.

Third-Party Libraries

No third-party libraries are needed.

"Service" Dependencies

No service dependencies are needed.

Impact on Other Oppia Teams

There would be no impact on other Oppia teams as no new features are added or removed.

Key High-Level and Architectural Decisions

Decision 1: Not implementing high color contrast theme

Initially, I had considered adding a high color contrast theme to Oppia to further enhance its accessibility. However, upon further consideration, I realized that students who require high contrast themes may already be using extensions available on the Chrome Web Store to meet their accessibility needs.

As a result, I have decided to prioritize addressing the existing accessibility issues and improving the Lighthouse Accessibility scores. I believe that this approach will have a greater impact on improving the overall accessibility of Oppia for all learners.

Risks and mitigations

As this project primarily focuses on improving accessibility, there are no significant risks associated with this project.

Implementation Approach

Storage Model Layer Changes

The storage model layer will not be changed.

Domain Objects

The domain objects will not be changed.

User Flows (Controllers and Services)

The user flow will not be changed in this approach.

Web frontend changes

Currently there is low color contrast ratio of the exploration background and the title text, which is not following the WCAG guidelines, this may cause the learners who have visual disabilities to face difficulties while reading the title. At present, the contrast ratio of the text against the background is much less than the required 4.5:1 for visual presentation of text. Link to Mocks for the color contrast of the exploration background and the title text.

Documentation changes

I plan to add documentation on how to debug Lighthouse tests (#126) to help contributors better understand the Lighthouse audit process and troubleshoot any potential issues that may arise during testing. By doing so, I hope to make it easier for contributors to contribute to future accessibility improvements on Oppia.

I will be taking help from the slides shared in the Accessibility talk by Jim Zhan. These slides provide useful insights on how to test and debug accessibility issues.

Testing Plan

E2e testing plan

In this project, my aim is to improve the accessibility of Oppia's learner-facing pages + the Exploration Editor and all Interaction Editors. My goal is to achieve a Lighthouse Accessibility score of 1.0 for these pages, ensuring a highly accessible learning experience for all users and improve the creator experience and minimizing a11y errors and ideally bringing them to zero.

To achieve this, I will be utilising both automated and manual testing methods. For automated testing, I will run Lighthouse tests to assess the accessibility of the pages and strive to achieve a Lighthouse Accessibility score of 1.0. Additionally, I will make use of the axe DevTools to perform manual testing and identify any accessibility bugs that may have been missed by automated tools.

In terms of manual testing, I will thoroughly navigate through the pages, interact with various elements, and carefully examine the user experience and, in each PR, show a comprehensive video demonstrating full keyboard and screenreader accessibility. This will help me identify any accessibility issues that require attention and ensure a comprehensive evaluation.

Sr no.	Test name	Pages	Steps	Expectation
1	Automated testing (using Lighthouse and axe DevTools)	- Home Page - Learner Dashboard - Community Library - Preferences Page - Learn Topics - Profile Page - Exploration player page - Exploration editor page - Collection page - Contact Us Page - Creator dashboard	**Step 1:** Install axe DevTools from chrome webstore (can also use wave extension as an alternative) **Step 2:** Start localhost **Step 3:** Navigate to the respective page **Step 4:** Go to inspect and axe devTools tab **Step 5:** In the overview sub tab the total issues with the page will be shown. **Step 6:** Fix all the issues. **Step 7:** Now we	The lighthouse test scores for each page must be 100.

			have to check for mobile screens. So in the inspect tab select any mobile device.	
		- Revision tab		
		- Practice tab		
		- Lessons tab	**Step 8:** Then repeat from **step 3 - 6**	
		- Topic and skills dashboard		
		- Skill editor	**Step 9:** Run the [lighthouse test](#) for the page in Desktop setting (**Note:** Make sure your browser is in full screen)	
		- Topic editor		
		- Story editor		
		- Signup page		
		- Contributor dashboard	**Step 10:** Analyse the issue with the page and solve them.	
		- Story player		
			Step 11: Now run the [lighthouse test](#) for mobile setting.	
			Step 12: repeat step **10**	
2	Manual testing (navigating the page and interacting with various elements)	- Home Page	**Step 1:** Start localhost	When the screen reader is on, content is read out loud in a logical order and able to interact with the lessons without facing any difficulties.
		- Learner Dashboard	**Step 2:** Navigate to the respective page	
		- Community Library	**Step 3:** Turn off your computer screen, or adjust your environment so that you're not	
		- Preferences Page		
		- Learn Topics		

		- Profile Page - Exploration player page - Exploration editor page - Collection page - Contact Us Page - Creator dashboard - Revision tab - Practice tab - Lessons tab - Topic and skills dashboard - Skill editor - Topic editor - Story editor - Signup page - Contributor dashboard - Story player	looking at it while you're doing the navigation. Use tab key to navigate through the page (To avoid missing any of the user journeys, take the help of this [table](#))	
			Step 4: Fix the issues if: - the tab focus is out of order - the focus is not visible clearly. - The screen reader is not accurately reading elements in the correct order	

Implementation Plan

Milestone Table (include both PRs and other actions that need to be taken prior to launch)

Milestone 1

Key objective for this milestone:
For milestone 1, the key objective is to prioritize fixing all the accessibility issues that are related to the learner dashboard, creator dashboard, Story player, contributor dashboard, home page, topic and skills dashboard, topic editor, all interactions and profile page. Additionally, I aim to improve the accessibility score of all these pages by achieving a score of 100 on Lighthouse tests by solving all the lighthouse issues and making these pages fully accessible. Please note that I won't be doing the backend part. This project is solely focused on the frontend, and all the interactions will be considered, except the image input interaction.Additionally, I will add documentation for debugging Lighthouse test ([#126](#126)).

No.	Description of PR / action	Issues fixed	Target date for PR creation	Target date for PR to be merged
1	Fix the issues related **Learner dashboard**	- [#16960](#16960) - [#16959](#16959)	31 May	5 June
2	**Learner dashboard** - Change the minimum Lighthouse score threshold to 100, make the page fully accessible, fully achieve AA standard on axe, and achieve AAA standard on axe except for colour changes which need design help (which should be added to a document to be shared with designers)	-	3 June	9 June
3	Fix the issues related **Creator dashboard**	[#18202](#18202) [#17681](#17681)	8 June	13 June
4	**Creator dashboard** - Change the minimum Lighthouse score threshold to 100, make the page fully accessible, fully achieve AA standard on axe, and achieve AAA standard on axe except for colour changes which need design help (which	-	11 June	16 June

	should be added to a document to be shared with designers)			
5	Fix the issues related to **Story player**	- #18145 - #18115 - #18116 - #18120 - #1721 - #17948 - #17212 - #17208 - #17774	13 June	18 June
6	**Story player** - Change the minimum Lighthouse score threshold to 100, make the page fully accessible, fully achieve AA standard on axe, and achieve AAA standard on axe except for colour changes which need design help (which should be added to a document to be shared with designers)	-	16 June	21 June
7	Fix issue in math classroom page	- #17207	17 June	21 June
8	Fix the issues related to **Contributor dashboard**	- #17121 - #17080 - #17079 - #17073 - #17065 - #18172 - #18189 - #18187 - #17182 - #18180 - #17128	19 june	24 June
9	**Contributor dashboard** - Change the minimum Lighthouse score threshold to 100, make the page fully accessible, fully achieve AA standard on axe, and achieve AAA standard on axe except for colour changes which need design help (which should be added to a document to be shared with designers)	-	22 June	27 June
10	Add documentation on how to debug Lighthouse tests	#126	25 June	30 June

11	Fix issues with the Navbar	- 16825 - 16828	27 June	2 July
12	**Home page**- Change the minimum Lighthouse score threshold to 100, make the page fully accessible, fully achieve AA standard on axe, and achieve AAA standard on axe except for colour changes which need design help (which should be added to a document to be shared with designers)	-	28 june	3 July
13	Fix the issues related to **interactions**	- #16890 - #16877 - #16880 - #16878 - #17993 - #16875 - #13788 - #18010	1 July	6 July
14	Make all **interactions** fully accessible	-	3 July	8 July
-	**Product manager demo – 4 July**	-	-	-
15	Fix the issues related to **Topic editor page**	- #18043 - #18087 - #18108 - #18088 - #18045	5 July	10 July
16	**Topic editor page** - Change the minimum Lighthouse score threshold to 100, make the page fully accessible, fully achieve AA standard on axe, and achieve AAA standard on axe except for colour changes which need design help (which should be added to a document to be shared with designers)	-	7 July	12 July
17	Fix the high-priority issue in **Exploration Player**	- #18156	9 July	13 July
18	Fix the issues related to **Profile page**	- #16979 - #16981	10 July	13 July
19	**Profile page** - Change the minimum Lighthouse score threshold to 100, make	None	11 July	14 July

the page fully accessible, fully achieve AA standard on axe, and achieve AAA standard on axe except for colour changes which need design help (which should be added to a document to be shared with designers)	

Milestone 2

Key objective for this milestone:

In milestone 2, my key objective is to fix all the accessibility issues that are related to the community library page, preferences page, exploration editor page, skill editor and exploration player page. And I will run Lighthouse tests on all these and bring their scores to 1.0. The current accessibility scores of the pages are listed here .

No.	Description of PR / action	Prereq PR numbers	Target date for PR creation	Target date for PR to be merged
1	Fix the issues related to **Exploration player**	- #18156 - #16857 - #17000 - #16997 - #16995 - #16994 - #18151 - #16913 - #16923 - #16982 - #16977 - #16886 - #18118 - #16966 - #15466 - #16896 - #16897 - #16898 - #16836 - #16839 - #16840 - #18119 - #15923 - #16893	27 July	1 August

		- [#16856](#)		
2	**Exploration player** - Change the minimum Lighthouse score threshold to 100, make the page fully accessible, fully achieve AA standard on axe, and achieve AAA standard on axe except for colour changes which need design help (which should be added to a document to be shared with designers)	-	2 August	7 August
3	Fix the issues related to **Community library**	- [#16818](#) - [#16827](#) - [#16815](#) - [#16817](#)	5 August	10 August
4	**Community library** - Change the minimum Lighthouse score threshold to 100, make the page fully accessible, fully achieve AA standard on axe, and achieve AAA standard on axe except for colour changes which need design help (which should be added to a document to be shared with designers)	-	7 August	12 August
5	Fix the issues related to **Preferences page**	- [#17037](#) - [#17035](#) - [#17029](#) - [#17033](#) - [#17028](#) - [#17026](#) - [#17804](#) - [#17008](#)	10 August	15 August
6	**Preferences page** - Change the minimum Lighthouse score threshold to 100, make the page fully accessible, fully achieve AA standard on axe, and achieve AAA standard on axe except for colour changes which need design help (which should be added to a document to be shared with designers)	-	13 August	18 August
7	Fix the issues related to **Skill editor**	- [#18091](#) - [#18103](#) - [#18090](#) - [#18217](#)	16 August	21 August

8	**Skill editor** - Change the minimum Lighthouse score threshold to 100, make the page fully accessible, fully achieve AA standard on axe, and achieve AAA standard on axe except for colour changes which need design help (which should be added to a document to be shared with designers)	-	18 August	23 August
9	Fix the issues related to **Topic and skills dashboard**	- #18089 - #18086 - #18218 - #10666 - #18076 - #16476	21 August	26 August
10	**Topic and skills dashboard** - Change the minimum Lighthouse score threshold to 100, make the page fully accessible, fully achieve AA standard on axe, and achieve AAA standard on axe except for colour changes which need design help (which should be added to a document to be shared with designers)	-	24 August	29 August
11	**Signup page** & **Contact page** - Change the minimum Lighthouse score threshold to 100, make the page fully accessible, fully achieve AA standard on axe, and achieve AAA standard on axe except for colour changes which need design help (which should be added to a document to be shared with designers)	-	26 August	1 September
-	**Product manager demo – 5 September**	-	-	-
12	Fix the issues related to **Exploration editor**	- #17939 - #17833 - #17835 - #17994 - #17944 - #17925 - #878 - #16021 - #17924 - #17921 - #17941	2 September	7 September

		- #18034 - #18032 - #18033 - #17830 - #17837 - #17828 - #16895 - #18199 - #13461 - #17863 - #17961 - #17943 - #17805		
13	Fix a11y issue with volunteer page	- #13668	4 September	9 September
14	**Exploration editor** - Change the minimum Lighthouse score threshold to 100, make the page fully accessible, fully achieve AA standard on axe, and achieve AAA standard on axe except for colour changes which need design help (which should be added to a document to be shared with designers)	-	6 September	11 September
15	Fix the issue:	#18296	8 September	13 September
16	Fix this issue:	#3082	10 September	14 September
17	**Story editor** - Change the minimum Lighthouse score threshold to 100, make the page fully accessible, fully achieve AA standard on axe, and achieve AAA standard on axe except for colour changes which need design help (which should be added to a document to be shared with designers)	-	11 September	15 September

Future Work

I plan to continue my work towards increasing accessibility on Oppia by extending my efforts to all remaining pages that have not yet been addressed, like the blog page, donate page, volunteers page, partnerships page, about page, foundations page, teach page, review tests

page, collections page, collections editor page, email dashboard page, blog dashboard, blog admin page, facilitator dashboard, moderator page, and the admin page. This will involve running Lighthouse tests on each page, identifying accessibility issues, and implementing fixes to improve their scores to 1.0.