Documentation for JavaScript Code

1 Introduction

This document provides a detailed explanation and list of functions for the JavaScript code that implements a dynamic, interactive system for handling text panels and question panels. The code allows functionalities such as highlighting text, adding and editing notes, controlling a timer, loading content dynamically, managing question navigation, and saving/loading answers in local storage.

2 Main Functions Overview

The primary functionalities are divided into the following sections:

2.1 Timer Management

- **startTimer()**: Starts a timer that increments every second and updates a visible timer display.

- **resetTimer()**: Resets the timer to zero and restarts it.

- **formatTime()**: Converts the elapsed time in seconds into a "MM:SS" format.

2.2 Text and Note Highlighting

- **highlightText()**: Highlights selected text with a yellow background and hides the context menu.

- **addNote()**: Adds a note to selected text and opens a note box for user input.

- **createHighlightSpan()**: Creates a span element that wraps the highlighted text.

- **applyHighlightOrNote()**: Handles the logic for applying a highlight or note to a text selection, including single and multi-node selections.

2.3 Dynamic Content Loading

- **loadPanel()**: Loads content dynamically into a specified panel, fetching HTML from a given URL.

- **showPageContent()**: Displays a specific page within the loaded content (text or questions).

2.4 Navigation and Panel Management

- **showQuestion()**: Toggles the visibility of options for a specific question.

- **navigatePage()**: Handles page navigation (next/previous) across different panels.

- **initializeDynamicEventListeners()**: Sets up dynamic event listeners for interactions within the question panel.

2.5 Answer Management

- **submit-button**: Saves user answers locally to the browser's localStorage.

- **load-answers-button**: Allows users to download their saved answers as a '.json' file.

3 Function Table

The following table lists all the functions in the code along with their roles. The column widths are set to prevent text overflow and ensure that the table fits within the page margins.

Function	Role
startTimer()	Starts the timer and updates the time display every second.
formatTime(seconds)	Converts the elapsed time in seconds to "MM:SS" format.
resetTimer()	Resets the timer and restarts it.
highlightText()	Highlights selected text and hides the context menu after high-lighting.
addNote()	Opens a note box for the user to add a note to the selected text.
createHighlightSpan(text, className, backgroundColor)	Creates a span element to wrap highlighted text with a specified class and background color.
applyHighlightOrNote(className, backgroundColor)	Applies a highlight or note to the selected text, handling single-node and multi-node selections.
loadPanel(panelId, url, callback)	Loads dynamic content into a specified panel.
showPageContent(panelType, pageNumber)	Displays the specific page in either the text or question panel.
showQuestion(number)	Toggles visibility for options related to a specific question.
navigatePage(direction)	Navigates between pages in the text and question panels.
initializeDynamicEventListeners()	Adds event listeners to dynamically loaded panels, such as the question panel.
submit-button	Saves the answers to localStorage when the submit button is clicked.
load-answers-button	Downloads saved answers as a JSON file when the load-answers button is clicked.
openNoteBoxForNewHighlight()	Opens a note box to allow the user to add a new note to a high-lighted text.
openNoteBoxForExistingHighlight(span)	Opens a note box for editing the note attached to an existing highlight.
saveNote()	Saves the note content for a highlighted text.
editNote()	Edits the note for the highlighted text.
closeNoteBox()	Closes the note box without saving any changes.
wrapElementContent(elementNode, className, backgroundColor)	Wraps the content of an element in spans with a specified class and background color.
toggleOptions(questionNumber)	Toggles the visibility of options for a specific question.
scrollToQuestion(questionNumber)	Scrolls the page to a specific question.
observer.observe()	Observes changes in the DOM for loading panels and dynamic content.