Advanced JS Breakdown: To-Do App

Global Variables and DOM Selection

These lines grab references to important elements on the page like buttons and the list container. They're stored in constants so we can interact with them easily in our JS.

window.addEventListener('DOMContentLoaded', loadCardsFromStorage);

When the page loads, this line ensures that any cards saved in localStorage get reloaded and displayed automatically.

addCard.addEventListener("click", () => { ... });

When the "Add Card" button is clicked:

- We create a new card object with a unique `id` using `Date.now()`.

- A DOM element is created for the card using `createCardElement(cardData)`.

- Its added to the page.

- Then we save the cards data into localStorage using `savedCard()`.

deleteCard.addEventListener("click", () => { ... });

This event listener goes through all the delete checkboxes. If one is checked:

- It removes the associated `<li>` element from the DOM.

- It filters the stored cards to exclude the one matching the `id`.

- Then updates localStorage.

function createCardElement(cardData) { ... }

- Creates a `<li>` element representing a card.

- Adds the structure for a card: title input, checkbox, textarea.

- Sets the values using `cardData.title` and `cardData.text`.

- Attaches listeners to the title and textarea to update localStorage when the user types.

function updateCardData(li) { ... }

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- Gets the card's id and current input values.

- Finds the card in the stored array and updates the corresponding data.

- Saves the updated array back to localStorage.

function savedCard(cardData) { ... }

- Retrieves the current array of cards from localStorage.

- Pushes the new card into the array.

- Saves the updated array back.

function getSavedCards() { ... }

- Returns the stored card array from localStorage. If nothings saved, it returns an empty array.

function loadCardsFromStorage() { ... }

- On page load, this reads stored cards and adds them to the DOM using `createCardElement()`.

Advanced JS Concepts Used:

- `Date.now()` returns a timestamp in milliseconds. Great for generating unique IDs.

- `localStorage.setItem(key, value)` stores data permanently (until manually cleared).

- `JSON.stringify()` and `JSON.parse()` convert objects to strings and vice versa, since localStorage only stores strings.

- `.addEventListener('input', ...)` tracks live typing changes so storage updates in real-time.

- `.closest('li')` helps find the parent list item for easy removal or data access.