

# TodoMVC improvement

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## Part 1. Fix a bug

**Problem:** svg does not show

**Reason:** due to using # in color code. # in URLs starts a fragment identifier.

**Solution:**

- solution 1: replace # by %23. **Pros:** quick fix. **Cons:** difficulty in maintenance. This solution is suitable for short-term project.
- solution 2: separate svg as an external source. **Pros:** easy to manage for long-term maintenance. **Cons:** take time to format code. This solution is suitable for long-term project.

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## Part 2. Implement todo count feature

**Solution:**

- connect `Footer` to Redux store to get current state of `todos`
- filter `todos` to get number of undone items

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## Part 3. Implement URL detection feature

**Solution:**

- using regular expression to filter input string
- using `dangerouslySetInnerHTML` to transform string to html
- using `sanitizeHtml` to specify the permitted tags and those tags' attributes in order to prevent app from cross-site script attack

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## Part 4. Review

### Coding improvement

- Hard coded values should be extracted to `const` . (e.g: action type)
- Separate components into different files

## UX improvement

Method: Heuristic Evaluations

Objectives: Produce solutions for current problems in short time

Criteria	Comment	Improvement
<b>Visual Hierarchy</b>	The size and position of elements well reflect their importance.	
<b>Contrast</b>	Low contrast between color and background.	Text font-weight should be larger Text color should be more contrast
<b>Use of color</b>	3 filters “All”, “Active” and “Complete” are treated as the same color.	Should use different color for active filter or use different color for each filter to specify
<b>Labels</b>	Language used in the app is descriptive.	
<b>Feedback</b>	State of objects change visually to provide promptly informative feedback after user make an action.	When click done a todo, there should be a fancy animation to encourage user
<b>Forms</b>	Form input is described using placeholder text. The only way to add a new todo is hitting ‘enter’.	There should be also a “Add” button to add a new todo
<b>Information Scalability</b>	When many items (such as 30 todos) are added, it is difficult to see filter section cause the list is extend over the fold.	Solution1 : when hitting arrow, the list should be collapsed. Move filter section to the top. Solution 2: Fix visible todo list height and add scroller
<b>Physical Constraint</b>	Input field and filter section is not larger enough on small devices so it’s difficult for large fingers to navigate	Make input field and filter larger for small devices
<b>First-time User</b>	The app is easily usable for first-time visitor because it uses common sense.	
<b>Screen size</b>	The app is not responsive. It’s hard to use app on small screen like tablet and mobile.	Make it responsive

Considerable features for future development:

- delete done todo from the list

- drag and drop todos to order their priorities
- add deadline for each todo and get notification when deadline approaches
- organise todo based on categories