

# SPFx - Parent Panel with Radio Button for Creating List/Library(Using Webpart)

## 1. Introduction

This paper encompasses the scope of work defining in detail the technical elements of implementing a SharePoint framework webpart where users can create a SharePoint list/library in a step-wise panel based approach. The approach comprises of a main panel with a radio button that one selects to show a sub panel with more input boxes and a few buttons to conclude the making of the list/library.

## 2. Technologies Used

SharePoint Framework (SPFx): SPFx is utilized to create the WebPart that communicates with SharePoint.

React: For building the UI in a component-based manner.

Fluent UI (Office UI Fabric): In order to create the look-and-feel for the panel and the buttons.

PnPjs: In relation to SharePoint's lists and libraries management.

TypeScript: To help with type checking during development.

SPFx Extensions: Helping the UI to communicate with the SharePoint backend system.

## 3. Solution Overview

The SPFx WebPart consists of a parent panel with a radio button that activates the creation of a new list or a library. The child panel appears when the radio button is selected and consists of four buttons:

Enter list/library name: This allows the user to enter a name for the list/library.

Enter column name: This allows the user to enter names of columns.

**Create:** This creates the list/library with the given columns.

**Back:** This closes the child panel and returns to the parent panel.

### **3.1. Parent Panel**

The parent panel features a radio button for activating and deactivating the creation process. When the radio button is selected, the child panel appears.

### **3.2. Child Panel**

The child panel provides a space for users to fill in particular information, such as the name of the list/library and the columns, as well as buttons for advancing and returning to the parent panel.

## **4. Key Features and Components**

### **4.1. Parent Panel**

parent-panel Features a Radio button that allows the user to switch between the creating a list and a library. It employs the Radio component of Fluent UI which is connected to the state. It also presents the user with the option of a “Next” button which leads to a child panel whenever one of the binary choices is engaged.

### **4.2. Child Panel**

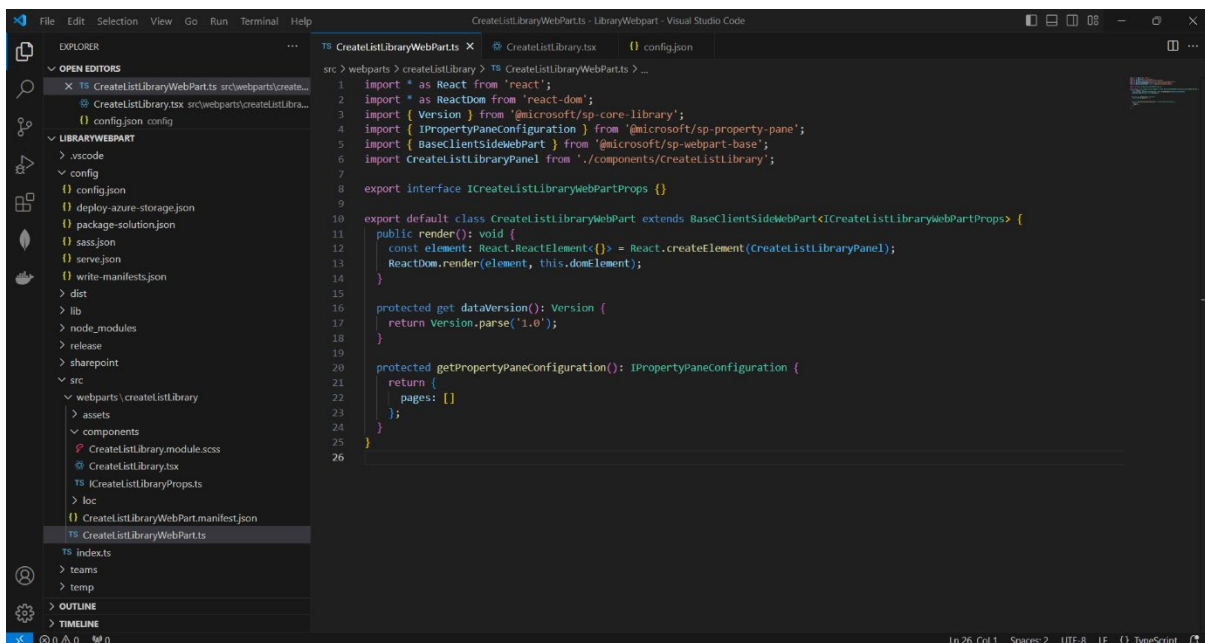
The child panel has fields to fill in a name for the list/library as well as the name of the columns and contains commands to create the given list/library or go back to the parent panel. Create button tasks create List Or Library whereby the back end calls the function to the SharePoint through PnPjs.

### 4.3. List Creation Using PnPjs

PnPjs is also applied in growing the columns of the list or library within the pages dynamically. It makes the creation of the lists in the SharePoint a much better experience by providing a simple to use much more sensible API.

#### Code Structure:

#### CreateListLibraryWebpart.ts:



```
src > webparts > createListLibrary > TS CreateListLibraryWebPart.ts > ...
1 import * as React from 'react';
2 import * as ReactDOM from 'react-dom';
3 import { Version } from '@microsoft/sp-core-library';
4 import { IPropertyPaneConfiguration } from '@microsoft/sp-property-pane';
5 import { BaseClientSideWebPart } from '@microsoft/sp-webpart-base';
6 import CreateListLibraryPanel from './components/CreateListLibrary';
7
8 export interface ICreateListLibraryWebPartProps {}
9
10 export default class CreateListLibraryWebPart extends BaseClientSideWebPart<ICreateListLibraryWebPartProps> {
11   public render(): void {
12     const element: React.ReactElement<{}> = React.createElement(CreateListLibraryPanel);
13     ReactDOM.render(element, this.domElement);
14   }
15
16   protected get dataVersion(): Version {
17     return Version.parse('1.0');
18   }
19
20   protected getPropertyPaneConfiguration(): IPropertyPaneConfiguration {
21     return {
22       pages: []
23     };
24   }
25 }
26
```

#### CreateListLibrary.tsx:

```
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CreateListLibraryWebPart - Visual Studio Code

src > webparts > createListLibrary > components > CreateListLibraryWebPart > ...
1 import * as React from 'react';
2 import { Panel, DefaultButton, PrimaryButton, TextField, ChoiceGroup, IChoiceGroupOption } from '@fluentui/react';
3 import pnp from 'sp-pnp-js';
4
5 const CreateListLibraryPanel: React.FC = () => {
6   const [isPanelOpen, setIsPanelOpen] = React.useState(false);
7   const [selectedOption, setSelectedOption] = React.useState<string>("");
8   const [listName, setListName] = React.useState<string>("");
9   const [columnName, setColumnName] = React.useState<string>("");
10
11   const options: IChoiceGroupOption[] = [
12     { key: 'createList', text: 'Create List/Library' }
13   ];
14
15   const handleOptionChange = (event: React.FormEvent<HTMLInputElement>, option: IChoiceGroupOption): void => {
16     setSelectedOption(option.key);
17     setIsPanelOpen(true); // Open the next panel when radio button is selected
18   };
19
20   const handleCreateList = async () => {
21     try {
22       await pnp.sp.web.lists.add(listName);
23       alert(`List '${listName}' created successfully!`);
24     } catch (error) {
25       alert(`Error creating list: ${error.message}`);
26     }
27   };
28
29   const handleAddColumn = async () => {
30     try {
31       const list = pnp.sp.web.lists.getByTitle(listName);
32       await list.fields.addText(columnName);
33       alert(`Column '${columnName}' added to list '${listName}' successfully!`);
34     } catch (error) {
35       alert(`Error adding column: ${error.message}`);
36     }
37   };
38
39   return (
40     <div>
41       <ChoiceGroup
42         label="Choose an option"
43         selectedKey={selectedOption}
44         options={options}
45         onChange={handleOptionChange}
46       />
47
48       <Panel
49         isOpen={isPanelOpen}
50         onDismiss={() => setIsPanelOpen(false)}
51         headerText="Create List or Library"
52       >
53         <TextField
54           label="Enter List/Library Name"
55           value={listName}
56           onChange={(e, newValue) => setListName(newValue || "")}
57         />
58         <TextField
59           label="Enter Column Name"
60           value={columnName}
61           onChange={(e, newValue) => setColumnName(newValue || "")}
62         />
63         <PrimaryButton text="Create" onClick={handleCreateList} />
64         <PrimaryButton text="Add Column" onClick={handleAddColumn} />
65         <DefaultButton text="Back" onClick={() => setIsPanelOpen(false)} />
66       </Panel>
67     </div>
68   );
69 }
70
71 export default CreateListLibraryPanel;
```

```
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CreateListLibraryWebPart - Visual Studio Code

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```
src > webparts > createListLibrary > components > CreateListLibrary.tsx > ...
5  const CreateListLibraryPanel: React.FC = () => {
63     value={columnName}
64     onChange={(e, newValue) => setColumnName(newValue || "")}
65     />
66     <PrimaryButton text="Create" onClick={handleCreateList} />
67     <PrimaryButton text="Add column" onClick={handleAddColumn} />
68     <DefaultButton text="Back" onClick={() => setIsPanelOpen(false)} />
69   </Panel>
70 )};
71 </div>
72 );
73 };
74 };
75 export default CreateListLibraryPanel;
76
```

## CreateListLibrary.module.scss File

```
src > webparts > createListLibrary > components > CreateListLibrary.module.scss > ...
1  @import '~@fluentui/react/dist/sass/References.scss';
2
3  .createListLibrary {
4    overflow: hidden;
5    padding: 1em;
6    color: "[theme:bodyText, default: #323130]";
7    color: var(--bodyText);
8    &.teams {
9      font-family: $ms-font-family-fallbacks;
10   }
11 }
12
13 .welcome {
14   text-align: center;
15 }
16
17 .welcomeImage {
18   width: 100%;
19   max-width: 420px;
20 }
21
22 .links {
23   a {
24     text-decoration: none;
25     color: "[theme:link, default:#03787c]";
26     color: var(--link); // note: CSS Custom Properties support is limited to modern browsers only
27
28     &:hover {
29       text-decoration: underline;
30       color: "[theme:linkHovered, default: #014446]";
31       color: var(--linkHovered); // note: CSS Custom Properties support is limited to modern browsers only
32     }
33   }
34 }
```

## Output:

