

Implementing a Global Notification Banner with SPFx Application Customizer

1. Introduction

A Global Notification Banner provides the functionality to the webmasters and the content managers to add pertinent notifications and alerts on all the pages of a SharePoint site. Using the SPFx application customizer, it is possible to embed a banner into the page layout of the SharePoint environment.

2. Technologies Used

SharePoint Framework (SPFx) - A framework for creating customizations on SharePoint Online: with the help of modern web technologies.

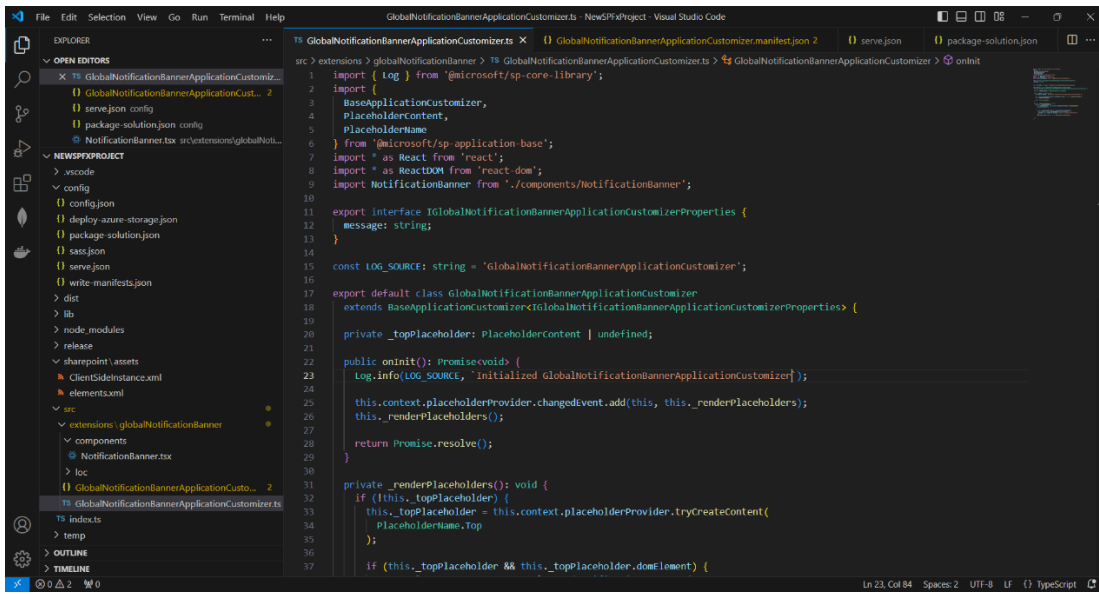
React - For creating the interface of the banner.

TypeScript - To provide strong type checking when developing and writing code.

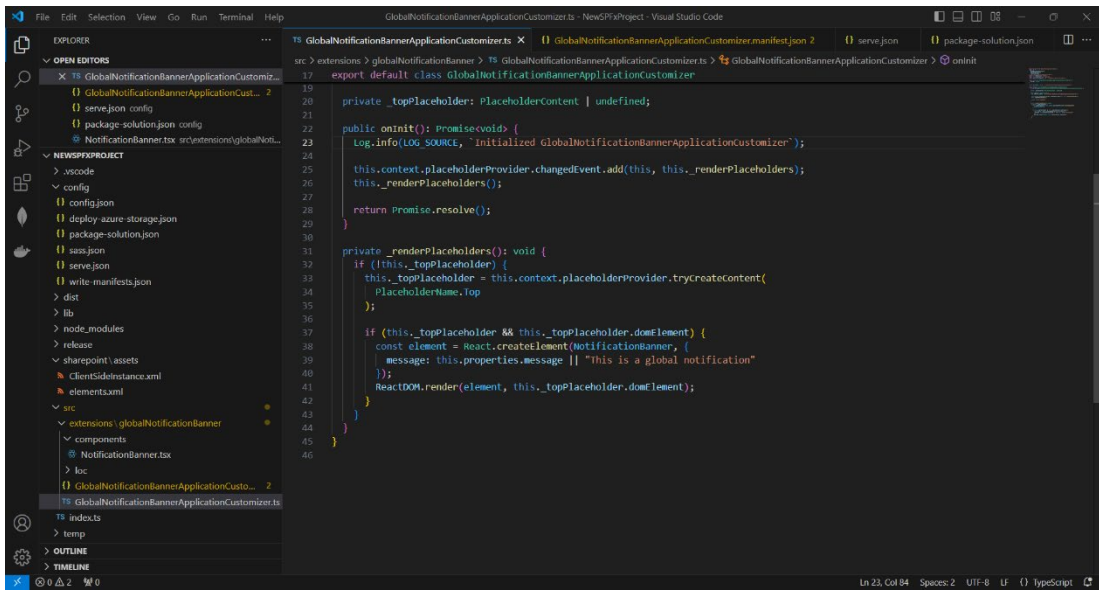
SharePoint REST API with which dynamic data can be retrieved (optional).

Office UI Fabric/Fluent UI - To style the components in a way that corresponds with Microsoft's design.

3. Application Customizer(.ts) file

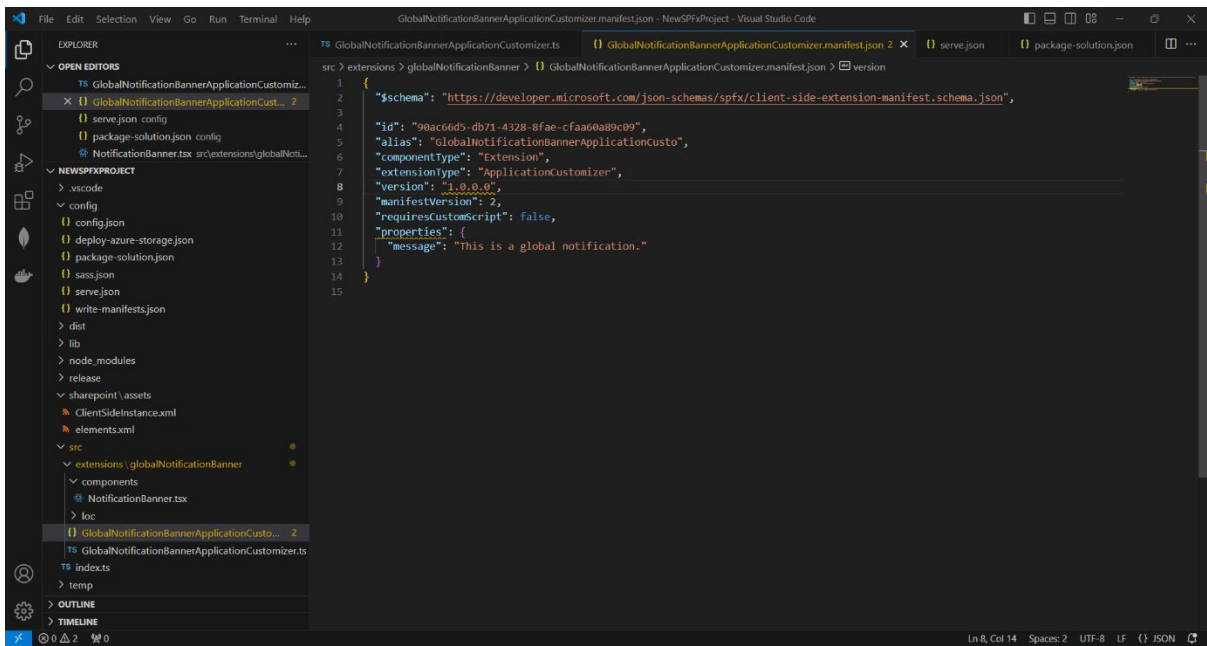


```
1 import { Log } from '@microsoft/sp-core-library';
2 import {
3   BaseApplicationCustomizer,
4   PlaceholderContent,
5   PlaceholderName
6 } from '@microsoft/sp-application-base';
7 import * as React from 'react';
8 import * as ReactDOM from 'react-dom';
9 import NotificationBanner from './components/NotificationBanner';
10
11 export interface IGlobalNotificationBannerApplicationCustomizerProperties {
12   message: string;
13 }
14
15 const LOG_SOURCE: string = 'GlobalNotificationBannerApplicationCustomizer';
16
17 export default class GlobalNotificationBannerApplicationCustomizer
18   extends BaseApplicationCustomizer<IGlobalNotificationBannerApplicationCustomizerProperties> {
19
20   private _topPlaceholder: PlaceholderContent | undefined;
21
22   public onInit(): Promise<void> {
23     Log.info(LOG_SOURCE, 'initialized GlobalNotificationBannerApplicationCustomizer');
24     this.context.placeholderProvider.changedEvent.add(this, this._renderPlaceholders);
25     this._renderPlaceholders();
26     return Promise.resolve();
27   }
28
29   private _renderPlaceholders(): void {
30     if (!this._topPlaceholder) {
31       this._topPlaceholder = this.context.placeholderProvider.tryCreateContent(
32         PlaceholderName.Top
33       );
34     }
35     if (this._topPlaceholder && this._topPlaceholder.domElement) {
```



```
36     }
37   }
38
39   private _renderPlaceholders(): void {
40     if (!this._topPlaceholder) {
41       this._topPlaceholder = this.context.placeholderProvider.tryCreateContent(
42         PlaceholderName.Top
43       );
44     }
45     if (this._topPlaceholder && this._topPlaceholder.domElement) {
46       const element = React.createElement(NotificationBanner, {
47         message: this.properties.message || "This is a global notification"
48       });
49       ReactDOM.render(element, this._topPlaceholder.domElement);
50     }
51   }
52 }
```

4. .manifest.json File



5. Components(.tsx) file

```
src > extensions > globalNotificationBanner > components > NotificationBanner.tsx > default
1 import * as React from 'react';
2 import { MessageBar, MessageBarType } from '@fluentui/react/lib/MessageBar';
3
4 export interface INotificationBannerProps {
5   message: string;
6 }
7
8 const NotificationBanner: React.FC<INotificationBannerProps> = (props) => {
9   return (
10     <div style={{ position: 'fixed', top: 0, width: '100%', zIndex: 1000 }}>
11       <MessageBar messageBarType={MessageBarType.warning} isMultiline={false}>
12         {props.message}
13       </MessageBar>
14     </div>
15   );
16 };
17
18 export default NotificationBanner;
19
```

6. serve.json File

```
config > () serve.json > () serveConfigurations > () default > () customActions > () 90ac66d5-db71-4328-8fae-cfaa60a89c09 > () properties > testMessage
1 {
2   "$schema": "https://developer.microsoft.com/json-schemas/spfx-build/spfx-serve.schema.json",
3   "port": 4321,
4   "https": true,
5   "serveConfigurations": {
6     "default": {
7       "pageUrl": "https://3gv3y3.sharepoint.com/sites/MyTest?debug=true&noDir=true&debugManifestsFile=https://localhost:4321",
8       "customActions": {
9         "90ac66d5-db71-4328-8fae-cfaa60a89c09": {
10           "location": "ClientSideExtension.ApplicationCustomizer",
11           "properties": {
12             "testMessage": "Test message"
13           }
14         }
15       }
16     },
17     "globalNotificationBanner": {
18       "pageUrl": "https://3gv3y3.sharepoint.com/sites/MyTest?debug=true&noDir=true&debugManifestsFile=https://localhost:4321",
19       "customActions": {
20         "90ac66d5-db71-4328-8fae-cfaa60a89c09": {
21           "location": "ClientSideExtension.ApplicationCustomizer",
22           "properties": {
23             "testMessage": "Test message"
24           }
25         }
26       }
27     }
28   }
29 }
30
```

Output Screenshot

This is a global notification

MT

My Test

Home

Documents

Pages

Task List

Site contents

Edit

★ Following

🔗 Site access

+ New

🔗 Page details

📊 Analytics

Draft saved 9/12/2024

🔗 Share

✎ Edit

🔄 Republish

↗

