**Steps to create custom web part property – Add multiple type of properties**

In this exercise we will multiple type of properties in property pane and get its value in web part.

**Step 1:**Edit **WebPartPropertiesWebPart.ts** webpart file and do following changes.

**1.** Import property pane helper methods (PropertyPaneDropdown, PropertyPaneCheckbox, PropertyPaneToggle) to create controls on the property pane.

import {

  IPropertyPaneConfiguration,

  PropertyPaneTextField,

  PropertyPaneDropdown,

PropertyPaneCheckbox,

  PropertyPaneToggle,

PropertyPaneSlider,

PropertyPaneChoiceGroup, // this is used for radio button with and without image

PropertyPaneLink,// used to create hyperlink in property pane

} from '@microsoft/sp-property-pane';

**2.** Define properties with type in interface **IWebPartPropertiesWebPartProps**

export interface IWebPartPropertiesWebPartProps {

  description: string;

  myDropdown: string;

myMultiline: string;

myCheckbox: boolean;

myToggle: boolean;

mySliderValue: number;

myChoiceGroup:string;

myChoiceGroupImage:string;

}

**3.** Update **render()** method add properties in **createElement()** function to create web part properties. You may get error as properties are not yet defined in React component interface **IWebPartPropertiesProps** in file **IWebPartPropertiesProps.ts.** See step 2 for details.

WebPartProperties,

      {

        description: this.properties.description,

        myDropdown: this.properties.myDropdown,

myMultiline: this.properties.myMultiline,

myCheckbox: this.properties.myCheckbox,

myToggle: this.properties.myToggle,

mySliderValue: this.properties.mySliderValue,

myChoiceGroup:this.properties.myChoiceGroup,

myChoiceGroupImage:this.properties. myChoiceGroupImage

      }

**4.** Update **getPropertyPaneConfiguration()** and add all the controls in property pane with names specified in interface.

 groups: [

            {

              groupName: strings.BasicGroupName,

              groupFields: [

                PropertyPaneTextField('description', {

                  label: strings.DescriptionFieldLabel

                }),

                PropertyPaneTextField('myMultiline', {

                  label: "Multi line text field",

                  multiline:true

                }),

                PropertyPaneDropdown('myDropdown',{

                  label: 'My Dropdown control',

                  options:[

                    {key:'Red',text:'Red'},

                    {key:'Blue',text:'Blue'},

                    {key:'Green',text:'Green'}

                  ]

                }),

                PropertyPaneCheckbox('myCheckbox',{

                  text:'My Checkbox'}),

                PropertyPaneToggle('myToggle',{

                  label:'My Toggle',

                  onText:'Yes',

                  offText:'No'

                })

 PropertyPaneSlider('mySlider',{

                  label:'My Slider',

                  min:1,

                  max:10,

                  step:1,

                  showValue:true,

                  value:1

                }),

PropertyPaneChoiceGroup(myChoiceGroup,{

                  label:'My Radio button choices',

                  options:[

                    {key:'Red',text:'Red'},

                    {key:'Blue',text:'Blue', checked:true},

                    {key:'Green',text:'Green'}

                  ]

                })

PropertyPaneChoiceGroup('myChoiceGroupImage', {

                  label: 'Select Invoice File type:',

                  options: [

                   { key: 'MSWord', text: 'MSWord',

                     imageSrc: 'https://static2.sharepointonline.com/files/fabric/assets/brand-icons/document/png/docx\_32x1.png',

                     imageSize: { width: 32, height: 32 },

                     selectedImageSrc: 'https://static2.sharepointonline.com/files/fabric/assets/brand-icons/document/png/docx\_32x1.png'

                   },

                   { key: 'MSExcel', text: 'MSExcel',

                     imageSrc: 'https://static2.sharepointonline.com/files/fabric/assets/brand-icons/document/png/xlsx\_32x1.png',

                     imageSize: { width: 32, height: 32 },

                     selectedImageSrc: 'https://static2.sharepointonline.com/files/fabric/assets/brand-icons/document/png/xlsx\_32x1.png'

                   },

                   { key: 'MSPowerPoint', text: 'MSPowerPoint',

                     imageSrc: 'https://static2.sharepointonline.com/files/fabric/assets/brand-icons/document/png/pptx\_32x1.png',

                     imageSize: { width: 32, height: 32 },

                     selectedImageSrc: 'https://static2.sharepointonline.com/files/fabric/assets/brand-icons/document/png/pptx\_32x1.png'

                   },

                   { key: 'OneNote', text: 'OneNote',

                     imageSrc: 'https://static2.sharepointonline.com/files/fabric/assets/brand-icons/document/png/one\_32x1.png',

                     imageSize: { width: 32, height: 32 },

                     selectedImageSrc: 'https://static2.sharepointonline.com/files/fabric/assets/brand-icons/document/png/one\_32x1.png'

                   }

                 ]

               }),

//this is for hyperlink in property pane. We are not binding this control to any property of web part

PropertyPaneLink('', {

                href: 'https://www.amazon.in',

                text: 'Buy Intel Processor from the best Seller',

                target: '\_blank',

                popupWindowProps: {

                  height: 500,

                  width: 500,

                  positionWindowPosition: 2,

                  title: 'Amazon'

                }

              }),

              ]

**Step 2:** Update React component.Edit file **IWebPartPropertiesProps.ts** inside **components** folder and update interface **IWebPartPropertiesProps.** Add all the properties with type.

export interface IWebPartPropertiesProps {

  description: string;

  myDropdown: string;

myMultiline: string;

myCheckbox: boolean;

myToggle: boolean;

mySlider:number;

myChoiceGroup:string;

myChoiceGroupImage:string;

}

**Step 3:** Update **React component** for webpart. Edit file **WebPartProperties.tsx**. Inside **render()** method update 2 things. Add constant for all properties defined in interface. These constants are part of to **this.props**. (Properties of web part) These const are used in code to render the value inside div.

 const {

      description,

      myDropdown,

      myMultiline,

      myCheckbox,

      myToggle,

  mySlider,

myChoiceGroup,

myChoiceGroupImage,

      isDarkTheme,

      environmentMessage,

      hasTeamsContext,

      userDisplayName

    } = this.props;

Inside **render()** method of react component add html to display values from property pane controls.

let toggle = 'No';

let myCheckboxValue = 'Not checked';

if(myToggle)

    {toggle = 'Yes'}

if(myCheckbox)

    {myCheckboxValue ='Checked'}

  <div>myMultiline value: <strong>{escape(myMultiline)}</strong></div>

  <div>Selected myDropdown value: <strong>{escape(myDropdown)}</strong></div>

 <div>Selected myDropdown value: <strong> {escape(myDropdown)} </strong> </div>

<div>Toggle value selected is: <strong>{toggle}</strong></div>

<div>Check box value selected is:<strong>{myCheckboxValue}</strong> </div>

<div>Slider value selected is: <strong>{mySlider}</strong></div>

<div>Radio button/ choice group value selected is: <strong>{myChoiceGroup}</strong></div>

<div>Image Radio button/ choice group value selected is: <strong>{myChoiceGroupImage}</strong></div>

**Step 4:** Add a default value for color in **WebPartPropertiesWebPart.manifest.json** file.

  "properties": {

      "description": "WebPartProperties",

      "myDropdown": "Red",

      "myMultiline":"My sample text",

      "myCheckbox": true,

      "myToggle":true,

"mySlider":5,

      "myChoiceGroup":"Blue",

"myChoiceGroupImage":"MSExcel"

    }

