

Project 52

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Coding School



Project 52

Let's create a Currency Converter App. there,

The currency unit to be converted should be selected from the drop down.

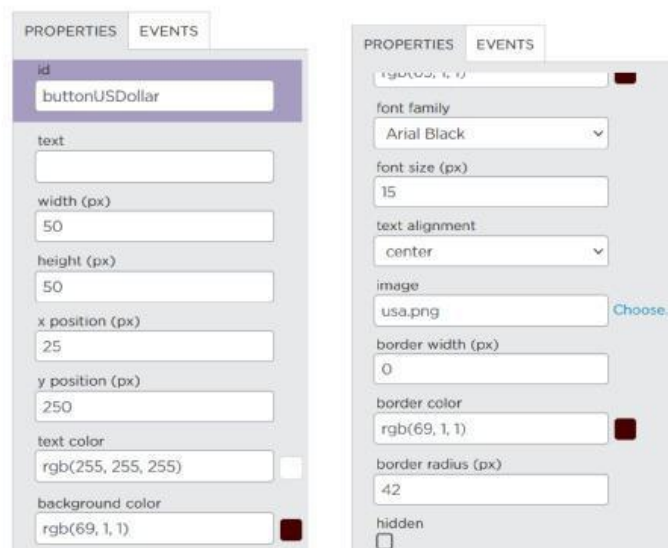
When Sri Lanka Rupee (SLRs) is selected, the US Dollar button should be shown and the SLR button should be displayed. When US dollar is selected, the button for SLRs should show us and it should be the button for US dollars.

When the amount of money to be converted is entered and a button is clicked, the amount entered should be converted to one currency according to that button.



The background and basics you need are provided.

❖ Let's create the button for US dollar. Let's set the properties as follows.



- ❖ Since there are 5 currency units, 5 buttons should be created for that. Set the button's properties as above and give the ID, background-images, x and y position as below.

ID	buttonSLRs	buttonPound	buttonYen	buttonEuro
background-images	sl.png	uk.png	japan.png	euro.png
x – position (px)	25	100	175	240
y – position (px)	250	250	250	250

- ❖ After running, as default in the drop down, there is Sri Lanka Rupee, so at that time the "buttonSLRs" button should be hidden, so hide the "buttonSLRs" button.
- ❖ Create a label as "labelResult" to display the result after clicking a button.
- ❖ Here you are given the value of one Sri Lankan rupee in US dollars, pounds, yen and euros. They are assigned to variables as follows.

```
var oneRupeeToUSDollar = 0.0031;
var oneRupeeToPound = 0.0025;
var oneRupeeToYen = 0.42;
var oneRupeeToEuro = 0.0028;
```

- ❖ And you are given the value of a US dollar in Sri Lanka rupees, pounds, yen and euros. They are also assigned to variables as follows.

```
var oneDollarToRupee = 322.17;
var oneDollarToPound = 0.80;
var oneDollarToYen = 134.27;
var oneDollarToEuro = 0.91;
```

- ❖ Create 2 variables as "value" and "result" and give the value as zero.
- ❖ When "Sri Lanka Rupee" is selected from the drop down, the "\$" symbol and "buttonSLRs" button will be hidden, and the "Rs" symbol and "buttonUSDollar" button will be shown, and when "United States Dollar" is selected from the drop down, " Use the following code block to hide the Rs" symbol and the "buttonUSDollar" button and show the "\$" symbol and the "buttonSLRs" button..

```

onEvent(▼"dropdownCurrency", ▼"change", function( ) {
  if( getText(▼"dropdownCurrency") == 'Sri Lankan Rupee' ){
    hideElement(▼"buttonSLRs");
    showElement(▼"buttonUSDollar");
    setText(▼"labelSymbol", "Rs.");
  }
  else{
    hideElement(▼"buttonUSDollar");
    showElement(▼"buttonSLRs");
    setText(▼"labelSymbol", "$");
  }
});

```

- ❖ When "Sri Lanka Rupee" is selected from the drop down, click a button and to convert the value in rupees to another currency unit, the value in rupees should be increased by the value of one rupee in that currency unit.
- ❖ When "Sri Lanka Rupee" is selected from the drop down, the code block for clicking the "buttonUSDollar" button is as follows.

```

onEvent(▼"buttonUSDollar", ▼"click", function( ) {
  value = getNumber(▼"inputValue");
  result = value * oneRupeeToUSDollar;
  setProperty(▼"buttonUSDollar", ▼"border-width", ▼"0");
  setProperty(▼"buttonPound", ▼"border-width", ▼"0");
  setProperty(▼"buttonYen", ▼"border-width", ▼"0");
  setProperty(▼"buttonEuro", ▼"border-width", ▼"0");
  setProperty(▼"buttonSLRs", ▼"border-width", ▼"0");
  setProperty(▼"buttonUSDollar", ▼"border-width", ▼"3");
  setProperty(▼"buttonUSDollar", ▼"border-color", ▼"#4466ED");
  setText(▼"labelResult", "$ " + result.toFixed(2));
});

```

Set the border-width of all 5 buttons to zero.

Change the border-width and border-colour only on the clicked button.

- ❖ The code block for clicking the "buttonPound" button is as follows.

```

onEvent(▼ "buttonPound", ▼ "click", function() {
  value = getNumber(▼ "inputValue");
  if( getText(▼ "dropdownCurrency") == 'Sri Lankan Rupee' ) {
    result = value * oneRupeeToPound;
  }
  else{
    result = value * oneDollarToPound;
  }
  setProperty(▼ "buttonUSDollar", ▼ "border-width", ▼ "0");
  setProperty(▼ "buttonPound", ▼ "border-width", ▼ "0");
  setProperty(▼ "buttonYen", ▼ "border-width", ▼ "0");
  setProperty(▼ "buttonEuro", ▼ "border-width", ▼ "0");
  setProperty(▼ "buttonSLRs", ▼ "border-width", ▼ "0");
  setProperty(▼ "buttonPound", ▼ "border-width", ▼ "3");
  setProperty(▼ "buttonPound", ▼ "border-color", ▼ "#4466ED");
  setText(▼ "labelResult", "£ " + result.toFixed(2));
});

```

If "Sri Lanka Rupee" is selected from drop down

If "US dollar" is selected from the drop down

- ❖ Study the above code block and code the buttons "buttonYen", "buttonEuro" and "buttonSLRs".

Choose the correct answer.

```
onEvent(▼"dropdownCurrency", ▼"change", function() {  
  if (getText(▼"dropdownCurrency") == 'Sri Lanka Rupee') {  
    hideElement(▼"buttonSLRs");  
    showElement(▼"buttonUSDollar");  
    setText(▼"labelSymbol", "Rs.");  
  }  
})
```

1. What does mean this block?

If "dropdownCurrency" is changed and it appears as Sri Lanka Rupee in "dropdownCurrency", the button named "buttonSLRs" should be displayed and the button named "buttonUSDollar" should be hidden.

If "dropdownCurrency" is changed and it appears as Sri Lanka Rupee in "dropdownCurrency", the button "buttonSLRs" should be hidden and the button "buttonUSDollar" should be displayed.

If "dropdownCurrency" is changed and it appears as Sri Lanka Rupee in "dropdownCurrency", "buttonSLRs" button should be hidden and "buttonUSDollar" button should be displayed and in "labelSymbol" label Rs. should be recorded.

2. In this project, what variable did you use to give one Sri Lankan rupee as 0.0031 dollars?

```
var oneDollarToRupee = 0.0031;  
var oneRupeeToUSDollar = 0.0031;  
var oneDollarToRupee = 322.17;
```

3. Which design tool has been used for inputValue while designing the Currency Converter app?


Text Input


Dropdown


Text Area

4. What does the variable Value indicate?

Shows Sri Lanka Rupees and US Dollars.

Rs: , \$, ¥, £ indicates currency units.

The "inputValue" label shows the number you entered.

5. When an amount of 2 rupees is converted into US dollars (2×0.0031), an amount of 0.0061 dollars should be received. Select the block to be applied to show that amount in "labelResult".

```
setText(▼"labelResult", "$ " + result.toFixed(2) );
```

```
setText(▼"labelResult", "$ " + result.toFixed(4) );
```

```
setText(▼"labelResult", "$ " + result.toFixed(3) );
```