

IF120203-Web Programming

04: JavaScript Framework

PRU/SPMI/FR-BM-18/0222

PRADITA UNIVERSITY



Goals - Using jQuery

- To learn about JavaScript and its role in web development
- To understand how jQuery, a popular JavaScript library, is used to simplify DOM manipulation and event handling
- To learn about JavaScript functions, variables, and control flow structures using jQuery
- To apply jQuery code to enhance the functionality of the currency converter web page from the previous session

Introduction to jQuery

- jQuery is a fast, small, and feature-rich JavaScript library.
- It simplifies HTML document traversing, event handling, animating, and Ajax interactions.
- jQuery is designed to change the way that you write JavaScript, making common tasks much simpler and more efficient.
- It allows you to achieve complex interactions and effects with fewer lines of code compared to plain JavaScript.
- jQuery provides a convenient way to manipulate the Document Object Model (DOM) and create dynamic and interactive web pages.

JavaScript converter.js - Using jQuery

The logo for Pradita University is located in the top right corner. It features a stylized graphic of three vertical bars in orange and yellow, with a red gear-like shape above them. To the right of the graphic, the text "PRADITA" is written in green, and "University" is written in a smaller green font below it.

- Modify file converter.js
- Function for Reverse Button (Next Pages)
- Function for Convert Button (Next Pages)

JQuery Reverse Button

```
$(document).ready(function () {  
    $("#reverse").click(function () {  
        const fromSelect = $("#from");  
        const toSelect = $("#to");  
        const temp = fromSelect.val();  
        fromSelect.val(toSelect.val());  
        toSelect.val(temp);  
    });  
    // Next is Convert Button
```

JQuery Convert Button - Part 1

```
$("#convert").click(async function () {  
  const fromSelect = $("#from");  
  const toSelect = $("#to");  
  const apiKey = "  
    fca_live_iq1WvbaON67X9adHTaJiqEszDhP6jtDz7louUbWv";  
  const fromCurrency = fromSelect.val();  
  const toCurrency = toSelect.val();
```

JQuery Convert Button - Part 2

```
const encodedFromCurrency = encodeURIComponent(fromCurrency)
;
const encodedToCurrency = encodeURIComponent(toCurrency)
;

const url = `https://api.freecurrencyapi.com/v1/latest?
    apikey=${apiKey}&currencies=${encodedToCurrency}&
    base_currency=${encodedFromCurrency}`;
const options = {
    method: "GET",
};
```

JQuery Convert Button - Part 3

```
try {  
    const response = await fetch(url, options);  
    const data = await response.json(); // Parse the  
        response body as JSON  
    // console.log(data); // For debugging purposes  
    const rate = data["data"][toSelect.val()]; // Get the  
        rate value for the selected currency  
    const amount = $("#amount").val();  
    const converted = (amount * rate).toLocaleString(  
        undefined, {  
            minimumFractionDigits: 2,  
            maximumFractionDigits: 2,  
        });  
}
```


JQuery Convert Button - Part 4

```
let fromCurrencySymbol;  
    if (fromSelect.val() === "IDR") {  
        fromCurrencySymbol = "Rp. ";  
    } else if (fromSelect.val() === "USD") {  
        fromCurrencySymbol = "$ ";  
    } else if (fromSelect.val() === "EUR") {  
        fromCurrencySymbol = "€ ";  
    } else if (fromSelect.val() === "GBP") {  
        fromCurrencySymbol = "£ ";  
    }  
}
```

JQuery Convert Button - Part 5

```
let toCurrencySymbol;  
    if (toSelect.val() === "IDR") {  
        toCurrencySymbol = "Rp. ";  
    } else if (toSelect.val() === "USD") {  
        toCurrencySymbol = "$ ";  
    } else if (toSelect.val() === "EUR") {  
        toCurrencySymbol = "€ ";  
    } else if (toSelect.val() === "GBP") {  
        toCurrencySymbol = "£ ";  
    }  
}
```

JQuery Convert Button - Part 6

```
$("#from-result").text(fromCurrencySymbol + amount);  
$("#from-currency").text(fromSelect.val());  
$("#to-result").text(toCurrencySymbol + converted);  
$("#to-currency").text(toSelect.val());  
const exchangeRateLabel = $("#exchange-rate");  
const formattedRate = parseFloat(rate).toFixed(2);  
const exchangeRateText = '1 ${fromSelect.val()} = ${  
    formattedRate} ${toSelect.val()}';
```

JQuery Convert Button - Part 7

```
        exchangeRateLabel.text(exchangeRateText);  
    } catch (error) {  
        console.error(error);  
    }  
});  
});
```

Thank You

