

## LAB 8 – JavaScript

At the end of this lab, students should be able to:

- Insert JavaScript codes into a HTML document.
- Retrieve data from forms to be processed and display the required output.
- Incorporate JavaScript built-in functions as well as user defined functions to process data from forms.

### Question 1

This JavaScript program will convert grams to either kilograms, pounds or ounce based on the user's choice. (Refer to HTML code given)

- When the button is clicked, it will trigger function *get\_input()*.
- In function *get\_input()*:
  - Get the gram value and the user's choice of conversion from the form.
  - Using *if..else* statements:
    - If the choice is kilograms, call function *convert\_kilogram(...)* and pass gram as argument.
    - If the choice is pounds, call function *convert\_pound(...)* and pass gram as argument.
- In function *convert\_kilogram()*:
  - Convert grams to kilogram and display the information on the paragraph (id=result) given.
  - 1 gram is equivalent to 0.001 kilograms.
- In function *convert\_pound()*:
  - Convert grams to pound and display the information on the paragraph (id=result) given.
  - 1 gram is equivalent 0.0022 pounds.



The screenshot shows a web form with the following elements:

- A text input field with the label "Enter a value in grams :" and the value "250".
- A dropdown menu with the label "Convert to :" and the selected option "Pound".
- A button labeled "Convert Now".

250 grams = 0.55 pounds

## Question 2

Based on the HTML code given, write the JavaScript codes to calculate a customer's bill based on their purchase of custom mugs.

- In function *order\_data()*:
  - Get all required information from the form.
  - Call function *get\_price(...)* and pass mug colour as argument.
  - Calculate the bill.
  - If delivery is required, the charges is RM7.00.
  - Call function *print\_bill(...)* and pass all necessary variables so that a bill can be shown to the customer.
- In function *get\_price(...)*:
  - Based on the choice of mug colour, identify and return the mug price.
  - Use switch case statement.
- In function *print\_bill(...)*:
  - Display all the bill details as shown below.

### Custom Mug

Make a custom order today!

Name :

Colour ☒ Royal Blue (RM 3.50) ☐ Red and Orange (RM 5.90) ☐ Gold (RM 7.50)

Quantity :

Delivery : ☒ Check if delivery is required

Customer Name : Yap  
Mug Price : RM3.50  
Quantity : 3  
Delivery : RM7.00(Yes)  
Total : RM10.50

### Custom Mug

Make a custom order today!

Name :

Colour ☐ Royal Blue (RM 3.50) ☐ Red and Orange (RM 5.90) ☒ Gold (RM 7.50)

Quantity :

Delivery : ☐ Check if delivery is required

Customer Name : Alvin  
Mug Price : RM7.50  
Quantity : 3  
Delivery : RM0.00(No)  
Total : RM22.50

### Question 3

Write the JavaScript codes to calculate the cost of sending a message.

- In function *input()*:
  - Get all information from the form.
  - Call function *get\_rate(...)* and pass peak hour value as argument.
  - Calculate the bill. The rate is per each 10 characters of the message inclusive of spaces.
  - Call function *display\_bill(...)* and pass all required variables to be displayed on the browser.
- In function *get\_rate(...)*:
  - Using a switch case statement, identify the rate for the message.
  - Peak hour rate is RM0.03 while non peak hour rate is RM0.01.
  - Return the rate.
- In function *display\_bill(...)*:
  - Display all the information as shown below.

To :

Message :

Peak Hour : ☐ Yes ☒ No

To : Yap  
Your message : This lab questions are very difficult  
Peak Hour : No  
Rate : RM 0.01  
Payment : RM 0.04

To :

Message :

Peak Hour : ☒ Yes ☐ No

To : Mr. Khoh  
Your message : I think this lab is fun to do  
Peak Hour : Yes  
Rate : RM 0.03  
Payment : RM 0.09

#### Question 4

Write the JavaScript codes to display the bill for the purchase of flowers by customers.

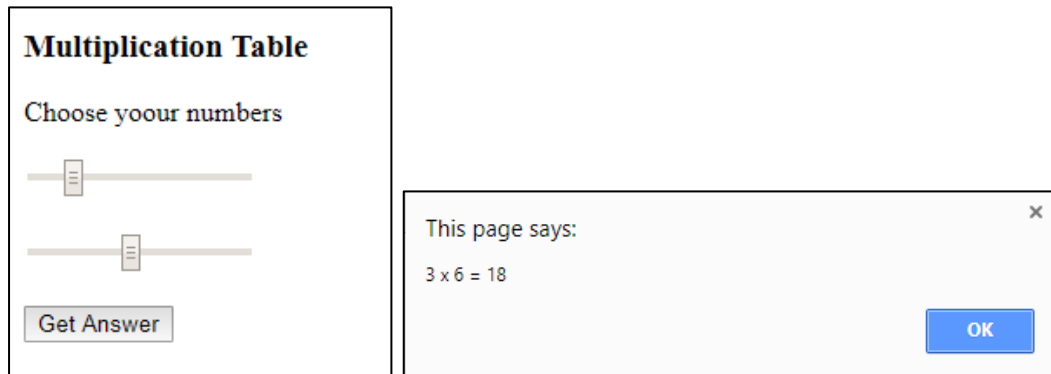
- Once the button is clicked, it will call function `get_data()`.
- Function `get_data()`:
  - Get flower, quantity and decoration type from the form.
  - Call function `get_flower_price(...)` and pass the flower name.
  - Call function `get_deco_price(...)` and pass the decoration type.
  - Calculate total price.
  - Display all necessary information on the browser.
- Function `get_flower_price()`:
  - Identify the flower price using a switch case statement.
  - Rose – RM 2.30, Lily – RM 3.30 and Tulip – RM 1.30.
  - Return the flower price.
- Function `get_deco_price(...)`:
  - Using if..else statement, identify the decoration price. "Basket" costs RM10.00 and "Bouquet" costs RM 20.00.
  - Return the decoration price.

<p>Flower <input type="radio"/> Rose <input checked="" type="radio"/> Lily <input type="radio"/> Tulip</p> <p>Decoration <input type="text" value="Bouquet"/></p> <p>Stalks : <input type="text" value="10"/></p> <p><input type="button" value="KIRA"/></p>	<p>Flower : Lily ( \$ 3.30 )</p> <p>Decoration : Bouquet ( \$ 20.00 )</p> <p>Stalks : 10</p> <p>Total : \$ 53.00</p>
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### Question 5

Write the JavaScript codes to display the results of multiplication of 2 numbers retrieved from the range input element.

- In function *timetable()*:
  - Get the range values from the form.
  - Multiply the values and show the result using an alert();



The image shows a web form titled "Multiplication Table" with the instruction "Choose yoour numbers". It contains two horizontal range input sliders. Below the sliders is a button labeled "Get Answer". To the right of the form, an alert dialog box is displayed with the text "This page says:" and "3 x 6 = 18". The dialog box has a close button (X) in the top right corner and an "OK" button at the bottom right.

## Question 6

Write the JavaScript codes to calculate the cost of sending a message.

- In function *input()*:
  - Get the movie code, amount of adult and child from the form.
  - Based on the movie code, use a switch case statement to identify the movie name and ticket price.
  - Use a for loop to identify which add-on food code was chosen by the user and store the codes in an array.
  - Use another for loop:
    - To identify the name of the add-on food and price using if..else statements.
    - Display each add-on food and price on the browser.
    - Calculate the total add-on price.
  - Calculate the total payment for the entire purchase of tickets and add-on food.
  - Display the necessary information on the browser.

### Book A Movie Ticket

Choose your movie and add-on

Movie Title: Blade Runner (RM 9.30) ▼

Adult : 2

Child : 1

Add-Ons: ☐ Popcorn (RM 7.90) ☒ Nachos (RM 5.50) ☒ Soda (RM 3.50)

Buy Now

Movie Title : Blade Runner ( RM 9.30 )  
Adult Total : RM 18.60 ( 2 x RM 9.30 )  
Child Total : RM 6.51 ( 1 x RM 6.51 )  
Add-On Total : RM9.00  
Add-On Details :  
-- Nachos (RM 5.50)  
-- Soda (RM 3.50)  
  
Total Bill : RM34.11

### Book A Movie Ticket

Choose your movie and add-on

Movie Title: Coco (RM 10.50) ▼

Adult : 1

Child : 2

Add-Ons: ☐ Popcorn (RM 7.90) ☐ Nachos (RM 5.50) ☐ Soda (RM 3.50)

Buy Now

Movie Title : Coco ( RM 10.50 )  
Adult Total : RM 10.50 ( 1 x RM 10.50 )  
Child Total : RM 14.70 ( 2 x RM 7.35 )  
Add-On Total : RM0.00  
  
Total Bill : RM25.20