

#### CSM3103

### BACHELOR OF COMPUTER SCIENCE (MOBILE COMPUTING) WITH HONORS

LAB 5

#### **SEMESTER II 2023/2024**

Prepared for:

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#### Task 1

- a. Get the code from https://frend.odaje.biz/lab5/task1.html, and evaluate and test the code.
  - i. What is the id of button and input field
    Answer:
     <button id="button\_change">
     <input id="input color" value="Purple"></input>
  - ii. What happened when you clicked change button and why? Answer:

Nothing change. Because there is no function for the button

- b. Your mission: when the button is clicked, all occurrences of the word Black to be changed to the text in the input field.
  - a. Select the change button

```
var button = $('#button_change');
```

b. Setting a click listener for button

```
$(button).click(function(){
    //your next code is here
});
```

c. Retrieving and storing the input value

```
//select the input color
var input_color = $('#input_color');

//select the input value
var input_value = $(input_color).val();
```

d. Select all appropriates black text by class selector

```
//select all appropriate black text recognise by class
var element = $('.door_color');
```

e. Replace the text with the input value

```
//changed the selected text color to inpiut value color
$(element).html(input_value);
```

f. Test and evaluate your code. Comment on the new behaviour of your code Answer:

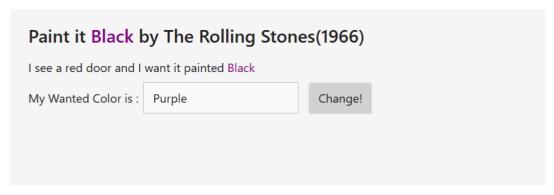
The output remains the same result.

- **g.** Basically, all those id and value in the code can be access directly without using any variables. **Rewrite the code by directly using the jQuery selector**
- h. Rewrite the code: can refer to task 2 if in doubt
  - i. Instead of input field, change it to dropdown which display available color understood by HTML (use select tag)

- ii. Retrieve the value from the select tag
- iii. Change the color of all appropriate text to selected color

#### Code:

```
| .cow_color { font-weight: bold; }
| c/style>
| c/styl
```



#### Task 2

- a. Get the code from https://frend.odaje.biz/lab5/task2.html, and evaluate and test the code
  - i. What id's that exist in the code above? Answer:

```
<div class="container">
<div id="boxes">
<div id="toggles">
```

- ii. Open the file inside browser, what have you see in the browser?Answer:It shows Toggle Colors, Toggle Rounded Borders, Add a New Box button.
- iii. Click any button, what happened? Why

Answer:

No result is shown. Because there is no function for the button

- b. Your mission:
  - i. Click on Toggle Colors button: Toggles the color between white and cardinal
  - ii. Click on Toggle Rounded Borders: Toggles the appearance of a border on the boxes
  - iii. Click add a new box: adds one new box to the container
- c. Implements the following to accomplished your mission
  - i. Add outlined class to each <div>. Refer to <div> for box2 as an example. Save and open the file in browser
    - i. What changes have you see?
  - ii. Add a click function to button\_toggle\_color, and implementing change color process

```
//add button_toggle_color click function
$('#button_toggle_colors').click(function(){
    //get box1
    var box1 = $('#box1');
    //check and changed background color of box1
    if($(box1).css('background-color')==colorTeal){
        //remove the color
        $(box1).css('background-color','');
}else{
        //put back colorTeal as background
        $(box1).css('background-color',colorTeal);
}
});
```

iii. Create an event listener for button\_toggle\_roundedges

iv. Inside the function add the following code

```
$(".box").each(function(){
    if ($(this).hasClass('round-edge')){
       $(this).removeClass('round-edge');
    }else{
       $(this).addClass('round-edge');
    }
});
```

v. Based on code in iv, can you modify a code in ii, so it change all box background and returned all to vanilla as well!

- vi. Create an event listener for button\_add\_box.
- vii. Inside the function put the following code
  - i. Create new element using javascript
    var new\_box = document.createElement('div');
  - ii. Get current number of element with class .box
    var existingBoxes = \$(".box").length;
  - iii. With the current number of box create new id for new box

```
var nextBoxId = existingBoxes+1;
$(new_box).attr("id","box"+nextBoxId);
```

iv. Add two classes (box and outlined) to new\_box

```
$(new_box).addClass("box");
$(new_box).addClass("outlined");
```

v. Finally, attached new box into box container

```
$("#boxes").append(new_box);
```

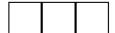
- viii. Test and evaluate your code
- ix. Modify the code above so that when button clicked, it only show one element which selected randomly .

Code:

```
<!doctype html>
    <title>Lab 4: Task 2</title>
    <meta charset="utf-8">
      #boxes { margin-top: 50px; float: left; width: 100%; }
      #toggles { float: left; width: 100%; margin-top: 10px; }
      #info { float: left; margin-top: 5px; }
      .box { width: 50px; height: 50px; float: left; }
.outlined { border: 2px solid □black; }
      .round-edge { border-radius: 15px; }
      .teal { background-color: ■teal; }
      src="https://code.jquery.com/jquery-3.1.1.js"
integrity="sha256-16cdPddA6VdVInumRGo6IbivbERE8p7CQR3HzTBuELA="
      crossorigin="anonymous"></script>
    $(document).ready(function(){
      var colorTeal = "rgb(57, 204, 204)";
        $(".box").each(function(){
         if($(this).css('background-color') == colorTeal){
   $(this).css('background-color', '');
           $(this).css('background-color', colorTeal);
                                                     Ln 41, Col 1 Spaces: 2 UTF-8 CRLF HTML Q
```

```
$('#button_toggle_roundedges').click(function(){
  $(".box").toggleClass("round_edge");
$('#button_add_box').click(function(){
  var newBox = document.createElement('div');
   var existingBoxes = $(".box").length;
  var nextBoxId = existingBoxes + 1;
  $(newBox).attr("id", "box" + nextBoxId);
$(newBox).addClass("box");
$(newBox).addClass("outlined");
  $("#boxes").append(newBox);
<div class="container">
  <div id="boxes">
     <div id="box1" class="box outlined"></div>
    <div id="box2" class="box outlined"></div>
    <h2>Toggles</h2>
     <button class="btn" id="button toggle colors"</pre>
      >Toggle Colors</button>
     <button class="btn" id="button_toggle_roundedges"</pre>
       >Toggle Rounded Borders</button>
     <button class="btn" id="button_add_box"</pre>
       >Add a New Box</button>
                                             Ln 41, Col 1 Spaces: 2 UTF-8 CRLF HTML
```

```
$('#button_add_box').click(function(){
  var newBox = document.createElement('div');
  var existingBoxes = $(".box").length;
  var nextBoxId = existingBoxes + 1;
  $(newBox).attr("id", "box" + nextBoxId);
$(newBox).addClass("box");
$(newBox).addClass("outlined");
  $("#boxes").append(newBox);
<div class="container">
  <div id="boxes">
    <div id="box1" class="box outlined"></div>
<div id="box2" class="box outlined"></div>
  <div id="toggles">
   <h2>Toggles</h2>
    <button class="btn" id="button_toggle_colors"</pre>
     >Toggle Colors</button>
    <button class="btn" id="button_toggle_roundedges"</pre>
     >Toggle Rounded Borders</button>
    <button class="btn" id="button_add_box"</pre>
     >Add a New Box</button>
```



# Toggles

Toggle Colors Toggle Rounded Borders Add a New Box



# Toggles

Toggle Colors Toggle Rounded Borders Add a New Box

#### Task 3

- a. Get the code https://frend.odaje.biz/lab5/task3.html, and evaluate and test the code:
  - i. Determine the id's of each element
  - ii. Recognise any input element that associated with the form
  - iii. Your Task are:
    - 1. Add DatePicker
    - 2. Use selectable interaction
    - 3. Use Sortable widget
    - 4. Use the tooltip
- b. Inserting the datepicker into a form
  - i. In the document ready function add this code

```
$('#date').datepicker();
```

- i. Can you set the date to limit the selectable date range to only include dates from the previous two weeks to the next two weeks.
- c. Using selectable for enrolment type
  - i. Comment radiobutton input
  - ii. Add the following code

```
     class="ui-widget-content" title="taking 6.813">Undergraduate
     class="ui-widget-content" title="taking 6.831">Graduate
```

iii. Add some css in style section

```
#selectable .ui-selecting {
   background: #FECA40; }

#selectable .ui-selected {
   background: #F39814; color: white; }

#selectable li:before { content: "\2713 "; color: transparent; }

#selectable li.ui-selecting:before { content: "\2713 "; color: black; }

#selectable li.ui-selected:before { content: "\2713 "; color: white; }

#selectable { list-style-type: none; margin: 0; padding: 0; width: 150px; cursor: pointer; }

#selectable li {
   margin: 3px; padding: 0.4em; font-size: 1.0em; height: 16px; }
```

iv. And control the behaviour using jQuery selector

```
$("#selectable").selectable();
```

v. How can we retrieve the value of the selected item?Answer:Use

Ose of id selectable >

- d. Using sortable for the color input
  - i. Comment all input element that related to color selections
  - ii. Replace with the following code

iii. Adding a control to sort the list and disable the selection

```
$("#sortable").sortable();
$("#sortable").disableSelection();
```

- iv. Check your output, now you can drag any color to a new position
- v. Add the following style to your code

```
#sortable {
    list-style-type: none;
    margin: 0;
    padding: 0;
    width: 150px;
}
#sortable li {
    margin: 0 3px 3px 3px;
    padding: 0.4em;
    padding-left: 1.5em;
    font-size: 1.0em;
    height: 12px;
}
```

vi. What do you think this CSS did? You can reverse the step to see the changes after and before the use of CSS

Answer:

To add the styling into the elements of the page

vii. Add the following span with class before color code in the in (ii) above

```
<span class="ui-icon ui-icon-arrowthick-2-n-s"></span>
```

e. Adding a Tooltip

i. Add the following code inside document ready function

ii. Add the following css

```
.color_swatch{ height:50px; width: 50px; }
```

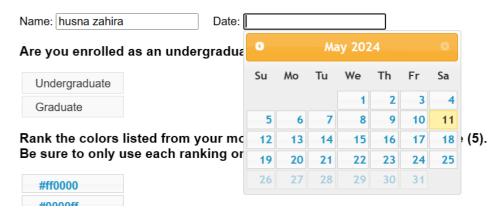
```
<!doctype html>
             <title>Lab 2: Exercise 3</title>
             <meta charset="utf-8">
             src="https://code.jquery.com/jquery-3.1.1.js"
integrity="sha256-16cdPddA6VdVInumRGo6IbivbERE8p7CQR3HzTBuELA="
crossorigin="anonymous"></script>
              src="https://code.jquery.com/ui/1.12.1/jquery-ui.js"
integrity="sha256-T0Vest3yCU7pafRw9r+settMBX6JkKN06dqBnpQ8d30="
             "https://code.jquery.com/ui/1.12.1/themes/ui-lightness/jquery-ui.css">
               body {
                 margin: 20px;
               #name_input {
                 float: left;
                 margin-bottom: 20px;
                 margin-right: 20px;
               #date_input {
  float: left;
                 margin-bottom: 20px;
                 clear:both;
               .rank_color {
0 🕸 0 🕭 0
```

```
width: 20px;
  margin-top: 2px;
#sortable{
 list-style-type: none;
  margin: 0;
  padding: 0;
#sortable li{
 margin: 0 3px 3px 3px;
  padding: 0.4em;
  padding-left: 1.5em;
  height: 12px;
#selectable .ui-selecting{
  background: #FECA40;
#selectable .ui-selected{
background: ■#F39814;
  color: ■white;
#selectable li:before{
  content: "\2713 ";
#selectable li.ui-selecting:before{
  content: "\2713 ";
  color: □black;
```

```
#selectable li.ui-selecting:before{
                content: "\2713 ";
color: □black;
              #selectable li.ui-selecting:before{
               content: "\2713 ";
color: ■white;
               list-style-type: none;
                margin: 0;
                padding: 0;
                width: 150px;
               margin: 3px;
                padding: 0.4em;
                font-size: 1.0em;
                height: 16px;
             .color swatch{
               width: 20px;
                height: 20px;
            $(document).ready(function() {
                $('#date').datepicker({
107
0 ∆ 0 ⋈ 0
                    minDate: '-2w'.
```

## jQuery UI-Survey

#### **General Information**



# jQuery UI-Survey

#### **General Information**

Name: husna zahira Date: 05/11/2024

## jQuery UI-Survey

#### **General Information**

Name: husna zahira Date: 05/11/2024

Are you enrolled as an undergraduate or a graduate?



Rank the colors listed from your most favorite (1) to your least favorite (5). Be sure to only use each ranking once.



## jQuery UI-Survey

#### **General Information**

Name:	husna zahira	Date:	05/11/2024

Are you enrolled as an undergraduate or a graduate?



Rank the colors listed from your most favorite (1) to your least favorite (5). Be sure to only use each ranking once.



#### Task 4

- a. Get the code from https://frend.odaje.biz/lab5/task3.html, and evaluate and test the code.
- b. Getting the context of the canvas
  - a. Add the following code:

```
var canvas = document.getElementById("myCanvas");
var ctxt = canvas.getContext('2d');
```

- i. What is the meaning of context in this case?
- c. Drawing a triangle to canvas
  - a. Setup the fillStyle, strokeStyle and linewidth.

```
ctxt.fillStyle = '#f00';
ctxt.strokeStyle = '#000';
ctxt.lineWidth = 3;
```

b. Describe the purpose of each method in (a)

Answer:

'fillStyle' sets the style of the shapes

'strokeStyle' sets the style to use lines for the shapes

'lineWidth' sets the width of lines when stroking the shapes

c. Put these codes into an appropriate function:

```
ctxt.beginPath();
ctxt.moveTo(60, 240);
ctxt.lineTo(240, 240);
ctxt.lineTo(150, 60);
ctxt.closePath();
ctxt.fill();
ctxt.stroke();
```

- d. Test you code and evaluate the output
- e. Rearrange the position of coordinate and test your code.
- f. What is the use of moveTo methods above?

Answer:

Used to set the starting point for drawing path on canvas

- d. a new rotate triangle function
  - a. Set the new position of the new triangle at the middle of previous triangle

```
ctxt.translate(canvas.width / 2, canvas.height / 2);
ctxt.rotate(Math.PI / 4);
ctxt.beginPath();
```

b. Start drawing a new triangle using a new coordinate

```
ctxt.moveTo(-90, 90);
ctxt.lineTo(90, 90);
ctxt.lineTo(0, -90);

ctxt.closePath();
ctxt.fill();
ctxt.stroke();
```

- c. Test and evaluate your result.
- d. You can press the rotate many times, and can have different triangle at different location, why it's happened?

Answer:

The function applies a rotation transformation to the canvas

- e. Clear the canvas
  - a. Put this code to clear the canvas

```
ctxt.clearRect(0, 0, canvas.width, canvas.height);
```

b. Can you write more better clear canvas, to clear all canvas

#### Code:

```
width: 20px;
     margin-top: 2px;
  border: 1px solid □black;
$(document).ready(function() {
    var canvas = document.getElementById("myCanvas");
     var ctxt = canvas.getContext('2d');
    ctxt.fillStyle = "#F00";
ctxt.strokeStlye = "#000";
     ctxt.lineWidth = 3;
     ctxt.beginPath();
    ctxt.lineTo(150, 60);
ctxt.closePath();
     ctxt.stroke();
function rotateTriangle(){
     ctxt.clearRect(0, 0, canvas.width, canvas.height);
     ctxt.translate(canvas.width / 2, canvas.height / 2);
    ctxt.save();
ctxt.rotate(Math.PI / 4);
     ctxt.beginPath();
     ctxt.moveTo(-90, 90);
     ctxt.lineTo(90, 90);
ctxt.lineTo(0, -90);
ctxt.closePath();
```

```
function rotateTriangle(){
    ctxt.clearRect(0, 0, canvas.width, canvas.height);
    ctxt.translate(canvas.width / 2, canvas.height / 2);
    ctxt.save();
    ctxt.beginPath();
    ctxt.lineTo(90, 90);
    ctxt.lineTo(90, 90);
    ctxt.dineTo(0, -90);
    ctxt.fill();
    ctxt.stroke();
    ctxt.restore();
}

function clearCanvas(){{
    ctxt.stroke();
    ctxt.clearRect(0, 0, canvas.width, canvas.height);
}

function clearCanvas(){{
    minDate: '-2w',
    maxDate: '+2w'
    });

$("#date').datepicker({
    minDate: '-2w',
    maxDate: '+2w'
    });

$("#rotateBtn").click(function() {
    rotateTriangle();
    });
}

s(script)
    </head>
    </hr>
    clabel for="name">Name:</label>
    </hr>
    cinout type="text" id="name">
    </hr>
</hr>
```

```
ctxt.closePath();
ctxt.fill();
ctxt.stroke();
ctxt.restore();

function clearCanvas(){
    ctxt.clearRect(0, 0, canvas.width, canvas.height);

function clearCanvas(){
    ctxt.clearRect(0, 0, canvas.width, canvas.height);

    ctxt.clearRect(0, 0, canvas.width, canvas.height);

    ctxt.clearRect(0, 0, canvas.width, canvas.height);

    ctxt.clearRect(0, 0, canvas.width, canvas.height);

    ctxt.closePath();
    ctxt.stroke();
    ctxt.restore();

    ctxt.closePath();
    ctxt.stroke();
    ctxt.restore();

    ctxt.closePath();
    ctxt.stroke();
    ctxt.restore();

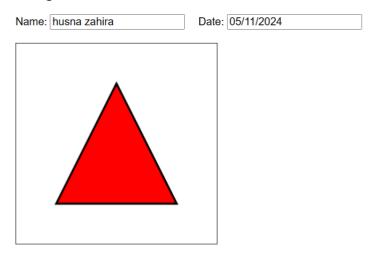
    ctxt.closePath();
    ctxt.stroke();
    ctxt.restore();

    ctxt.closePath();
    ctxt.stroke();
    ctxt.closePath();
    ctxt.stroke();
    ctxt.closePath();

    ctxt.stroke();
    ctxt.stroke();
    ctxt.closePath();
    ctxt.stroke();
    ctxt.closePath();
    ctxt.closePath();
    ctxt.stroke();
    ctxt.closePath();
    ctxt.stroke();
    ctxt.closePath();
    ctxt.close
```

# jQuery UI-Survey

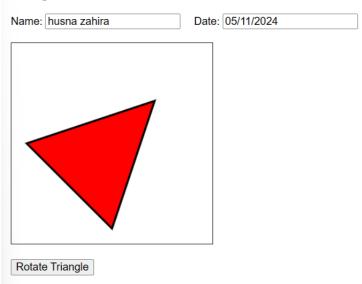
### **Triangle Rotation**



Rotate Triangle

# jQuery UI-Survey

### **Triangle Rotation**



Link Github:

https://github.com/zahirarzli/Lab-5-Front-End