



## Sheet 2

### Creating First Java Script Programs

**Objectives:** On successful completion of this sheet, students should be able to

1. Write simple JavaScript programs.
2. Use the different output statements and differentiate between them.
3. Use HTML tags within the JavaScript code.
4. Use the *if* statements.

Q1) Write a first JavaScript program to display **hello to HTML, CSS, and JavaScript World!**". The message will be of heading 1 and its color is blue (Using both `document.write()` and `document.innerHTML`).

Q2) Write a JavaScript program that defines two variables `x` and `y`, then prints in the HTML Web page their summation, difference, product, division, and % (mod) of `x` and `y`. The output should be displayed as shown below.

```
*****Simple Calculator*****  
  
x=33 and y=10  
  
sum=43  
diff=23  
  
prod=330  
div=3.3  
  
mod=3  
  
x++=34  
  
y--=9  
  
*****End Simple Calculator*****
```

Q3) Modify the above question to display the results in table as shown below.

*****Simple Calculator*****			
x=	33	y=	10
sum=	43		
diff=	23		
prod=	330		
div=	3.3		
mod=	3		
x++=	34		
y--=	9		
*****End Simple Calculator*****			

Q4) Write JavaScript and HTML code that read an integer x from the user and outputs the value of f (x), where

$$f(x) = \begin{cases} x^2 & \text{if } x < 0 \\ x^2 - 4 & \text{if } 1 \leq x < 20 \\ x = \frac{\sqrt{x-4}}{2x} & \text{if } 20 \leq x \leq 35 \\ \text{undefined} & \text{otherwise} \end{cases}$$

The web page will be displayed as shown right.  
Try to input x=-5, 0, 25, and 40.

The screenshot shows a web page with a light blue header containing the title "F(x)". Below the header, the function definition is displayed in a large font. At the bottom, there is a form with two input fields: "x" with the value "15" and "f(x)" with the value "221". A blue "Calculate" button is positioned to the right of the "f(x)" field.

Q5) Write JavaScript and HTML code that looks like the following fig:

The screenshot shows a registration form with a title "Registration form". Below the title, there are two input fields: "Enter your name:" and "Enter your email:". A "Check Myname" button is located below the email field.

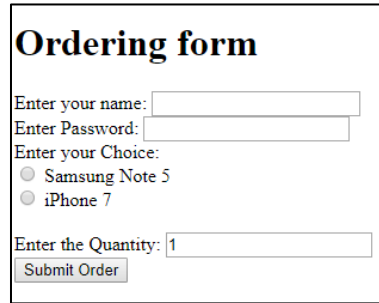
- When clicking on the button, if you do not enter anything inside the text of the name an error message should appear like that:

The screenshot shows the same registration form as before, but with an error message "You should enter your name" displayed in green text above the name input field.

- But if you enter any name inside this text, a welcome alert message should appear like that:

The screenshot shows the registration form with the name field filled with "XYZ". An alert box is displayed on the right side of the page with the message "This page says Thanks for registration XYZ" and an "OK" button.

Q6) Write JavaScript and HTML code that looks like the following fig:



**Ordering form**

Enter your name:

Enter Password:

Enter your Choice:

☐ Samsung Note 5

☐ iPhone 7

Enter the Quantity:

- The name should be “XYZ” and the password should be “1234”
- When clicking on the button, if you entered wrong name and/or password, an error message should appear beside the textfield in red color.
- If you entered the correct data a confirmation alert message should appear containing the data you choiced.