

**National University of Computer and Emerging Sciences**



## **Lab Exercise 03**

*for*

Web Programming

Spring 2024

**FAST School of Computer Science**

## LABORATORY OUTCOMES

The practical/exercises in this section are psychomotor domain Learning Outcomes (i.e. subcomponents of the COs), to be developed and assessed to lead to the attainment of the competency.

This Course is designed to take the students full adventure of “**Full Stack Web Development.**”

### Today's Agenda

**Module 1: What is Bootstrap? Responsive Design, and Installation.**

**Module 2: Playing with Java Script**

## Module 1: What is Bootstrap and Responsive Design?

### 1. What is Bootstrap?

- Bootstrap is a free front-end framework for faster and easier web development
- Bootstrap includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many other, as well as optional JavaScript plugins
- Bootstrap also gives you the ability to easily create responsive designs

### 2. What is responsive design?

Responsive web design is about creating web sites which automatically adjust themselves to look good on all devices, from small phones to large desktops.



### 3. What is responsive design?

There are two ways to start using Bootstrap on your own web site.

You can:

1. Download Bootstrap from [getbootstrap.com](https://getbootstrap.com)
2. Include Bootstrap from a CDN.

[https://www.w3schools.com/bootstrap/bootstrap\\_ver.asp](https://www.w3schools.com/bootstrap/bootstrap_ver.asp)

## Module 2: Playing with Java Script

- JavaScript is the world's most popular programming language.
- JavaScript is the programming language of the Web.
- JavaScript is easy to learn.

### Why Study JavaScript?

JavaScript is one of the 3 languages all web developers must learn:

1. HTML to define the content of web pages
2. CSS to specify the layout of web pages
3. JavaScript to program the behavior of web pages

### JavaScript Can Change HTML Content

One of many JavaScript HTML methods is `getElementById()`.

The example below "finds" an HTML element (with id="demo"), and changes the element content (innerHTML) to "Hello JavaScript";

#### Example

```
document.getElementById("demo").innerHTML = "Hello JavaScript";
```

Try It Yourself »

<https://www.w3schools.com/js/default.asp>

**You are done with your exercise(s), make your submission on Classroom.**

**BEST WISHES**

## References

*W3Schools free online web tutorials*. Choose a Bootstrap Version (3, 4 or 5). (n.d.). Retrieved February 22, 2022, from [https://www.w3schools.com/bootstrap/bootstrap\\_ver.asp](https://www.w3schools.com/bootstrap/bootstrap_ver.asp)

JavaScript tutorial. (n.d.). Retrieved February 22, 2022, from <https://www.w3schools.com/js/default.asp>