Web Technology

SHIV NADAR

─ UNIVERSITY ─

CHENNAI

Javascript

**Department of Computer Science and Engineering
Shiv Nadar University**

Last Class Summary

- **CSS Introduction**
- **Inline style**
- **Internal Style**
- **External Style**
- **Multiple Style**
- **Selector Strings**
- **CSS Property**
- **Best practices**

K1

Introduction

- **Most Popular Programming Language**
- **Webpages – Dynamic and Interactive**
- **Javascript?**

Introduction

- **Most Popular Programming Language**
- **Webpages – Dynamic and Interactive**
- **Javascript**
  - **Java?**

Introduction

- **Most Popular Programming Language**
- **Webpages – Dynamic and Interactive**
- **Javascript**
  - **Java**
    - **Indonesia – Java Coffee Bean**
  - **Javascript is different from Java**
    - **Why – Javascript?**

K2

Introduction

- **Most Popular Programming Language**
- **Webpages – Dynamic and Interactive**
- **Javascript**
  - **Java**
    - **Indonesia – Java Coffee Bean**
  - **Javascript is different from Java**
    - **Javascript**
      - **Borrowed Concepts from Java**
        - **Object Oriented Programming**
    - **Java was popular (steal some popularity)**
    - **Netscape/Mosaic browser supported Java Applets**

Introduction

- **Most Popular Programming Language**
- **Webpages – Dynamic and Interactive**
- **Javascript**
- **Language?**

Introduction

Language

	English	Javascript	HTML
Alphabet	A-Z, a-z	A-Z, a-z	A-Z, a-z
Numbers	0-9	0-9, 0 and 1, 0-7, 0-F	0-9
Words	Words	Tokens	Nodes
Sentences	Grammar + Words = Sentences	Syntax + Tokens = Statements	Syntax + Nodes = Elements
Paragraph	Paragraph	Block	
Chapter/Book	Chapter/Book	Program	Web Page
Library	Library	Library	Website

K2

Introduction

- **Javascript – History**
  - **Reading Assignment -** JavaScript – Wikipedia

Introduction

- **Javascript – History**
  - **Reading Assignment -** JavaScript – Wikipedia
- **High-Level Language**

Introduction

- **Javascript – History**
  - **Reading Assignment -** [JavaScript – Wikipedia](#)
- **High-Level Language**
- **European Computer Manufacturer's Association (ECMA) script Standard**

K2

Introduction

- **Javascript – History**
  - **Reading Assignment -** JavaScript – Wikipedia
- **High-Level Language**
- **European Computer Manufacturer's Association (ECMA) script Standard**
- **Dynamically Typed**

K2

Introduction

- **Javascript – History**
  - **Reading Assignment -** JavaScript – Wikipedia
- **High-Level Language**
- **European Computer Manufacturer's Association (ECMA) script Standard**
- **Dynamically Typed**
- **Object Oriented Programming Language**

K2

Introduction

- **Javascript – History**
  - **Reading Assignment -** JavaScript – Wikipedia
- **High-Level Language**
- **European Computer Manufacturer's Association (ECMA) script Standard**
- **Dynamically Typed**
- **Object Oriented Programming Language**
- **Interpreted/ Just-in-time Compiled**

K2

Introduction

- **Javascript – History**
  - **Reading Assignment -** JavaScript – Wikipedia
- **High-Level Language**
- **European Computer Manufacturer's Association (ECMA) script Standard**
- **Dynamically Typed**
- **Object Oriented Programming Language**
- **Interpreted/ Just-in-time Compiled**
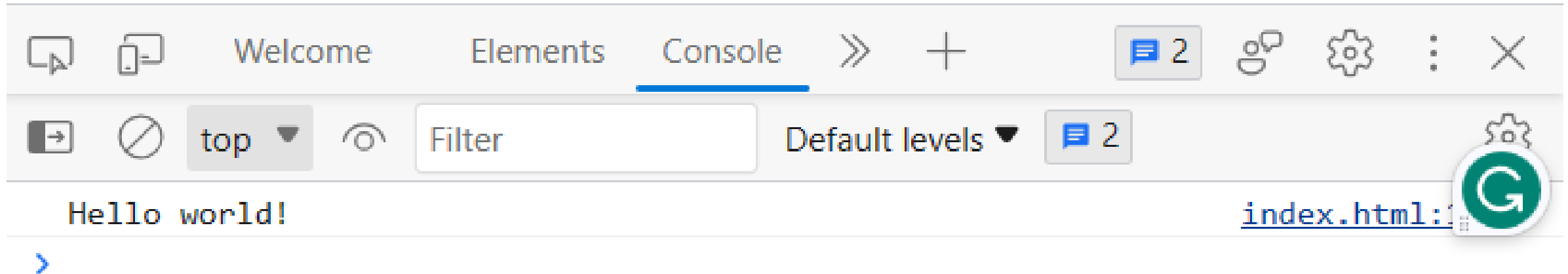
- **Types of Programming?**

K2

Introduction

- **Javascript – History**
  - **Reading Assignment - JavaScript – Wikipedia**
- **High-Level Language**
- **European Computer Manufacturer's Association (ECMA) script Standard**
- **Dynamically Typed**
- **Object Oriented Programming Language**
- **Interpreted/ Just-in-time Compiled**

- **Types of Programming**
  - **Inline Programming**
  - **External Programming**
- **<script> tag**

K2

Introduction – Example 1

- **The Hello World Program - Inline Programming**

- **\<script\> element**

- **Print in Console (Syntax:** `console.log ("");`)

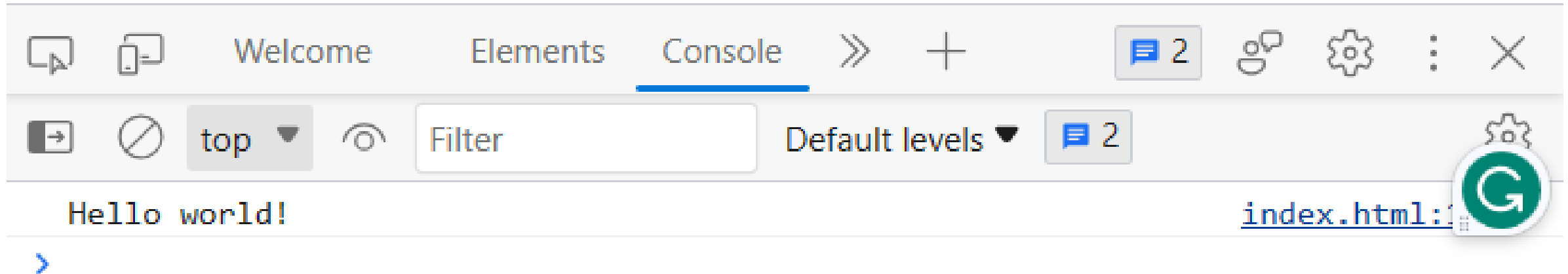# Introduction – Example 1

- **The Hello World Program - Inline Programming**

```
<!DOCType html>
<html>
    <head>
        <title> Inline Javascript </title>
    </head>
    <body>
        <script>
            console.log("Hello world!");
        </script>
    </body>
</html>
```
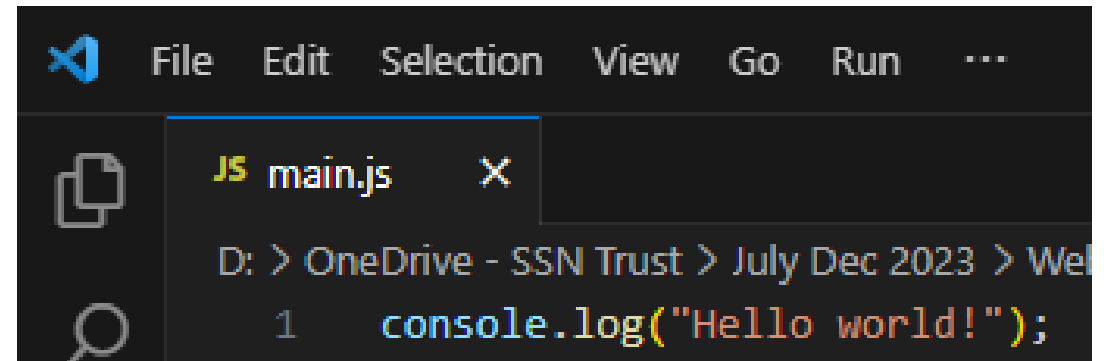
K3

Introduction – Example 2

- **The Hello World Program - External Programming (save as .js)**
- **<script> element. Include the Javascript file in src attribute of <script> element.**
- **Print in Console (Syntax: `console.log ("");`)**

K2

Introduction – Example 2

- **The Hello World Program - External Programming**
- **Script content - empty**

```html
<!DOCType html>
<html>
    <head>
        <title> External Javascript </title>
    </head>
    <body>
        <script src="main.js">
        </script>
    </body>
</html>
```

File   Edit   Selection   View   Go   Run   ...

JS main.js   ✕

D: > OneDrive - SSN Trust > July Dec 2023 > Wel

1   console.log("Hello world!");

K3

Introduction – Example 3

- **The Hello World Program - External Programming (save as .js)**
- **Pop an alert box. (Syntax:** `alert("");` **)**

This page says

Hello world!

OK

K2

Introduction – Example 3

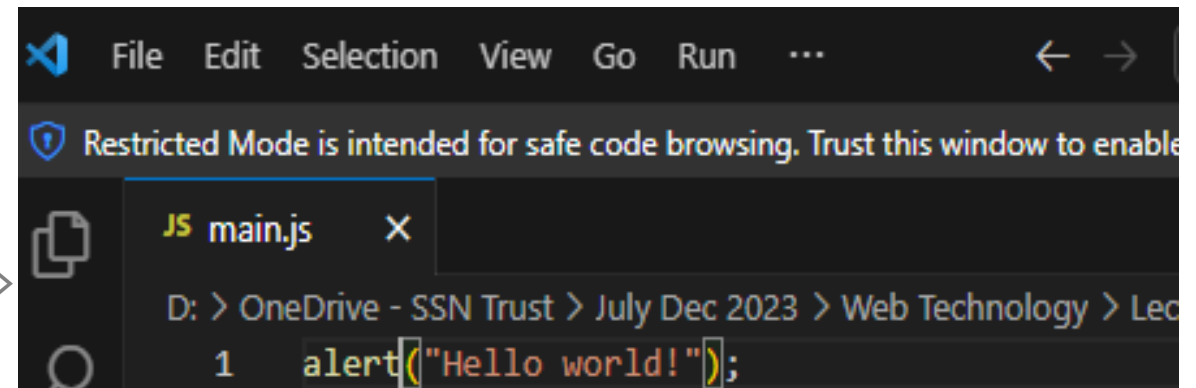- **The Hello World Program - External Programming**
- **Script content - empty**

```
<!DOCType html>
<html>
    <head>
        <title> External Javascript </title>
    </head>
    <body>
        <script src="main.js">
        </script>
    </body>
</html>
```
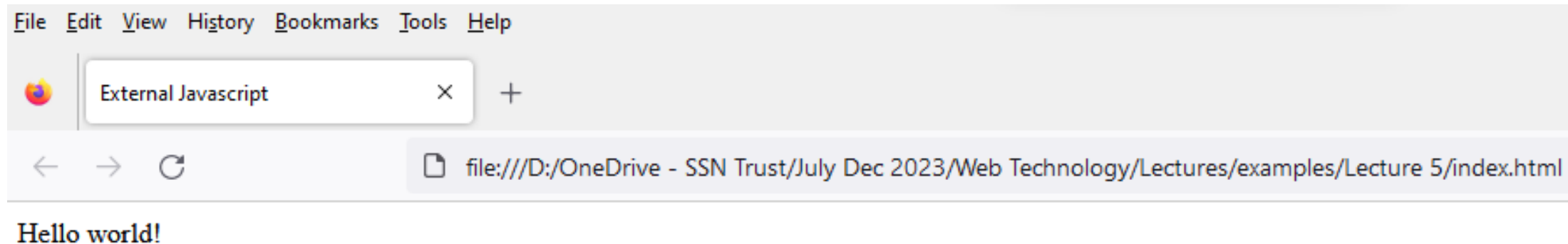

K3

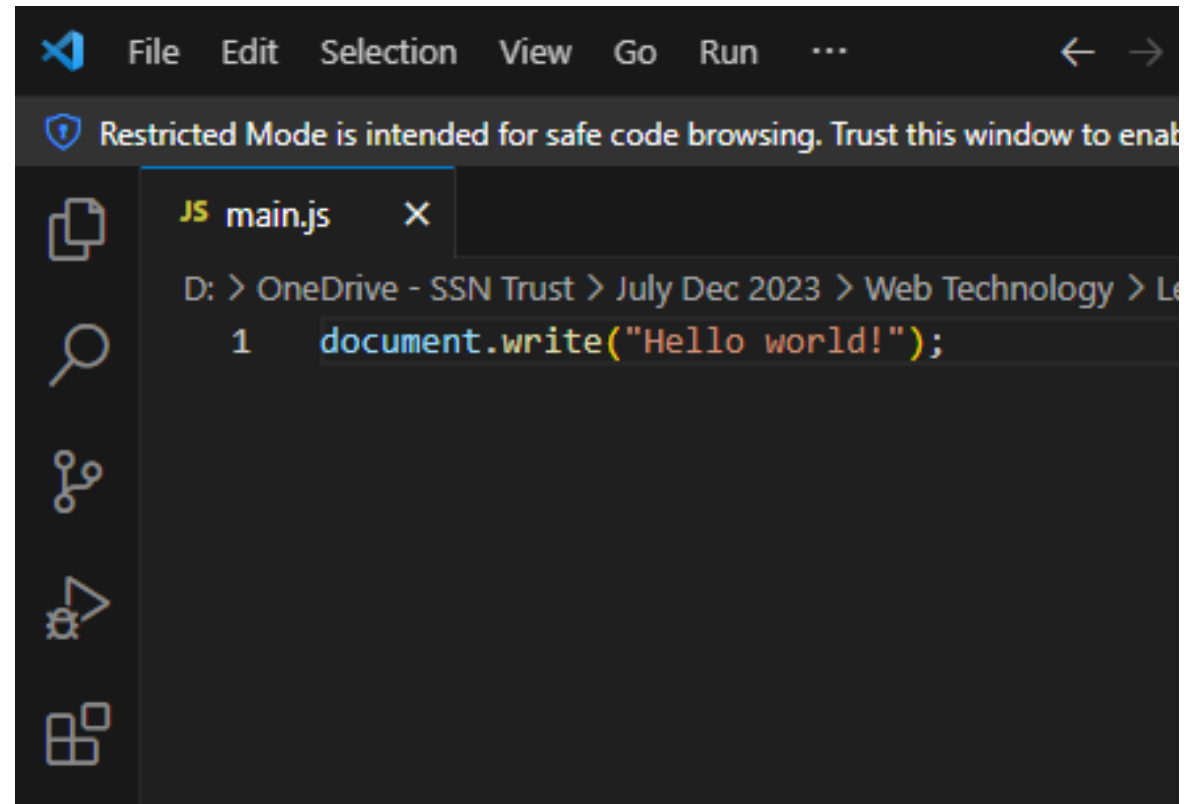# Introduction – Example 4

- **The Hello World Program - External Programming (save as .js)**

- **Pop an alert box. (Syntax: `document.write("");`)**

K2

Introduction – Example 4

- **The Hello World Program - External Programming**

- **Script content - empty**

```html
<!DOCType html>
<html>
    <head>
        <title> External Javascript
</title>
    </head>
    <body>
        <script src="main.js">
        </script>
    </body>
</html>
```

File   Edit   Selection   View   Go   Run   ···

Restricted Mode is intended for safe code browsing. Trust this window to enab

JS main.js   ✕

D: > OneDrive - SSN Trust > July Dec 2023 > Web Technology > L

```javascript
1    document.write("Hello world!");
```

K3

Keywords - 48

K2

Best Practices

1. Use HTML tags with the same case (preferably lowercase).

2. Filename to be based on functionality.

3. When opening a tag, have a "tab space" for each line until you close the tag. It helps in the readability of your HTML document.

4. Give a comment describing a web page as the first line of your HTML document.

5. Keep HTML, CSS, and Javascript files separate

Summary

- **Javascript Statistics**
- **Java vs Javascript**
- **Language**
- **Introduction**
- **Types of Programming**
- **Inline – Hello World - Inline**
- **External – Hello World – Inline**
- **External – Hello World - Alert**
- **Keywords**
- **Best Practices**

K1

References

1. Paul J Deitel, Harvey M Deitel, and Abbey Deitel, "Internet and the world wide web: How to program," Pearson, Fifth Edition, 2012.

THANK YOU