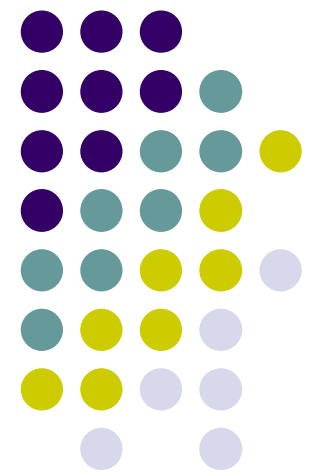
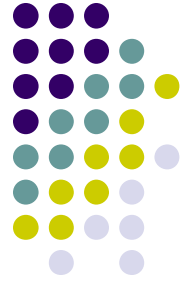


# Introduction to JavaScript

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# Topics

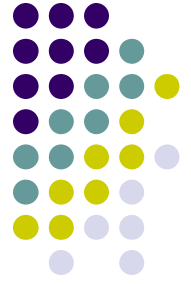
- What is JavaScript?
- Why JavaScript?
- Including JavaScript in HTML
- Hello World Example Script
- JavaScript Comments



# What is JavaScript?

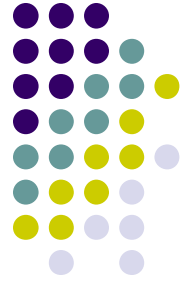
- Created by Netscape
  - Originally called LiveWire then LiveScript
- A client-side scripting language
  - Client-side refers to the fact that it is executed in the client (software) that the viewer is using. In the case of JavaScript, the client is the browser.
  - A server-side language is one that runs on the Web server. Examples: PHP, Python, Perl
- Interpreted on-the-fly by the client
  - Each line is processed as it loads in the browser

# JavaScript is not Java



- Completely different types of languages that just happen to be similarly named
  - JavaScript - programs are interpreted in the browser
  - Java - programs are compiled and can be run as stand alone applications

# Why JavaScript?



- It's easier to learn than most programming languages
- It allows you to make interactive Web pages
- It can be fun!

# Including JavaScript in HTML



- Two ways to add JavaScript to Web pages
  - Use the `<script>...</script>` tag
  - Include the script in an external file -- more about this later in the semester
- Initially, we will only use the `<script>...</script>` tag

# Hello, World!



- Typically, in any programming language, the first example you learn displays “Hello, World!”
- We are going to take a look at a Hello World example and then examine all of its parts.

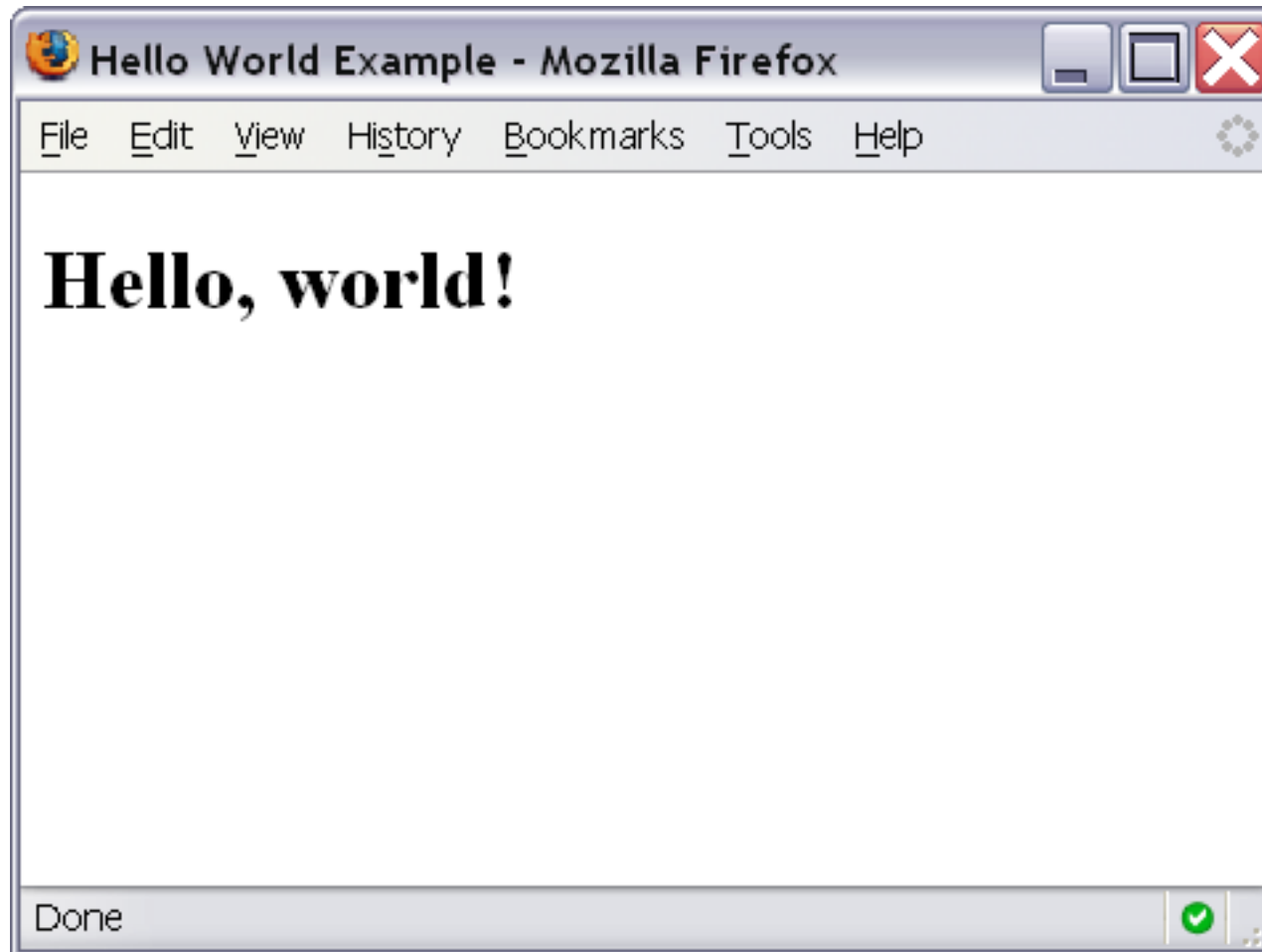
# Hello World in JavaScript



```
<!DOCTYPE html>
<html>
  <head>
    <title>Hello World Example</title>
  </head>
  <body>
    <script type="text/javascript">
      <!--
        document.write("<h1>Hello, world!</h1>");
      //-->
    </script>
  </body>
</html>
```



# Hello World Screenshot





# The `<script>...</script>` tag

- The code for the script is contained in the `<script>...</script>` tag

```
<script type="text/javascript">
```

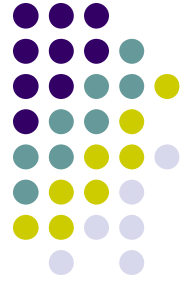
```
•
```

```
•
```

```
•
```

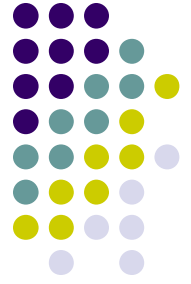
```
</script>
```

# Hiding JavaScript from Older Browsers



- Some older browsers do not support JavaScript
- We need to tell those browsers to ignore what is in the `<script>` tag

```
<script type="text/javascript">  
  <!--  
    some JavaScript code  
  //-->  
</script>
```



# Displaying text

- The `document.write()` method writes a string of text to the browser

```
<script type="text/javascript">  
  <!--  
    document.write("<h1>Hello, world!</h1>");  
  //-->  
</script>
```

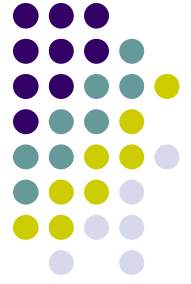
# document.write()



Ends in a semicolon

```
document.write("<h1>Hello, world!</h1>");
```

Enclosed in quotes -- denotes a "string"



# Comments in JavaScript

- Two types of comments
  - Single line
    - Uses two forward slashes (i.e. `//`)
  - Multiple line
    - Uses `/*` and `*/`

# Single Line Comment Example



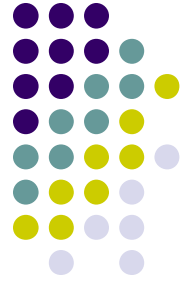
```
<script type="text/javascript">  
  <!--  
    // This is my JavaScript comment  
    document.write("<h1>Hello!</h1>");  
  //-->  
</script>
```

# Multiple Line Comment Example



```
<script type="text/javascript">
  <!--
    /* This is a multiple line comment.
     * The star at the beginning of this line is optional.
     * So is the star at the beginning of this line.
     */
    document.write("<h1>Hello!</h1>");
  //-->
</script>
```





# Find the Bug!

```
<script type="text/javascript">  
  <!--  
    /* This is my JavaScript comment  
     * that spans more than 1 line.  
     *  
     document.write("<h1>Hello!</h1>");  
  //-->  
</script>
```

