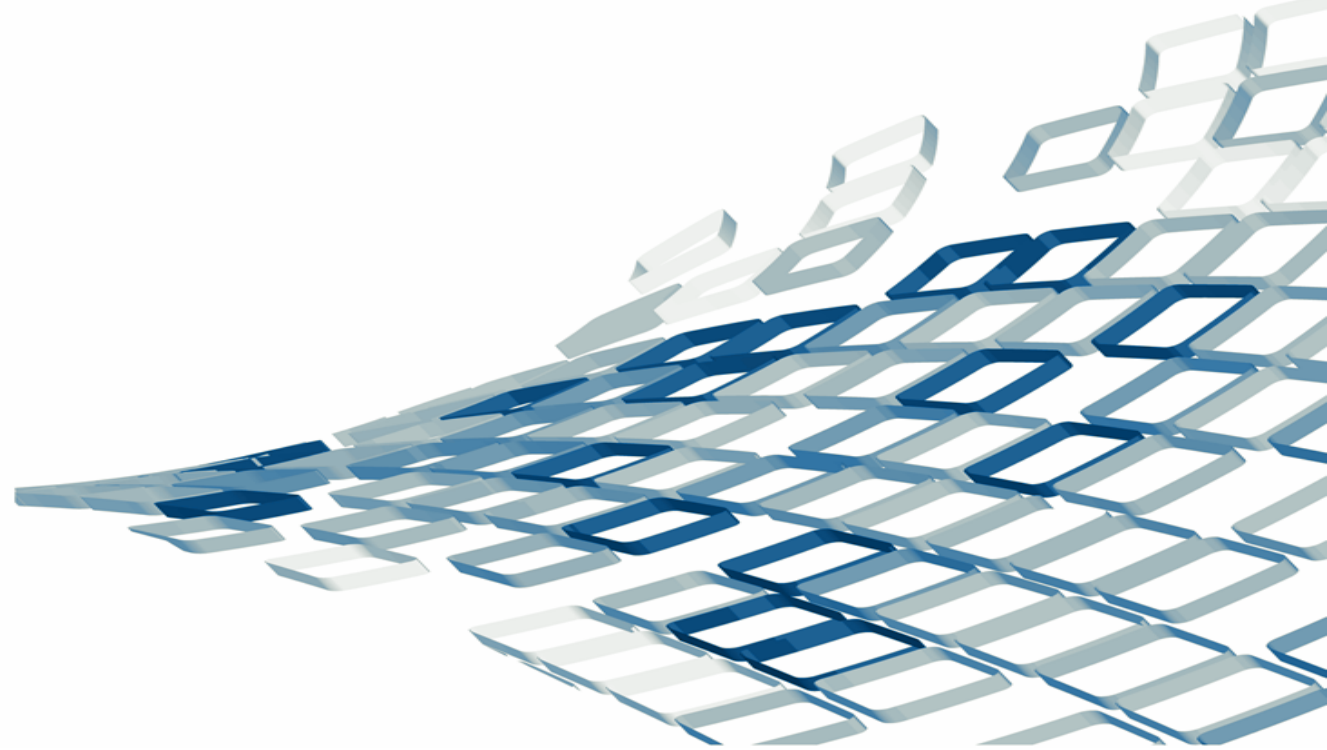Lesson 6:
JavaScript Language Objects

Objectives

- Use the *String* object to test user input
- Evaluate strings, including use of the *length* property, and use of the *indexOf(), lastIndexOf(), substring()* and *charAt()* methods
- Identify basic regular expressions and the *RegExp* object
- Use the *Array* object to create more efficient code
- Identify uses for the *Date* and *Math* objects

Introduction to JavaScript Language Objects

- Language objects
  - The *String* object
  - The *Math* object
  - The *Array* object
  - The *RegExp* object

The *String* Object

- The *String* object
  - Text, numbers, or any combination of characters that functions as text
- *String* object formatting methods
- *String* object special characters
- The *prototype* property of the *String* object
- Common syntax errors with the *String* object
- Additional *String* object methods

Evaluating Strings

- The *length* property of the *String* object
- The *indexOf()* method of the *String* object
- The *lastIndexOf()* method of the *String* object
- The *substring()* method of the *String* object
  - The *substr()* method
- The *charAt()* method of the *String* object
- Form validation using string methods

JavaScript Regular Expressions

- Regular expression
  - Searches for specified patterns in text
- The *RegExp* object
  - Used to create regular expressions
- Creating regular expressions
- More methods of the *String* object
- Patterns with alphanumeric characters

The *Array* Object

- The *Array* object
  - Used when a single variable needs to be able to reference multiple values
- The *join()* method of the *Array* object
- The *reverse()* method of the *Array* object
- The *sort()* method of the *Array* object
- The *Array* object length property

The *Date* Object

- The *Date* object
  - Used for date and time information
- Methods of the *Date* object

Setting and Extracting Time Information

- Setting and extracting time information follows the same procedures as setting and extracting date information
- Uses the *Date* object

The *Math* Object

- The *Math* object
  - Used to create advanced mathematical calculations
- Methods and properties of the *Math* object
- Using the *Math* object

Summary

- ✓ Use the *String* object to test user input
- ✓ Evaluate strings, including use of the *length* property, and use of the *indexOf(), lastIndexOf(), substring()* and *charAt()* methods
- ✓ Identify basic regular expressions and the *RegExp* object
- ✓ Use the *Array* object to create more efficient code
- ✓ Identify uses for the *Date* and *Math* objects

Lesson 6 Quiz

1. Which JavaScript language object allows you search for specified patterns in text?

a. The Math object

b. The Array object

c. The RegExp object

d. The String object

Lesson 6 Quiz

1. Which JavaScript language object allows you search for specified patterns in text?

a. The Math object

b. The Array object

c. *The* RegExp *object*

d. The String object

Lesson 6 Quiz

2. Which JavaScript language object can be used to generate random quotations from a predefined array of quotes?

a. The Array object

b. The String object

c. The Math object

d. The RegExp object

Lesson 6 Quiz

2. Which JavaScript language object can be used to generate random quotations from a predefined array of quotes?

a. The Array object

b. The String object

c. *The* **Math** *object*

d. The RegExp object

Lesson 6 Quiz

3. Which String object method can be used to test user input?

a. The toLowCase() method

b. The test() method

c. The indexOf() method

d. The link() method

Lesson 6 Quiz

3. Which String object method can be used to test user input?

a. The toLowCase() method

b. The test() method

c. The indexOf() method

d. The link() method

Lesson 6 Quiz

4. Which Array object method can be used to create a string of an array's values?

a. The lastIndexOf() method

b. The reverse() method

c. The sort() method

d. The join() method

Lesson 6 Quiz

4. Which Array object method can be used to create a string of an array's values?

a. The lastIndexOf() method

b. The reverse() method

c. The sort() method

d. The join() method

Lesson 6 Quiz

5. Which Date object method can be used to return the day of the week as anumeric value (0 through 6, where 0 is Sunday)?

a. The setDate() method

b. The getDay() method

c. The getDate() method

d. The setDay() method

Lesson 6 Quiz

5. Which Date object method can be used to return the day of the week as anumeric value (0 through 6, where 0 is Sunday)?

a. The setDate() method

b. The getDay() method

c. The getDate() method

d. The setDay() method

Lesson 6 Quiz

6. Consider the following JavaScript statements:

```
var myStr = "Caught In The Wind";
document.write(myStr.charAt(0));
document.write(myStr.charAt(7));
document.write(myStr.charAt(14));
```

What is the output of these statements?

Lesson 6 Quiz

6. Consider the following JavaScript statements:

```
var myStr = "Caught In The Wind";
document.write(myStr.charAt(0));
document.write(myStr.charAt(7));
document.write(myStr.charAt(14));
```

What is the output of these statements?

CIW

Lesson 6 Quiz

7. Consider the following JavaScript statements:

```
var myArray = new Array("red", "white", "blue");
document.write(myArray);
```

What is the output of these statements?

Lesson 6 Quiz

7. Consider the following JavaScript statements:

```
var myArray = new Array("red", "white", "blue");
document.write(myArray);
```

What is the output of these statements?

red,white,blue

Lesson 6 Quiz

8. Write a JavaScript function that tests two numbers for the higher and outputs that number to the user.

Lesson 6 Quiz

8. Write a JavaScript function that tests two numbers for the higher and outputs that number to the user.

```
function numTest(x, y) {

        document.write(Math.max(x, y));

}
```