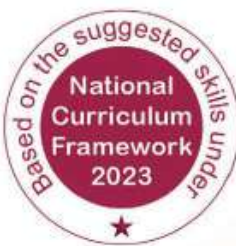


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- | | |
|-------------------------|----------------------------|
| Artificial Intelligence | Multidisciplinary Approach |
| Animated Life Skills | Subject Integration |
| Coding | Art Integration |
| Computational Thinking | Skill Formation |
| Experiential Learning | Linked with SDGs |



Answer Key

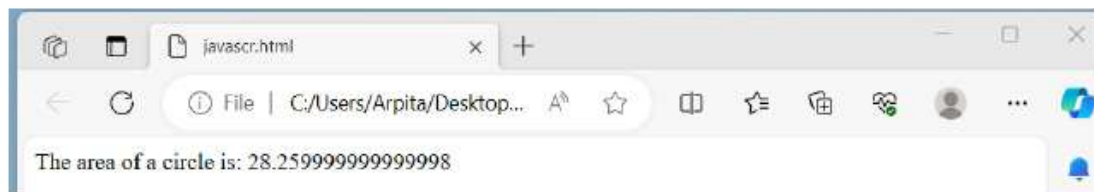
7

JavaScript-An Introduction

Page No. 102

TRIAL TRIVIA

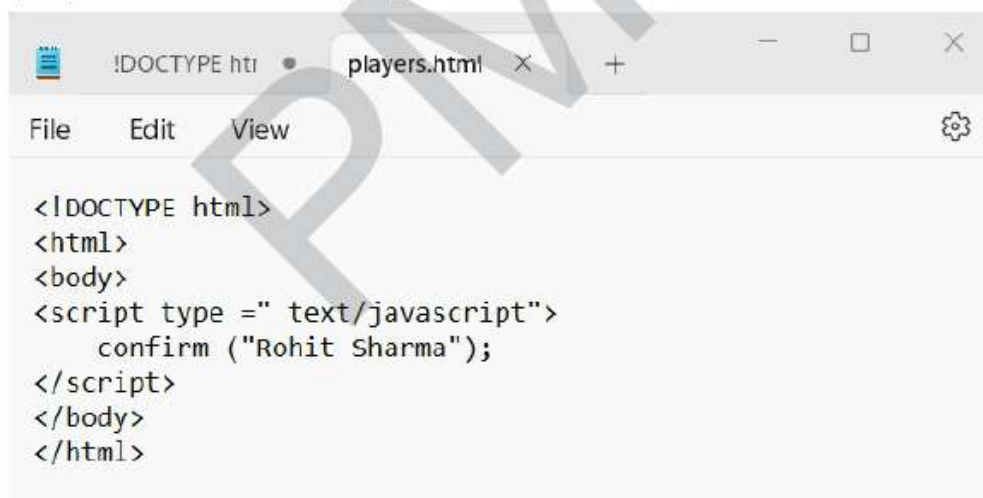
Save the following code as HTML file and view it in web browser. Write the output in the given space.



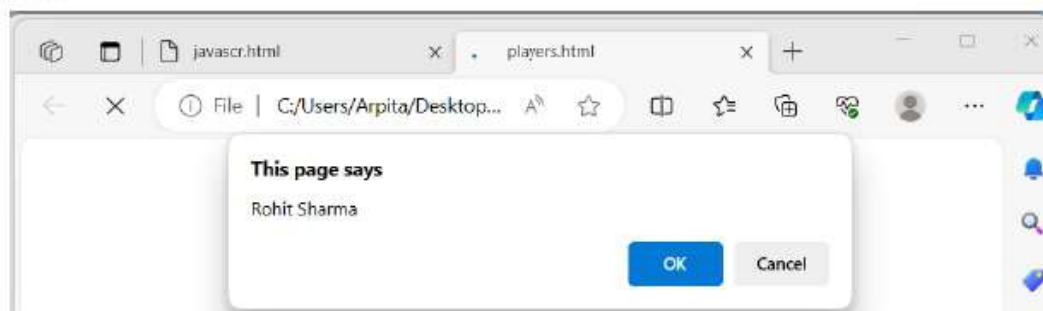
Page No. 104

TRIAL TRIVIA

Write a javascript program to accept the name of an Indian cricketer and display it on the web page.



Output:



SELF-EVALUATION

A. Tick (✓) the correct answer.

1. (b) interactive 2. (a) .js 3. (b) case sensitive
4. (b) operands 5. (c) three

B. Write 'T' for True and 'F' for False statements.

1. True 2. True 3. True 4. True
5. True

C. Fill in the blanks.

1. JavaScript code 2. True or False 3. <body> 4. Confirm
5. Ok or Cancel

D. Define the following.

1. Text editor: A text editor is a program that allows a user to enter, change, save and print text.
2. Operator: Operators are the special symbols that carry out arithmetic and logical computations. The values operated by the operator are called operands.

E. Differentiate between the following.

1.	Confirm box	Prompt box
	A confirm box is used if we want the user to accept something.	A prompt box is used if we want the user to input a value before entering a page.

2.	String data type	Boolean datatype
	It hold characters or a combination of letters, numbers, or symbols.	It contain logical data that can be one of two values True or False.

F. Answer in 1-2 sentences.

1. The significance of JavaScript blocks is to make the sequence of statements execute together.

2. The three names of keywords that are used to declare a variable in JavaScript are var, let, and const.
3. Comments can be added in the JavaScript to make it more readable. Any code written under connect is not executed.

G. Answer briefly.

1. The advantages of JavaScript are
 - (a) It is very fast because it can be run immediately within the browser.
 - (b) It can work on client-side as well as server side.
 - (c) It adds interactivity to the web pages.
2. The rules of naming a variable in JavaScript are
 - (a) Variable names are case sensitive.
 - (b) Variable names must begin with a letter, underscore or dollar character.
 - (c) Name should not use spaces, hyphens or punctuation.
3. Function contains code that will be executed by an event or by a call to that function. We may call a function from anywhere within the page .

The types of function are max(), user-defined functions, etc.

H. Application-based Question.

You should use prompt() box to create a web page.

Chapter – 7 [JavaScript – An Introduction]

Worksheet – 1

Q1. Put your knowledge to the test by choosing the right option:

1. JavaScript is primarily used to add _____ to web pages.
a. Styles ☐ b. Interactivity ☐ c. Images ☐ d. Layout ☐
2. What is the file extension for a JavaScript file?
a. .js ☐ b. .java ☐ c. .script ☐ d. .javascript ☐
3. JavaScript variable names are _____.
a. Case insensitive ☐ b. Unique ☐
c. Case sensitive ☐ d. Numerical ☐
4. What is the purpose of the <script> and </script> tags in HTML5 when adding JavaScript?
a. Define a new section ☐ b. Mark a comment ☐
c. Specify the document type ☐ d. Enclose JavaScript code ☐
5. How many types of popup boxes can be created in JavaScript?
a. Two ☐ b. Four ☐ c. Three ☐ d. Five ☐
6. JavaScript is known for being a _____ language.
a. Compiled ☐ b. Event-driven ☐ c. Object-oriented ☐ d. Procedural ☐

Q2. Write 'T' for true and 'F' for false statements:

1. Numeric data type in JavaScript holds characters. ☐
2. JavaScript variables are case-insensitive. ☐
3. Assigning a value to a variable is known as variable initialization. ☐
4. Comments in JavaScript are executed by the browser. ☐
5. Operators in JavaScript are symbols that carry out only arithmetic computations. ☐
6. Functions in JavaScript can only be defined in the <body> section of a document. ☐

Q3. Fill in the blanks:

1. _____ is a sequence of JavaScript statements.
2. Boolean data types contain logical data that can only be _____ or _____.
3. Functions can be defined both in the <head> and in the _____ section.
4. In JavaScript, _____ box is often used if you want the user to accept something.
5. When a prompt box pops up, the user will have to click on either _____ or _____ to proceed.
6. JavaScript uses _____ to store values temporarily in internal memory.

Chapter – 7 [JavaScript– An Introduction]

Worksheet – 2

Q1. Answer the following questions:

1. What is JavaScript, and what is its purpose in web development?
.....
2. Explain the role of the <script> tag in embedding JavaScript code within HTML documents.
.....
3. What is the significance of the document.write command in JavaScript, and how is it used?
.....
4. What are variables in JavaScript, and what are the rules for naming variables?
.....
5. What are the different data types in JavaScript, and provide some examples?
.....

Q2. Differentiate between the following:

1. Variables

.....
.....
.....

Constants

.....
.....
.....

2. User-defined functions

.....
.....
.....

Built-in functions

.....
.....
.....

Q3. Application-based Questions

1. A user wants to enhance their web page by displaying a message when a button is clicked. Create a step-by-step guide on how to achieve this using JavaScript, including the necessary code and explanations.
.....

Worksheet – 01

Q1. Put your knowledge to the test by choosing the right option:

1. b 2. a 3. c 4. d 5. c 6. b

Q2. Write 'T' for True and 'F' for false statements.

1. F 2. F 3. T 4. F 5. F 6. F

Q3. Fill in the blanks:

1. Script 2. True or False 3. <head> and body 4. Confirm 5. Ok or Cancel
6. variables

Worksheet – 02

Q1. Answer the Following Questions:

1. **JavaScript** is an event-driven, scripting language that provides various types of functionality to web pages, such as the ability to interact with the user. An **event-driven** programming language is one that responds to events, such as when a user clicks or presses any key on the keyboard.
2. The **<SCRIPT>** and **</SCRIPT>** tags to add JavaScript to your HTML5 document. The browser reads anything between the two tags as a script. A **script** is a **short program** that you can write to add interactivity to web pages.
3. The document.write command in JavaScript is used to write directly to the HTML document. This command is significant because it allows developers to dynamically generate HTML content during the loading of a web page.

- JavaScript uses **variables** to store values temporarily in internal memory. A variable's value can change, depending on the results of an expression or data entered by a user from a form. Variables must have a **unique name**. JavaScript variable names are **case sensitive**.
- There are many data types in JavaScript. Some data type are discussed below.

Numeric: It hold numbers like 50, 100, etc.

String: It hold characters or a combination of letters, numbers or symbols like "Akash", "Haqe@123", etc.

Boolean: It contains logical data that can be one of two values True or False.

Q2. Differentiate between the following.

- Variables and Constants

Variables	Constants
Containers for storing data values that can be changed during program execution.	Containers for storing data values that cannot be changed once assigned.
Typically declared using var, let, or const in JavaScript.	Declared using const in JavaScript.

- User-defined functions and Built-in functions

User-defined functions	Built-in functions
JavaScript also allows us to create user-defined functions . Let us learn how to create and call a user-defined function.	JavaScript like alert() and prompt() ; these are built-in functions . We are now going to explore some more built-in functions.

Q3. Application-based Questions.

- Create HTML Structure

```
<!DOCTYPE html>
```

```
<html lang="en">
```



```
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Button Click Message</title>
</head>
<body>
  <h1>Click the Button to See the Message</h1>
  <button id="myButton">Click Me</button>
  <p id="message"></p>
  <script src="script.js"></script>
</body>
</html>
```

Adding JavaScript to the Web page

```
// Function to display the message

function displayMessage() {
  // Get the paragraph element by its ID
  var messageElement = document.getElementById('message');
  // Set the text content of the paragraph element
  messageElement.textContent = 'Hello, you clicked the button!';
}

// Add an event listener to the button
document.getElementById('myButton').addEventListener('click',
displayMessage);
```