# Chapter 4

# Adding Interactivity to Web Pages

## Activity 4.1: Understanding Scripting

### Problem Statement

Steve has been asked to implement functionality in the Upcoming Movies Web page in such a way that when the user opens this page, an alert message appears that specifies the bookings are currently not available. In addition, the same alert should appear when the user clicks any of the BookYourShow links.

**Prerequisite**: You need to use the solution of **ShowOnWheels** that you have created in Activity 3.2 to perform this activity. Ask your faculty to provide you the same.

### Solution

To display an alert on a Web page, Steve needs to perform the following tasks:

1. Update the upcomingmovies.html file.
2. View the home page.

#### Task 1: Updating the upcomingmovies.html File

To update the **upcomingmovies.html** file, Steve needs to perform the following steps:

1. Open the **upcomingmovies.html** file.
2. Add the following code snippet after the <LINK type="text/css" rel="stylesheet" href="ExternalStylesheet\homestylesheet.css" /> line of code:

<SCRIPT type="text/javascript">

function onlinebooking(){

alert("The Bookings for the Upcoming Movies are not Currently Available");

}

</SCRIPT>

The preceding code snippet creates a function that will display an alert message to a user.

1. Add the following code snippet after the href="" code in all the <A> tags:

onclick="onlinebooking();"

The *onclick* event occurs when a user clicks on an element. This event specifies the function that needs to be called when the element is clicked. You will learn more about events in the next chapter.

1. Save and close the **upcomingmovies.html** file.

#### Task 2: Viewing the Home Page

To view the home page, Steve needs to perform the following steps:

1. Open Google Chrome.
2. Type **D:\HTML\ShowOnWheels\mainframe.html** in the address bar.
3. Press the **Enter** key. The home page appears.
4. Click the **Upcoming Movies** link. The table displaying upcoming movies’ details appears in the **UPCOMING MOVIES** Web page, as shown in the following figure.

*The UPCOMING MOVIES Web Page*

1. Click the **BookYourShow** link. The **JavaScript Alert** dialog box appears, as shown in the following figure.

*The JavaScript Alert Dialog Box*

Similarly, clicking any of the **BookYourShow** link displays an alert specifying that the bookings for the upcoming movies are currently not available.

1. Click the **OK** button.
2. Close the Web browser.

## Activity 4.2: Implementing Functions

### Problem Statement

MathTutor.com is a leading online tutorial website for Mathematics. It provides tutorial content for different age groups. The Web designer of the website is given a task to develop a Web page for the students in the age group of 5-10 years. The Web page should ask the students to provide a number up to which they want to view prime numbers. It should enable the students to view prime numbers up to 100. Help the Web designer to achieve the task.

### Solution

To create a Web page to view prime numbers, you need to perform the following tasks:

1. Create the prime.html file.
2. View the prime.html file.

#### Task 1: Creating the prime.html File

To create the **prime.html** file, you need to perform the following steps:

1. Open Notepad.
2. Add the following code snippet in Notepad:

<HTML>

<BODY>

<SCRIPT type="text/javascript">

var prime="";

var number=prompt("Please enter number up to 100 to view prime numbers","");

if(number>100)

{

alert("You can’t enter number above 100");

}

The preceding code snippet displays a prompt that enables a user to enter a number upto 100 and displays a message if the number entered is more than 100.

1. Add the following code snippet after the alert("You can’t enter number above 100");} line of code:

else

{

for(i=2;i<=number;i++)

{

flag=0;

for(j=2;j<=i/2;j++)

{

if(i%j==0)

{

flag=1;

break;

}

}

if(flag==0)

prime=prime+ " \n "+i;

}

alert("Prime numbers up to "+number+" are:\n"+ prime);

}

</SCRIPT>

</BODY>

</HTML>

The preceding code snippet will execute if the number entered by the user is less than 100. Further, it will display the list of prime numbers upto the number provided by the user.

1. Save the file with the name, **prime.html**, at the **D:\HTML** location.

#### Task 2: Viewing the prime.html File

To view the **prime.html** file, you need to perform the following steps:

1. Open Google Chrome.
2. Type **D:\HTML\prime.html** in the address bar.
3. Press the **Enter** key. The **JavaScript** dialog box appears on the Web page, as shown in the following figure.

*The JavaScript Dialog Box*

1. Type **58** in the **Please enter number up to 100 to view prime numbers** text box.
2. Click the **OK** button. The **JavaScript Alert** dialog box appears displaying prime numbers up to 58, as shown in the following figure.

*The JavaScript Alert Dialog Box*

1. Click the **OK** button in the **JavaScript Alert** dialog box.
2. Close the Web browser.

# Exercises

### Exercise 1

The management of SkyLight University has decided to launch some vocational courses, such as Stenography, Art and Craft, and Tour and Travel. These courses will be displayed in a table in the Courses page. There is one column in the table that contains the Register link along with each course. When a student clicks any of these links, an alert message should appear specifying that the online registrations are not available, as shown in the following figure.

*An Alert Message*

How will you perform this task?

**Prerequisite**: To perform this exercise, you need to use the solution file created for Exercise 2 of Chapter 3.

### Exercise 2

Bob is a Web designer and is given a task to create a website for kids that encourages them to play a puzzle game. The website should accept the number of players from the user and then prompt the user to enter the names of the players. If the user enters a negative number, the user should be alerted and prompted to re-enter the number of players. Once the user has successfully entered the total number of players and their names, the user must be congratulated before the start of the game.

### Exercise 3

### Exercise 4