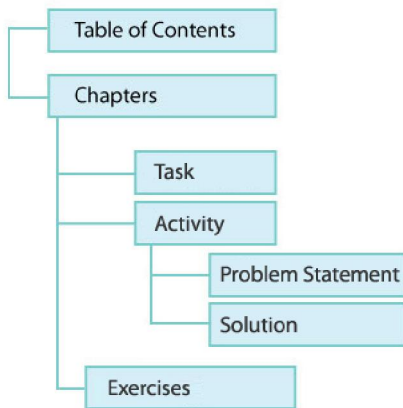




Course Design - Activity Book



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HTML5 Programming_AB /13-M03-V01

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Chapter 1

Getting Started with HTML



Activity 1.1: Creating a Web Page

Problem Statement

You are a Web developer at BuildYourWeb Inc. You have been assigned the task of creating the home page for ShowOnWheels. The home page should be based on the following guidelines:

- Q It should display the organization logo.
- Q It should display some text describing about the company in paragraphs.
- Q It should also display names of various US cities, where ShowOnWheels is currently operating, in a list. This list should unfold when a user clicks the Currently Operating in text.
- Q It should provide links to other pages, such as About Us, Contact Us, and Upcoming Movies.
- Q It should display the images of latest movies.
- Q It should display a video clip showing the latest offers.
- Q It should link a style sheet.
- Q It should display the contact number so that users can call to enquire about any upcoming movie.

Prerequisite: You need the **ExternalStylesheet**, **images**, and **video** folders, which contain the style sheet, images, and video clip required for performing this activity. In addition, you need the **aboutus.html**, **contactus.html**, and **upcomingmovies.html** files. Ask your faculty to provide the same and save these files and folders at the following location:

D:\HTML\ShowOnWheels

Solution

To create the required Web page, you need to perform the following tasks:

1. Create the home page.
2. Add heading and logo to the home page.
3. Create the links.
4. Add images and a video clip.
5. Add paragraphs and a list of cities.
6. View the home page.

Task 1: Creating the Home Page

To create the home page, you need to perform the following steps:

1. Open **Notepad** and type the following code in it:
<HTML>
<HEAD>

```
<TITLE>Home Page of  
ShowOnWheels</TITLE>  
<LINK type="text/css"  
rel="stylesheet"  
href="ExternalStylesheet  
\homestylesheet.css" />  
</HEAD>  
<BODY>  
</BODY>  
</HTML>
```

2. Save the file with the name **home.html** at the same location where you have saved other input files.



*You need to create the **ShowOnWheels** folder at the location, **D:\HTML** before performing this activity.*

Task 2: Adding Heading and Logo to the Home Page

To add heading and logo to the home page, you need to add the following code snippet in the **home.html** file after the <BODY> tag:

```
<DIV id="mainDivContainer"  
style="position: relative; width:  
100%;  
margin-top: 0px; margin-bottom: 0px;">  
<DIV style="width: 960px; margin-top:  
5px; margin-left: auto; margin-  
right:auto">  
    <DIV style="width: 960px;  
height:80px;">  
        <IMG id="logo" src="images  
\Logo.png" width="500" height="100">  
        <H5>For Enquiry<BR>  
        Call Us 9225648543  
    </H5>  
    <IMG id="callus" src="images  
\callus.png">  
</DIV>  
<DIV style="width:500px; height:20px;  
float:left; text-align:center;">  
    <SPAN class="auto-  
style1"><B>The Ultimate Way For  
Booking Movie Tickets</B></SPAN>  
</DIV>
```

The preceding code snippet divides the home page into sections using the <DIV> tag and adds heading of level H5 on the home page. In addition, it adds the images, Logo.png and callus.png, on the home page using the tag.

Task 3: Creating the Links

To create the links on the home page, you need to add the following code snippet before the </DIV> tag:

```
<DIV id="topnav" style="float:left;  
width: 960px; height: 20px; word-  
spacing: 5px; font-size: 90%; padding-  
left:60px; padding-top: 6px; white-  
space: nowrap; text-align:left;  
background-color: black;">
```

```

    <NAV>
    <A href="home.html">Home</A>
|
    <A href="aboutus.html">About
Us</A> |
    <A
href="contactus.html">Contact Us</A>
|
    <A
href="upcomingmovies.html">Upcoming
Movies</A> |
    </NAV>
</DIV>

```

The preceding code snippet creates a navigation bar of links, About Us, Contact Us, and Upcoming Movies, using the <NAV> and <A> tags.

Task 4: Adding Images and a Video Clip

To add images and a video clip, you need to add the following code snippet after the </NAV> and</DIV> tags:

```

<DIV style="width: 960px; height:
auto; position: relative; margin:0px;
padding: 29px; overflow: hidden;
background-color: white;">
    <H4>Currently, showing...</H4>
    <IMG src="images
\movieimage1_bee.png" width="185"
height="200">
    <IMG src="images
\movieimage2_alvin.jpg" width="185"
height="200">
    <IMG src="images
\movieimage3_amy.jpg" width="185"
height="200">
    <IMG src="images
\movieimage4_bolt.jpg" width="185"
height="200">
    <IMG src="images
\movieimage5_wolf.jpg" width="185"
height="200">
<H3>Latest Hot Offers!!</H3>
<VIDEO width="380" height="268"
controls autoplay="autoplay" loop>
<SOURCE src="video\latestOffers.webm"
type="video/mp4" />
    Your browser does not support
this audio format.
</VIDEO>
</DIV>
</DIV>
</DIV>

```

The preceding code snippet adds images to the home page using the tag. In addition, it adds a video using the <VIDEO> tag.

Task 5: Adding Paragraphs and a List of Cities

To add paragraphs and a list of cities, you need to perform the following steps:

1. Add the following code snippet after the <IMG

```

src="images
\movieimage5_wolf.jpg"
width="185" height="200"> line of
code:

```

```

<ARTICLE>
    <P>
        ShowOnWheels is an
        emerging entertainment company
        in the field of booking online
        movie tickets in US.
    We pioneered cinema halls in US
    by establishing the first
    multiplex cinema in 2001 and the
    largest 9-screen multiplex
    cinema in 2007.
    With its head office in Los
    Angeles, ShowOnWheels is now
    serving the viewers of major US
    cities.

```

```

    </P>
    <P>
        Waiting in queues to book
        tickets for your favorite movie
        is now a matter of past.
    ShowOnWheels empowers you by
    offering a platform to book
    movie tickets anywhere, anytime.
    Whether shopping in a mall,
    enjoying a vacation at a Miami
    Beach, partying in a
    discotheque, attending a
    conference, or taking your pet
    for a walk, ShowOnWheels is
    there to reserve your hot seat
    in your favorite cinema.

```

```

    </P>
    </ARTICLE><BR><BR><BR><BR>
<DETAILS>

```

```

    <SUMMARY><B>Currently,
operating in:</B></SUMMARY>

```

```

    <UL>
    <LI>
        Los Angeles
    <LI>
        Chicago
    <LI>Houston </LI>
    </UL>

```

```

    With an annual turnover of
    US $12 million, ShowOnWheels is
    expanding its wings. We are
    launching three new screens in
    South Africa, shortly.

```

```

    </DETAILS>

```

```

    <H1>

```

```

    <BR>

```

```

    Hurry Up! Heavy Discounts
    on weekends....</H1>

```

```

    <ASIDE>

```

```

    <P>

```

<I>ShowOnWheels
values its customers. We keep
you updated with our new
discounts and offers.

We appreciate your
association!</I>

</P>

</ASIDE>

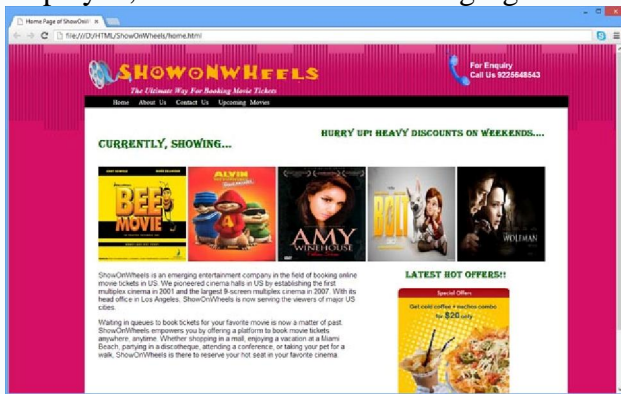
The preceding code snippet adds paragraphs
using the <P>, <ARTICLE>, and <ASIDE>
tags. In addition, it adds a list of cities using the
<DETAILS> tag.

2. Save the **home.html** file.

Task 6: Viewing the Home Page

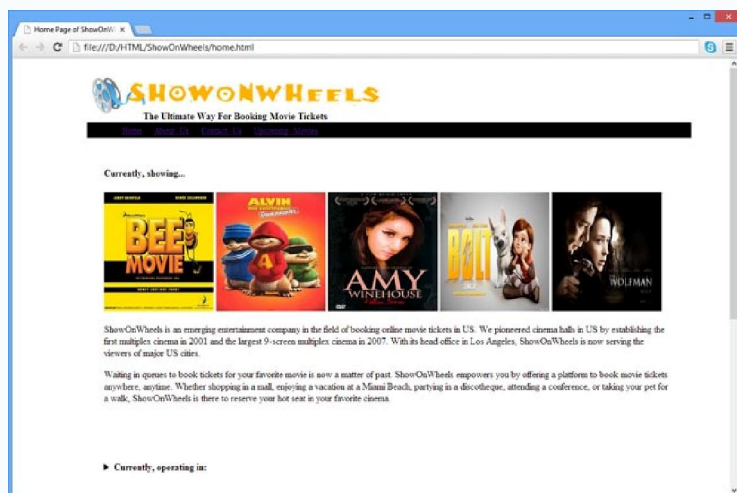
To view the home page, you need to perform the
following steps:

1. Open Google Chrome.
2. Type **D:\HTML\ShowOnWheels\home.html**
in the address bar.
3. Press the **Enter** key. The home page will be
displayed, as shown in the following figure.



The Home Page of ShowOnWheels

Now, if you remove the `<LINK type="text/css" rel="stylesheet" href="ExternalStylesheet/homestylesheet.css"/>` line of code from the **home.html** file, the Web page appears, as shown in the following figure.



The Home Page Without the <LINK> Tag

The Web page shown in the preceding figure is not
appealing to the viewers. This is created without using
any style sheet. This shows how style sheet formats the

Web page and makes it attractive.

Exercises

Exercise 1

You are working as a Web page designer with
WebDesigners Ltd. You have been assigned the task to
create the home page for the SkyLight University
website. The home page should be based on the
following guidelines:

- Q It should display the logo of the university.
- Q It should display some text that provides
information about the SkyLight University.
- Q It should provide link to other pages, such as
About Us, Contact Us, and Careers.
- Q It should display the images of the colleges
affiliated to the SkyLight University.
- Q It should display a list of colleges affiliated to
the university. The list should expand when the
user clicks the Colleges affiliated text.

The home page should appear, as shown in the following
figure.



The Home Page of the SkyLight University

How will you create the desired home page?

Prerequisite: To perform this exercise, you need to use
the **images** folder and **aboutus.html**, **carrers.html**, and
contactus.html files. Ask your faculty to provide you
the same.



Exercise 2

Foodhub is an emerging name in the food business. As
part of customer satisfaction initiative, the management
wants to provide various services to its customers at
their doorstep. For this, it wants a website to be
constructed. The customers should be able to view the
menu and order food through the website. You have been
assigned the task to create the home page of the website
based on the following guidelines:

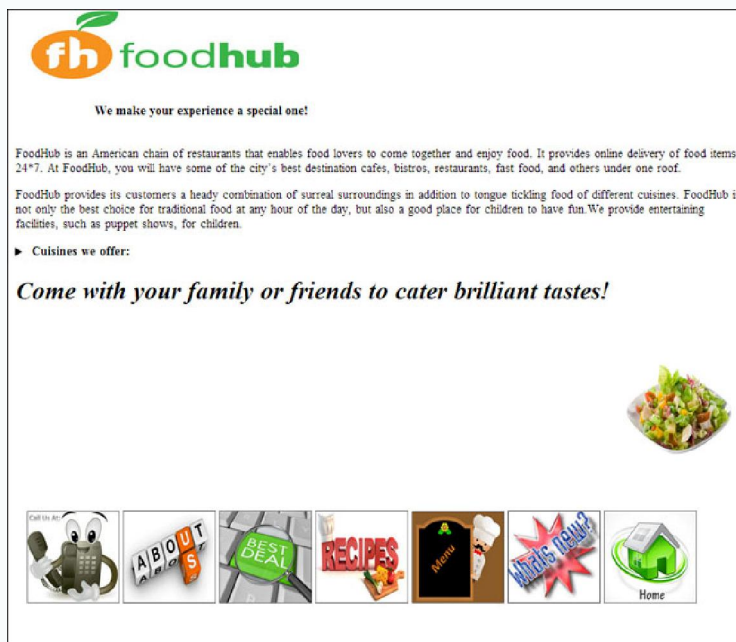
- Q It should display the logo of the organization.
- Q It should provide images of the following options:

- × Call Us At
- × About Us
- × Best Deal
- × Recipes
- × Menu
- × What's New
- × Home

The preceding images should be made as hyperlinks. When a user clicks these links, the corresponding pages should be opened.

- Q It should display information about Foodhub.
- Q It should display a list of cuisines offered by Foodhub to its customers.

The home page should appear, as shown in the following figure.



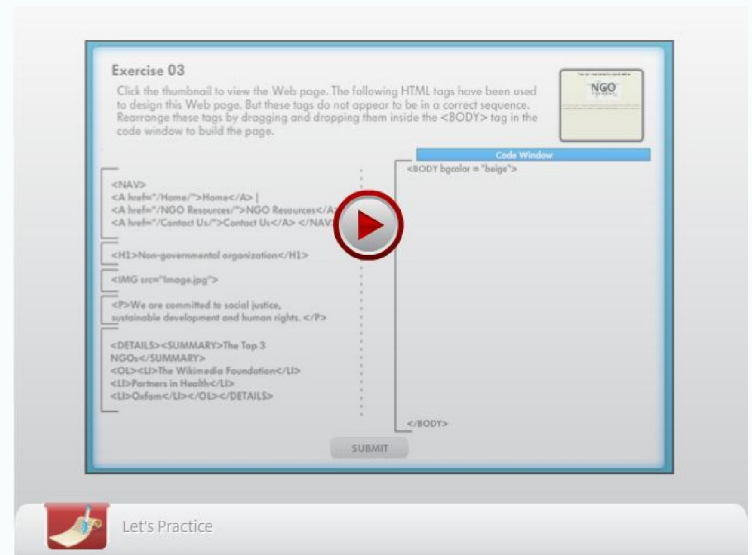
The Home Page of the Foodhub Website

How will you create the desired home page?

Prerequisite: To perform this exercise, you need to use the **images** folder and **aboutus.html**, **bestdeal.html**, **callus.html**, **menu.html**, and **whatsnew.html** files. Ask your faculty to provide you the same.



Exercise 3



Chapter 2

Enhancing Web Pages



Activity 2.1: Implementing Styles on HTML Elements

Problem Statement

Steve has developed the home page for ShowOnWheels. Now, he needs to enhance the look and feel of this home page. For this, he needs to apply the following styles:

- The Web page should contain the background image.
- The logo of ShowOnWheels should appear at top of the Web page.
- The links should appear horizontally.
- The links should be displayed in white color at the time of activation.
- The links should appear in pink color when the mouse is moved over them.
- The paragraph text should appear in different font styles.
- The list should appear with filled circles before the list items.

Help Steve to perform the preceding tasks.

Prerequisite: You need to use the **ShowOnWheels** file to perform this activity. In addition, you need the **background.gif** file. Ask your faculty to provide you the same.

Solution

To implement styles on a Web page, you need to perform the following tasks:

1. Create an external style sheet.
2. Link the style sheet in the home.html file.
3. View the home page.

Task 1: Creating an External Style Sheet

To create an external style sheet, you need to perform the following steps:

1. Open **Notepad** and type the following code snippet in it:

```
h3 {
  color: darkgreen;
  font-family: algerian;
  position: absolute;
  right: 130px;
  top: 320px;
}
aside p {
  text-align: center;
  background-color: darkgreen;
  color: white;
  font-size: 15px;
```

```
}
```

The preceding code snippet specifies the styles to be applied on the <H3> and <ASIDE> tags.

2. Add the following code snippet after the `font-size: 15px; }` line of code:

```
body {
  background-color: #D51165;
  background-image: url
('background.gif');
  background-repeat: repeat-x;
}
details {
  color: darkgreen;
  font-family: algerian;
  font-size: 15px;
}
h1 {
  font-family: algerian;
  color: darkgreen;
  font-size: 20px;
  position: absolute;
  top: 0px;
  right: 50px;
}
```

The preceding code snippet adds an image to the background. In addition, it applies styles on the <DETAILS> and <H1> tags.

3. Add the following code snippet after the `right: 50px; }` line of code:

```
article p{
  color: black;
  font-size: 15px;
  font-family: arial;
  width: 550px;
}
h5{
  font-family: arial;
  color: white;
  font-size: 16px;
  float:right;
}
h2 {
  color: darkgreen;
  font-family: algerian;
  position: relative;
  top: 0px;
  right: 0px;
  left: 500px;
}
```

The preceding code snippet defines the styles to be applied on the <ARTICLE>, <H5>, and <H2> tags.

4. Add the following code snippet after the `left: 500px; }` line of code:

```
details ul {
  color: #D51165;
  font-size: 15px;
}
h4 {
```



```

color: darkgreen;
font-family: algerian;
}
video {
position: absolute;
right: 50px;
top: 380px;
}

```

The preceding code snippet applies styles on the <DETAILS>, <H4>, and <VIDEO> tags by changing their font color, style, and size.

5. Add the following code snippet after the `top: 380px; }` line of code:

```

#mainDivContainer H4 {
color: darkgreen;
font-size: 24px;
}
.auto-style1 {
color: #FFFFFF;
font-style: italic;
}
#callus {
height: 80px;
width: 50px;
float: right;
}

```

The preceding code snippet creates the #mainDivContainer and #callus ID selectors, and the auto-style1 class to apply different styles on the content of the Web page.

6. Add the following code snippet after the `float: right; }` line of code:

```

NAV a: hover{
color: pink;
}
NAV A{
text-decoration: none;
color: white;
}

```

In the preceding code snippet, the `:hover` selector is used to apply the pink color to the links when the mouse is moved over them.

7. Save the file with the name, **homestylesheet.css** in the **ExternalStylesheet** folder at the location **D:/HTML/ShowOnWheels**.



*You need to create the **ExternalStylesheet** folder in the **ShowOnWheels** folder to complete this activity. In addition, you need to save the **background.gif** file that is provided as an input in the **ExternalStylesheet** folder.*

Task 2: Linking the Style Sheet in the home.html File

To link the external style sheet in the **home.html** file, you need to perform the following steps:

1. Open the **home.html** file in Notepad.
2. Add the following code snippet after the `</TITLE>` tag:

```

<LINK type="text/css"
rel="stylesheet"
href="ExternalStylesheet/
homestylesheet.css" />

```

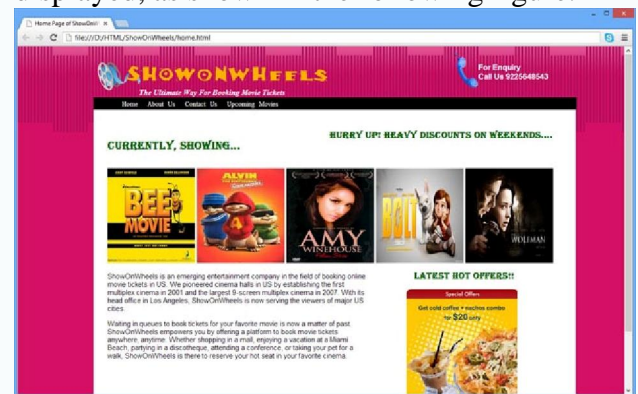
The preceding code snippet links the **homestylesheet.css** style sheet with the **home.html** file by using the HREF attribute of the <LINK> tag.

3. Save the **home.html** file.

Task 3: Viewing the Home Page

To view the home page, you need to perform the following steps:

1. Open Google Chrome.
2. Type **D:\HTML\ShowOnWheels\home.html** in the address bar.
3. Press the **Enter** key. The home page will be displayed, as shown in the following figure.



The Home Page of ShowOnWheels

4. Close the Web browser.



Activity 2.2: Applying Transitions, Animations, and Transformations

Problem Statement

Steve has applied the styles to enhance the look and feel of the home page of ShowOnWheels. Now, he wants to apply certain animations on the Web page to make the website appealing. For this, Steve decides to change the color of the following text:

HURRY UP!

Help Steve to implement the preceding style.

Prerequisite: To perform this activity, you need to use the solution file of Activity 2.1. Ask your faculty to provide you the same.

Solution

To implement the animation in the home page, you need to perform the following tasks:

1. Create the ID selectors for animation in the **homestylesheet.css** file.
2. Embed the animation in the **home.html** file.
3. View the **home.html** file.

Task 1: Creating the ID Selectors for Animation in the homestylesheet.css File

To create the ID selectors, you need to perform the following steps:

1. Open the **homestylesheet.css** file.
2. Add the following code snippet at the end of the **homestylesheet.css** file:

```
@keyframes multicolor
{
0% {color:darkgreen;}
40% {color:hotpink;}
60%{color:darkgreen;}
80% {color:hotpink;}
}
@-webkit-keyframes multicolor /*
Chrome */
{
0% {color:darkgreen;}
40% {color:hotpink;}
60%{color:darkgreen;}
80% {color:hotpink;}
}
.auto-style2{
font-size:40px;
animation:multicolor 5s
infinite;
-webkit-animation:multicolor 5s
infinite; /*Chrome */
}
```

The preceding code snippet creates the @keyframes ID selector and auto-style2 class to change the color of the required text.

3. Save the **homestylesheet.css** file.

Task 2: Embedding the Animation in the home.html File

To embed the animation in the **home.html** file, you need to perform the following steps:

1. Open the **home.html** file.
2. Replace the **Hurry Up! Heavy Discounts on weekends....** line of code with the following code snippet:

```
<SPAN class="auto-style2"> Hurry Up!</SPAN> Heavy Discounts on weekends....</H1>
```

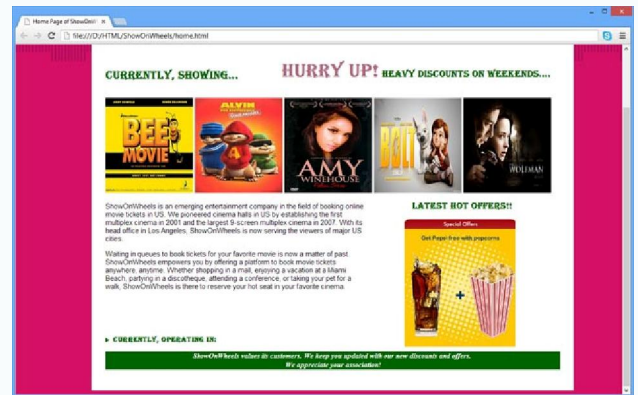
The preceding code snippet applies the auto-style2 style to the text, **Hurry Up!**.

3. Save the **home.html** file.

Task 3: Viewing the home.html File

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

1. Open Google Chrome.
 2. Type **D:\HTML\ShowOnWheels\home.html** in the address bar.
 3. Press the **Enter** key.
- The color of the **HURRY UP!** text gets changed in the home page, as shown in the following figure.



The Home Page Showing the HURRY UP! Text in Different Color

4. Close the Web browser.

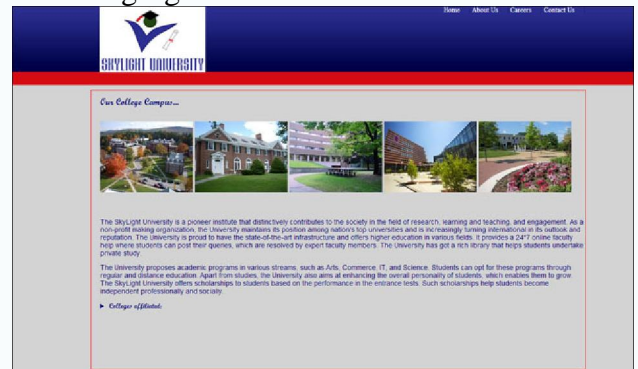
Exercises

Exercise 1

The home page of the website of the SkyLight University has been created. However, the management does not find the website attractive. Therefore, the development team is informed about the requirement of enhancing the look and feel of the Web page. You have been assigned the task of creating a style sheet that needs to be applied on the Web pages. For this, you have decided to create the following styles in the style sheet:

- The logo should appear at the top of the Web page.
- The links should be displayed at the top-right corner of the home page.
- The text should appear in blue color with the font size, 15 on the home page.
- A background image needs to be applied on the home page.
- The list of colleges should appear in the font size, 15, with the font style, Script MT Bold.
- The heading 'Our College Campus' should appear in the font size, 20, with the font style, Script MT Bold.

The home page should appear, as shown in the following figure.



The Home Page of the SkyLight University

Prerequisite: To perform this exercise, you need to use the solution file created for Exercise 1 of Chapter 1. In addition, you need the **background.gif** file. Ask your faculty to provide you the same.



Exercise 2

The home page of the FoodHub website has been created. However, the management finds that the look and feel of the Web page is not appealing to the users. Therefore, the organization has decided to apply style sheets to the Web pages. Now, you have been assigned the task to apply style sheets, as per the following guidelines:

- Q The logo should appear at the top of the page.
- Q The images should be displayed at the bottom of the page. They should appear as navigation links on the website.
- Q A background image needs to be applied horizontally along with the background color, #aacf43.
- Q The list of cuisines should appear in the font size, 15, with the font style, Script MT Bold.
- Q The heading 'Come with your family or friends to cater brilliant tastes' should appear in the font size, 20, with the font style, Script MT Bold.
- Q The text should appear in green color on the home page.

The home page should appear, as shown in the following figure.



The Home Page of the FoodHub Website

Prerequisite: To perform this exercise, you need to use the solution file created for Exercise 2 of Chapter 1. In addition, you need the **background.gif** image. Ask your faculty to provide you the same.



Exercise 3

After applying styles on the home page of the FoodHub website, you need to perform the following transformations on the Web page:

- Q The links should appear in such a way that they get scaled whenever the user moves the mouse pointer on them.
- Q The paragraphs should appear in such a way that they get bold whenever the user moves the mouse pointer to them.

The home page should appear, as shown in the

following figure.

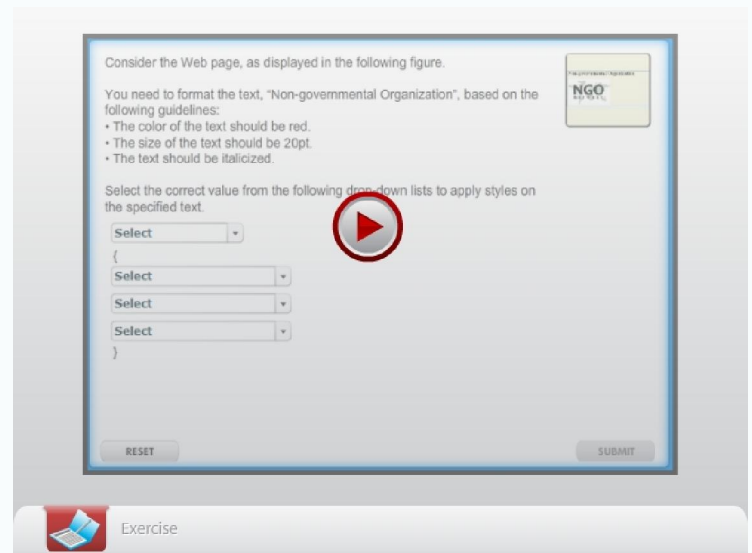


The Home Page of the FoodHub Website

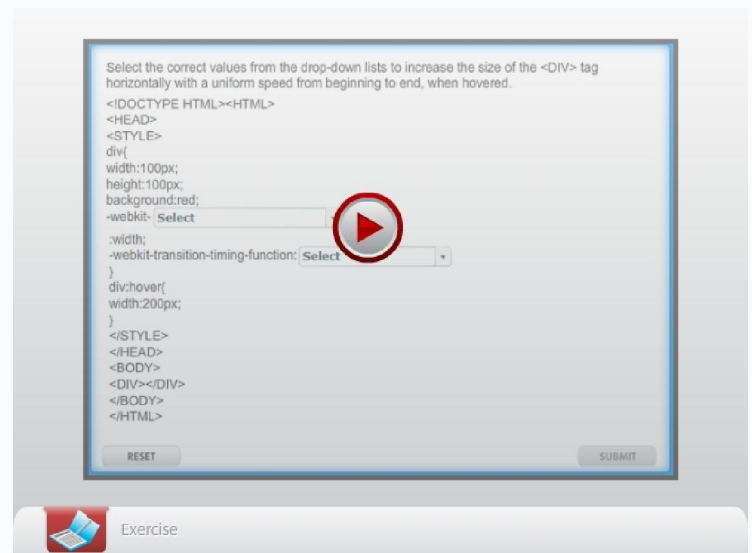
Prerequisite: To perform this exercise, you need to use the solution file created for Exercise 2 of Chapter 2. Ask your faculty to provide you the same.



Exercise 4



Exercise 5



Chapter 3

Working with Tables and Frames



Activity 3.1: Creating a Table

Problem Statement

ShowOnWheels wants to add the details and the show timings of the movies to be screened in the upcoming months on the website. This will help the customers in booking the shows of their choice. Steve is a Web developer with WebCreator Inc. He has been assigned this task. The Web page should incorporate the following features:

- It should display the details of the movies in a tabular format.
- The table should have the following columns:
 - × Movie Category
 - × Movie Title
 - × Starring
 - × Director
 - × Release Date
 - × Certificate
 - × Online Bookings
- More than one movie can belong to a particular movie category.
- The Starring column should contain some space to display three starring names.
- The Web page should have a heading as Upcoming Movies.
- The table should have a border in the dark green color.
- The background of the table headings should be dark green.
- The text color of rows should be dark green.

Prerequisite: You need to use the solution of **ShowOnWheels** that you have created in Activity 2.2 to perform this activity. Ask your faculty to provide you the same.

Solution

To create a table on a Web page, you need to perform the following tasks:

1. Create a table.
2. Apply internal styles.
3. View the home page.

Task 1: Creating a Table

To create a table, you need to perform the following steps:

1. Open the **upcomingmovies.html** file.
2. Add the following code snippet after the `overflow: hidden; background-color: white; ">` line of code:

```
<H4><B><I><CENTER>Upcoming  
Movies</CENTER></I></B></H4>  
The preceding code snippet creates the heading  
for the table.
```

3. Add the following code snippet after the `<H4><I><CENTER>Upcoming Movies</CENTER></I></H4>` line of code:

```
<TABLE>  
<TR>  
<TH>Movie Category</TH>  
<TH>Movie Title</TH>  
<TH colspan="3">Starring</TH>  
<TH>Director</TH>  
<TH>Release Date</TH>  
<TH>Certificate</TH>  
<TH>Online Bookings</TH>  
</TR>
```

The preceding code snippet creates the header for the table. The `colspan` attribute creates three column space for the Starring header.

4. Add the following code snippet after the `<TH>Online Bookings</TH></TR>` line of code:

```
<TR>  
<TD rowspan="2">Thriller</TD>  
<TD>A Dame to kill for</TD>  
<TD>Jennifer Lawrence</TD>  
<TD>Patrick</TD>  
<TD>Evan</TD>  
<TD>Freddie Highmore</TD>  
<TD>12 Jan, 2013</TD>  
<TD>UA</TD>  
<TD> <A href="">BookYourShow</A></TD>  
</TR>
```

The preceding code snippet creates the rows for the category, Thriller.

5. Add the following code snippet after the `<TD>BookYourShow</TD></TR>` lines of code:

```
<TR>  
<TD>Prisoners</TD>  
<TD>Evan Rachel Wood</TD>  
<TD>Rachel Wood</TD>  
<TD></TD>  
<TD>Victoria A.</TD>  
<TD>19 Jan, 2013</TD>  
<TD>UA</TD>  
<TD> <A href="">BookYourShow</A></TD>  
</TR>  
<TR>  
<TD rowspan="3">Romantic</TD>  
<TD>A Walk to remember-II</TD>  
<TD>Ellen Page</TD>  
<TD>Rachel Wood</TD>  
<TD>Victoria</TD>  
<TD>Freddie Highmore</TD>
```

```

<TD>27 Feb, 2013</TD>
<TD>UA</TD>
<TD> <A href="">BookYourShow</
A></TD>
</TR>
<TR>
<TD>Twilight Saga</TD>
<TD>Patrick</TD>
<TD>Wood A. Han</TD>
<TD>Victoria</TD>
<TD>Victoria A.</TD>
<TD>17 May, 2013</TD>
<TD>UA</TD>
<TD> <A href="">BookYourShow</
A></TD>
</TR>
<TR>
<TD>If Only_II</TD>
<TD>Ellina Smith</TD>
<TD>Rachel Wood</TD>
<TD></TD>
<TD>Robert Vann</TD>
<TD>23 June, 2013</TD>
<TD>A</TD>
<TD> <A href="">BookYourShow</
A></TD>
</TR>
<TR>
<TD rowspan="4">Action</TD>
<TD>Star Wars</TD>
<TD>Robert</TD>
<TD>Logan Lerman</TD>
<TD></TD>
<TD>Ariana Grande</TD>
<TD>23 June, 2013</TD>
<TD>UA</TD>
<TD> <A href="">BookYourShow</
A></TD>
</TR>
<TR>
<TD>Man of Steel</TD>
<TD>Patrick</TD>
<TD>Rachel Wood</TD>
<TD></TD>
<TD>Victoria A.</TD>
<TD>17 May, 2013</TD>
<TD>UA</TD>
<TD> <A href="">BookYourShow</
A></TD>
</TR>
<TR>
<TD>Area 52</TD>
<TD>Dianna</TD>
<TD>Alice</TD>
<TD></TD>
<TD>Robert S. Vann</TD>
<TD>28 Sep, 2013</TD>
<TD>A</TD>
<TD> <A href="">BookYourShow</

```

```

A></TD>
</TR>
<TR>
<TD>2 Guns</TD>
<TD>Illiana</TD>
<TD>John Park</TD>
<TD>William</TD>
<TD>Josh Hutcherson</TD>
<TD>23 Oct, 2013</TD>
<TD>UA</TD>
<TD> <A href="">BookYourShow</
A></TD>
</TR>
</TABLE>

```

The preceding code snippet creates the other rows for the table.

6. Delete the following code:

```

<DIV style="width: 300px;
margin-top: 80px; margin-left:
200px; margin-right: auto">
<IMG src="images
\Underconstruction.png"
width="600" height="300"> </DIV>

```

Task 2: Applying Internal Styles

To apply internal styles on the table, you need to perform the following steps:

1. Add the following code snippet after the

```

<HEAD> tag:
<STYLE>
table
{
position:absolute;
top:140px;
left:10px;
right:120px;
border:solid 4px green;
}

```

The preceding code snippet applies style to the <TABLE> tag.

2. Add the following code snippet after the border:solid 4px green; } line of code:

```

td
{
text-align:center;
border:solid 1px green;
padding:3px;
}
th
{
background-color:green;
color:white;
border:solid 1px green;
}
tr{
color:green;
}
</STYLE>

```

The preceding code snippet applies styles to the

<TD>, <TH>, and <TR> tags.

3. Save the **upcomingmovies.html** file.

Task 3: Viewing the Home Page

To view the home page, you need to perform the following steps:

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

Upcoming Movies Page 1

[Home](#)
[About Us](#)
[Contact Us](#)
[Upcoming Movies](#)



SHOW ON WHEELS

The Ultimate Way For Booking Movie Tickets



For Enquiry
Call Us 9226648543

UPCOMING MOVIES

Movie Category	Movie Title	Starring	Director	Release Date	Certificate	Online Bookings		
Thriller	A Dance to kill for	Jessica Lawrence	Patrick	Erin	Freddie Highmore	12 Jan, 2013	UA	Book Your Show
	Prisoners	Ewan Rachel Wood	Rachel Wood	Victoria A.	Freddie Highmore	19 Jan, 2013	UA	Book Your Show
	A Walk to remember II	Elen Page	Rachel Wood	Victoria	Freddie Highmore	27 Feb, 2013	UA	Book Your Show
Romantic	Twilight Saga	Patrick	Wood A. Han	Victoria	Victoria A.	17 May, 2013	UA	Book Your Show
	If Only... II	Ellena Smith	Rachel Wood	Robert Viam	22 June, 2013	A	Book Your Show	
	Star Wars	Robert	Logan Lennan	Adama Grande	29 June, 2013	UA	Book Your Show	
Action	Man of Steel	Patrick	Rachel Wood	Victoria A.	17 May, 2013	UA	Book Your Show	
	Jane 52	Denna	Alice	Robert S. Viam	28 Sep, 2013	A	Book Your Show	
	2 Guns	Hana	John Patric	W. Blum	Jack Blackman	27 Oct, 2013	UA	Book Your Show

The UPCOMING MOVIES Page

5. Close the Web browser.



Activity 3.2: Accessing Multiple Web Pages Using Frames

Problem Statement

ShowOnWheels wants the home page to be modified in such a way that once a user clicks a link, the corresponding Web page should be displayed in a section of the home page. Therefore, all the pages should be displayed in a single window. Steve has been asked to implement this functionality. The home page should be divided according to the structure shown in the following figure.



The Structure of the Home Page

The following guidelines need to be followed while designing the home page:

- Q The sections should not display any border.
- Q The header section should display the name and

logo of the company.

- Q There should be a separate section for the navigation links.
- Q When the user clicks any link, the corresponding page should be displayed in a section of the home page.

Prerequisite: You need to use the solution of **ShowOnWheels** that you have created in Activity 3.1 to perform this activity. Ask your faculty to provide you the same.

Solution

To divide a Web page into different sections, you need to perform the following tasks:

1. Create frames.
2. Create the logo.html file.
3. Create the nav.html file.
4. Create the background.html file.
5. Update the home.html file.
6. Update the aboutus.html file.
7. Update the contactus.html file.
8. Update the upcomingmovies.html file.
9. Update the homestylesheet.css file.
10. View the main frame.

Task 1: Creating Frames

To create frames, you need to perform the following steps:

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

```
<!DOCTYPE HTML>
<HTML><HEAD><TITLE>Home Page of
ShowOnWheels</TITLE>
<STYLE>
    #frm1 {

        float: left;
        border: 0px;

    }
    #frm2 {

        float: right;
        border: 0px;
    }
    #frm3 {
        float: middle;
        border: 0px;
    }
</STYLE>
</HEAD>
<BODY>
    <IFRAME ID="frm1"
    src="background.html"
    height=1000 width=17%
    name="frame2"></IFRAME>
    <IFRAME ID="frm2"
    src="background.html" width=18%
    height=1000 name="frame3"></
IFRAME>
```



```

<IFRAME ID="frm3"
src="logo.html" width=65%
height=200 name="frame1"></
IFRAME>
<IFRAME ID="frm3"
src="nav.html" width=65%
height=40 name="frame4"></
IFRAME>
<IFRAME ID="frm3"
src="home.html" width=65%
height=750 name="frame5"></
IFRAME>
</BODY>
</HTML>

```

The preceding code snippet creates five frames named frame1, frame2, frame3, frame4, and frame5 in the home page.

3. Save the file with the name, **mainframe.html**, in the **ShowOnWheels** folder.

Task 2: Creating the logo.html File

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

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

```

<HTML><HEAD></TITLE>Home Page of
ShowOnWheels</TITLE>
<LINK type="text/css"
rel="stylesheet"
href="ExternalStylesheet
\homestylesheet.css" />
<STYLE>
body{
background-color:D51165;
background-image:url
('background.gif');
background-repeat:repeat-x;
margin-bottom:0px;
}
</STYLE>
</HEAD>
<BODY>
<IMG id="logo" src="images
\Logo.png" width="500"
height="78">
<H5>For Enquiry<BR>Call Us
9225648543</H5>
<IMG id="callus" src="images
\callus.png" width="60"
height="60">
</DIV>
<DIV style="width:500px;
height:10px; margin-left:100px;
margin-top:0px;text-align:
left;">
<SPAN class="auto-style1"><B>The
Ultimate Way For Booking Movie
Tickets</I></B></SPAN>
</DIV>
</BODY>

```

```

</HEAD>
</HTML>

```

The preceding code snippet displays the images of logo and phone in frame1.

3. Save the file with the name, **logo.html**, in the **ShowOnWheels** folder.

Task 3: Creating the nav.html File

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

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

```

<HTML>
<HEAD>
<LINK type="text/css"
rel="stylesheet"
href="ExternalStylesheet
\homestylesheet.css" />
<STYLE>
body{
background-color:black;
margin-left:50px;
}
</STYLE>
</HEAD>
<BODY>
<NAV>
<A href="home.html"
target="frame5">Home</A> |
<A href="aboutus.html"
target="frame5">About Us</A> |
<A href="contactus.html"
target="frame5">Contact Us</A> |
<A href="upcomingMovies.html"
target="frame5">Upcoming
Movies</A> |
</NAV>
</BODY></HTML>

```

The preceding code snippet displays the navigational links in frame4 and opens them in frame5.

3. Save the file with the name, **nav.html**, in the **ShowOnWheels** folder.

Task 4: Creating the background.html File

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

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

```

<HTML>
<HEAD>
<STYLE>
body{
background-color:D51165;
background-image:url
('background.gif');
background-repeat:repeat-x;
}
</STYLE>

```

```

</HEAD>
<BODY>
</BODY></HTML>

```

The preceding code snippet applies styles on the frame2 and frame3 frames.

3. Save the file with the name, **background.html**, in the **ShowOnWheels** folder.

Task 5: Updating the home.html File

To update the **home.html** file, you need to perform the following steps:

1. Open the **home.html** file.
2. Replace the existing code with the following code:

```

<HTML>
<HEAD>
<TITLE>Home Page of
ShowOnWheels</TITLE>
<LINK type="text/css"
rel="stylesheet"
href="ExternalStylesheet/
homestylesheet.css"/>
</HEAD>
<BODY>
<DIV style="width: 960px;
height: auto; position:
relative; margin:0px; padding-
left: 29px; overflow: hidden;
background-color: white;">
    <H4>Currently, showing...</
H4>
    <IMG src="images
\movieimage1_bee.png"
width="185" height="200">
    <IMG src="images
\movieimage2_alvin.jpg"
width="185" height="200">
    <IMG src="images
\movieimage3_amy.jpg"
width="185" height="200">
    <IMG src="images
\movieimage4_bolt.jpg"
width="185" height="200">
    <IMG src="images
\movieimage5_wolf.jpg"
width="185" height="200">
    <ARTICLE>
        <P>

```

ShowOnWheels is an emerging entertainment company in the field of booking online movie tickets in US. We pioneered cinema halls in US by establishing the first multiplex cinema in 2001 and the largest 9-screen multiplex cinema in 2007. With its head office in Los Angeles, ShowOnWheels is now serving the viewers of major US

cities.

```

        </P>
        <P>
            Waiting in queues to
            book tickets for your favorite
            movie is now a matter of past.
            ShowOnWheels empowers you by
            offering a platform to book
            movie tickets anywhere, anytime.
            Whether shopping in a mall,
            enjoying a vacation at a Miami
            Beach, partying in a
            discotheque, attending a
            conference, or taking your pet
            for a walk, ShowOnWheels is
            there to reserve your hot seat
            in your favorite cinema.
        </P>
    </ARTICLE><BR><BR><BR><BR>
    <DETAILS>
        <SUMMARY><B>Currently,
        operating in:</B></SUMMARY>
        <UL>
            <LI>
                Los Angeles
            <LI>
                Chicago
            <LI>Houston </LI>
        </UL>
        With an annual turnover of
        US $12 million, ShowOnWheels is
        expanding its wings. We are
        launching three new screens in
        South Africa, shortly.
    </DETAILS>
    <H1>
        <BR>
        <SPAN class="auto-
        style2"> Hurry Up!</SPAN> Heavy
        Discounts on weekends....</H1>
    <ASIDE>
        <P>
            <I><B>ShowOnWheels
            values its customers. We keep
            you updated with our new
            discounts and offers.
        <BR>
            We appreciate your
            association!</B></I>
        </P>
    </ASIDE>
    <H3>Latest Hot Offers!!</
H3>
    <VIDEO width="380"
    height="268" controls
    autoplay="autoplay" loop>
    <SOURCE src="video
    \latestOffers.webm" type="video/
    mp4" />

```

Your browser does not support this audio format.

</VIDEO>

</DIV>

</BODY>

</HTML>

The preceding code snippet displays the content of the home page in frame5.

3. Save and close the **home.html** file.

Task 6: Updating the aboutus.html File

To update the **aboutus.html** file, you need to perform the following steps:

1. Open the **aboutus.html** file.
2. Replace the existing code with the following code:

```
<HTML>
<HEAD>
<TITLE>Contact Us Page of
ShowOnWheels</TITLE>
<LINK type="text/css"
rel="stylesheet"
href="ExternalStylesheet
\homestylesheet.css" />
</HEAD>
<BODY>
<div style="width: 300px;
margin-top: 80px; margin-left:
200px; margin-right: auto">
<IMG src="images
\Underconstruction.png"
width="600" height="300">
</DIV>
</BODY>
</HTML>
```

The preceding code snippet displays the content of the aboutus page.

3. Save and close the **aboutus.html** file.

Task 7: Updating the contactus.html File

To update the **contactus.html** file, you need to perform the following steps:

1. Open the **contactus.html** file.
2. Replace the existing code snippet with the following code:

```
<HTML>
<HEAD>
<TITLE>Contact Us Page of
ShowOnWheels</TITLE>
<LINK type="text/css"
rel="stylesheet"
href="ExternalStylesheet
\homestylesheet.css" />
</HEAD>
<BODY>
<DIV style="width: 300px;
margin-top: 80px; margin-left:
200px; margin-right: auto">
<IMG src="images
\Underconstruction.png"
width="600" height="300">
```

</DIV>

</BODY>

</HTML>

The preceding code snippet displays the content of the contactus page.

3. Save and close the **contactus.html** file.

Task 8: Updating the upcomingmovies.html File

To update the **upcomingmovies.html** file, you need to perform the following steps:

1. Open the **upcomingmovies.html** file.
2. Replace the existing code with the following code:

```
<HTML>
<HEAD>
<TITLE>Upcoming Movies Page of
ShowOnWheels</TITLE>
<LINK type="text/css"
rel="stylesheet"
href="ExternalStylesheet
\homestylesheet.css" />
<STYLE>
table
{
position:absolute;
top:140px;
left:10px;
right:120px;
border:solid 4px green;
}
td
{
text-align:center;
border:solid 1px green;
padding:3px;
}
th
{
background-color:green;
color:white;
border:solid 1px green;
}
tr{
color:green;
}
</STYLE></HEAD><BODY>
<H4><B><I><CENTER>Upcoming
Movies</CENTER></I></B></H4>
<TABLE>
<TR>
<TH>Movie Category</TH>
<TH>Movie Title</TH>
<TH colspan="3">Starring</TH>
<TH>Director</TH>
<TH>Release Date</TH>
<TH>Certificate</TH>
<TH>Online Bookings</TH>
</TR>
<TR>
<TD rowspan="2">Thriller</TD>
```

```

<TD>A Dame to kill for</TD>
<TD>Jennifer Lawrence</TD>
<TD>Patrick</TD>
<TD>Evan</TD>
<TD>Freddie Highmore</TD>
<TD>12 Jan, 2013</TD>
<TD>UA</TD>
<TD> <A href="">BookYourShow</
A></TD>
</TR>
<TR>
<TD>Prisoners</TD>
<TD>Evan Rachel Wood</TD>
<TD>Rachel Wood</TD>
<TD></TD>
<TD>Victoria A.</TD>
<TD>19 Jan, 2013</TD>
<TD>UA</TD>
<TD> <A href="">BookYourShow</
A></TD>
</TR>
<TR>
<TD rowspan="3">Romantic</TD>
<TD>A Walk to remember-II</TD>
<TD>Ellen Page</TD>
<TD>Rachel Wood</TD>
<TD>Victoria</TD>
<TD>Freddie Highmore</TD>
<TD>27 Feb, 2013</TD>
<TD>UA</TD>
<TD> <A href="">BookYourShow</
A></TD>
</TR>
<TR>
<TD>Twilight Saga</TD>
<TD>Patrick</TD>
<TD>Wood A. Han</TD>
<TD>Victoria</TD>
<TD>Victoria A.</TD>
<TD>17 May, 2013</TD>
<TD>UA</TD>
<TD> <A href="">BookYourShow</
A></TD>
</TR>
<TR>
<TD>If Only-II</TD>
<TD>Ellina Smith</TD>
<TD>Rachel Wood</TD>
<TD></TD>
<TD>Robert Vann</TD>
<TD>23 June, 2013</TD>
<TD>A</TD>
<TD> <A href="">BookYourShow</
A></TD>
</TR>
<TR>
<TD rowspan="4">Action</TD>
<TD>Star Wars</TD>
<TD>Robert</TD>

```

```

<TD>Logan Lerman</TD>
<TD></TD>
<TD>Ariana Grande</TD>
<TD>23 June, 2013</TD>
<TD>UA</TD>
<TD> <A href="">BookYourShow</
A></TD>
</TR>
<TR>
<TD>Man of Steel</TD>
<TD>Patrick</TD>
<TD>Rachel Wood</TD>
<TD></TD>
<TD>Victoria A.</TD>
<TD>17 May, 2013</TD>
<TD>UA</TD>
<TD> <A href="">BookYourShow</
A></TD>
</TR>
<TR>
<TD>Area 52</TD>
<TD>Dianna</TD>
<TD>Alice</TD>
<TD></TD>
<TD>Robert S. Vann</TD>
<TD>28 Sep, 2013</TD>
<TD>A</TD>
<TD> <A href="">BookYourShow</
A></TD>
</TR>
<TR>
<TD>2 Guns</TD>
<TD>Illiana</TD>
<TD>John Park</TD>
<TD>William</TD>
<TD>Josh Hutcherson</TD>
<TD>23 Oct, 2013</TD>
<TD>UA</TD>
<TD> <A href="">BookYourShow</
A></TD>
</TR>
</TABLE>
</BODY>
</HTML>

```

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

Task 9: Updating the homestylesheet.css File

To update the **homestylesheet.css** file, you need to perform the following steps:

1. Move the **background.gif** file from the **ExternalStylesheet** folder to the **ShowOnWheels** folder.
2. Open the **homestylesheet.css** file available in the **ExternalStylesheet** folder.
3. Replace the `top: 320px;` line of code with the following code snippet:
`top: 300px;`
4. Replace the `top: 380px;` line of code with the following code snippet:
`top: 350px;`

5. Delete the following code snippet:

```
body {
    background-color: #D51165;
    background-image: url
('background.gif');
    background-repeat: repeat-
x;
}
```

6. Save and close the **homestylesheet.css** file.

Task 10: Viewing the Main Frame

To view the main frame, you need 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 main frame appears, as shown in the following figure.



Displaying the Main Frame

4. Close the Web browser.

Exercises

Exercise 1

The SkyLight University has launched some new courses. It wants that the details of these courses, such as the course title, duration, fees, eligibility criteria, total seats available, and colleges offering the courses, should be listed for the students on its website. To enhance readability, the entire data needs to be arranged in a tabular format. In addition, there should be a link that allows students to enroll for the courses. For this, the following tasks need to be performed:

- q Create a Web page named Courses, and a link to this page should be visible along with other links.
- q Design a table with the caption, Course Details, and the columns with the headings, Course Title, Course Duration, Eligibility Criteria, Total Seats Available, Fees, College, and Enroll Yourself, in the Courses page.

The Courses page should appear, as shown in the following figure.

Course Details						
Course Title	Course Duration	Eligibility Criteria	Total Seats Available	Fees	College	Enroll Yourself
AREA STUDIES	Two Years	Graduate	25	\$200	College of Cal Poly Pomona	Register
ART EDUCATION	One Year	Graduate	80	\$600	City College of New York	Register
BIOLOGICAL TECHNOLOGY	Three Years	Graduate	10	\$1200	Community College of Vermont	Register
BOTANY	Two Years	Graduate	5	\$1000	College of Saint Elizabeth	Register
CELL BIOLOGY	Two Years	Graduate	30	\$400	College of Staten Island	Register
COMMUNICATIONS	One Year	Graduate	90	\$400	Davidson College	Register
ENGLISH COMPOSITION	One Year	Graduate	150	\$50	Franklin & Marshall College	Register
NURSING EDUCATION	One Year	Graduate	150	\$40	Ithaca College	Register
NUTRITIONAL SCIENCES	One Year	Graduate	200	\$40	Providence College	Register
TAXATION	Three Years	Graduate	5	\$1000	College of Saint Elizabeth	Register
TOXICOLOGY	One Year	Graduate	100	\$800	Davidson College	Register
SOCIAL PSYCHOLOGY	Two Years	Graduate	180	\$20	Ithaca College	Register
PLANT PROTECTION	One Year	Graduate	150	\$10	Ithaca College	Register
PREPHARMACY	One Year	Graduate	20	\$20	Providence College	Register
TRANSPORTATION MANAGEMENT	One Year	Graduate	100	\$800	Davidson College	Register
URBAN STUDIES	Two Years	Graduate	180	\$20	Ithaca College	Register
VETERINARY SPECIALITIES	One Year	Graduate	150	\$10	Ithaca College	Register
WATER TRANSPORTATION	One Year	Graduate	10	\$20	Providence College	Register

The Courses Page

How will you create the Courses page?

Prerequisite: To perform this exercise, you need to use the solution file created for Exercise 1 of Chapter 2.



Exercise 2

After creating the table on the Courses page of the SkyLight University website, you need to apply styles as per the following guidelines:

- q The table should have a solid blue border of 2px thickness.
- q The background color for the table header should be navy blue.

The table after applying styles should appear, as shown in the following figure.

Course Details						
Course Title	Course Duration	Eligibility Criteria	Total Seats Available	Fees	College	Enroll Yourself
AREA STUDIES	Two Years	Graduate	25	\$200	College of Cal Poly Pomona	Register
ART EDUCATION	One Year	Graduate	80	\$600	City College of New York	Register
BIOLOGICAL TECHNOLOGY	Three Years	Graduate	10	\$1200	Community College of Vermont	Register
BOTANY	Two Years	Graduate	5	\$1000	College of Saint Elizabeth	Register
CELL BIOLOGY	Two Years	Graduate	30	\$400	College of Staten Island	Register
COMMUNICATIONS	One Year	Graduate	90	\$400	Davidson College	Register
ENGLISH COMPOSITION	One Year	Graduate	150	\$50	Franklin & Marshall College	Register
NURSING EDUCATION	One Year	Graduate	150	\$40	Ithaca College	Register
NUTRITIONAL SCIENCES	One Year	Graduate	200	\$40	Providence College	Register
TAXATION	Three Years	Graduate	5	\$1000	College of Saint Elizabeth	Register
TOXICOLOGY	One Year	Graduate	100	\$800	Davidson College	Register
SOCIAL PSYCHOLOGY	Two Years	Graduate	180	\$20	Ithaca College	Register
PLANT PROTECTION	One Year	Graduate	150	\$10	Ithaca College	Register
PREPHARMACY	One Year	Graduate	20	\$20	Providence College	Register
TRANSPORTATION MANAGEMENT	One Year	Graduate	100	\$800	Davidson College	Register
URBAN STUDIES	Two Years	Graduate	180	\$20	Ithaca College	Register
VETERINARY SPECIALITIES	One Year	Graduate	150	\$10	Ithaca College	Register
WATER TRANSPORTATION	One Year	Graduate	10	\$20	Providence College	Register

The Table After Applying Styles

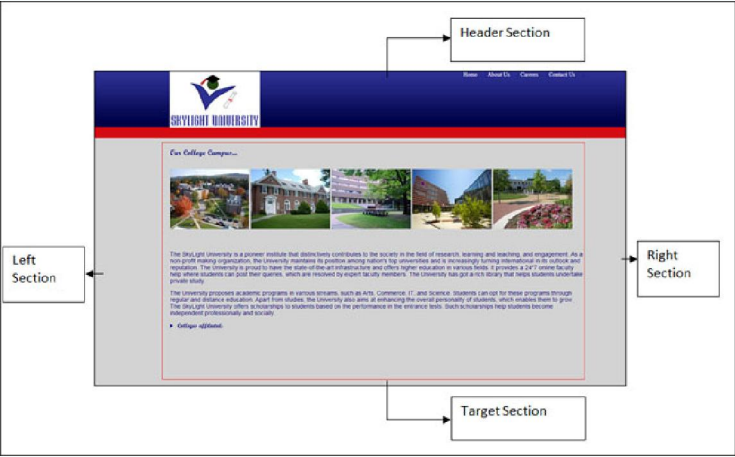
Prerequisite: To perform this exercise, you need to use the solution file created for Exercise 1 of Chapter 3.



Exercise 3

The home page of the SkyLight University needs to be

divided into different sections, as shown in the following figure.



The Home Page Divided into Different Sections
The following guidelines need to be followed while designing this page:

- The header section should display the logo and links for the university.
- When the user clicks a link, the corresponding page should be displayed in the target section.

Prerequisite: To perform this exercise, you need to use the solution file created for Exercise 1 of Chapter 3.



Exercise 4

An automobile company decides to build a website for its company to enhance the sales and attract more customers. The home page of the website should show the details of various car companies in a tabular format. Steve, a website designer, has been assigned this task. The table should appear, as shown in the following figure.

Four Wheelers			
Cars/UVs/Vans			
Company	Jan 2013	Jan 2012	%increase
Maruti Suzuki	1,01,047	1,00,422	1
Tata Motors	34,669	30,212	14
Mahindra	19,975	17,208	16
Toyota Kirloskar	17,395	9,187	89

The Table Displaying Names of Car Companies



Exercise 5

After designing the Web page for the automobile company, Steve has been assigned the task to enhance the look and feel of the table appearing on the home

page. For this, Steve needs to apply styles on the table, as shown in the following figure.

Four Wheelers			
Cars/UVs/Vans			
Company	Jan 2013	Jan 2012	%increase
Maruti Suzuki	1,01,047	1,00,422	1
Tata Motors	34,669	30,212	14
Mahindra	19,975	17,208	16
Toyota Kirloskar	17,395	9,187	89

The Table After Applying Styles

Prerequisite: To perform this exercise, you need to use the solution file created for Exercise 4 of Chapter 3.



Exercise 6

You want to design a table, as shown in the following figure.

Result	Aggregate
Sem-1	Sem-2
80	70

Complete the following HTML code to design the preceding table. For this, you need to drag the options provided on the right side and drop them on to the placeholders on the left side.

```
<HTML><HEAD></HEAD>
<BODY>
<TABLE border="1">
<TR>
<TH colspan="2">
<TR>
<TH>Sem-1</TH>
<TH>Sem-2</TH>
</TR>
<TR>
<TD>80</TD>
<TD>70</TD>
</TR>
</TABLE>
</BODY>
</HTML>
```

Aggregate
<TH colspan="2">
Result
<TH rowspan="2">

SUBMIT

Exercise 7

You need to split the Web page into different sections, as shown in the following figure.

--	--

For this, you need to fill the following blanks by dragging the options provided on the right side and dropping the same on to the left side.


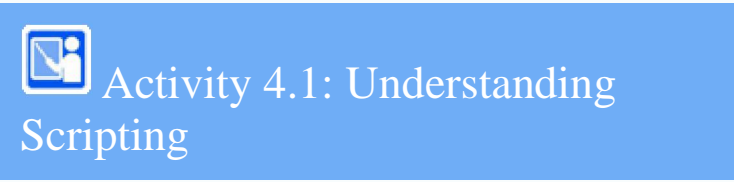
```
<HTML>
<HEAD></HEAD>
<BODY>
<frame name="frame1" width="100%" height="20%">
<frame name="frame2" width="20%" height="60%">
<frame name="frame3" ></frame>
<frame name="frame4" ></frame>
<frame name="frame5" ></frame>
</BODY>
</HTML>
```

width="18%" height="60%"
width="100%" height="20%"
width="60%" height="60%"

SUBMIT

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.

3. 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.

Task 2: Viewing the Home Page

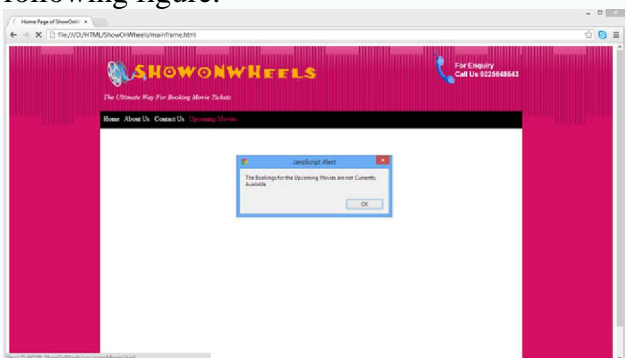
To view the home page, Steve needs to perform the following steps:

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


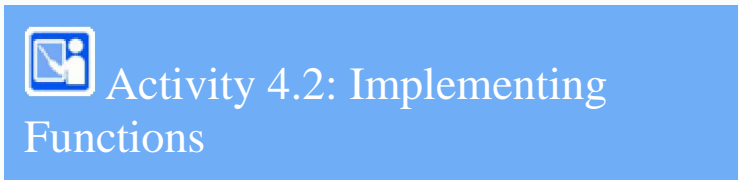
5. Click the **BookYourShow** link. The **JavaScript Alert** dialog box appears, as shown in the following figure.



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.

6. Click the **OK** button.
7. 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.

3. 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.

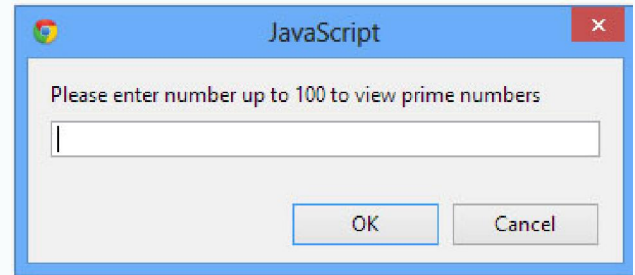
4. Save the file with the name, **prime.html**, at the **D:\HTML** location.

Task 2: Viewing the prime.html File

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

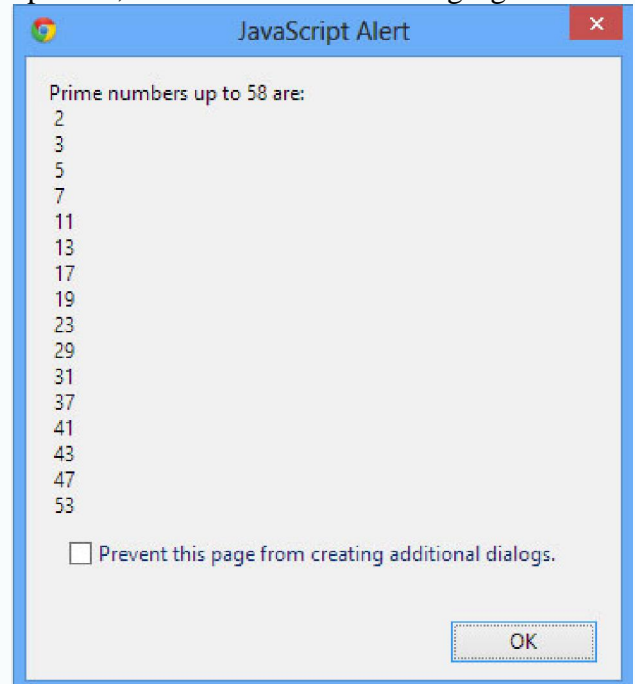
1. Open Google Chrome.

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

4. Type **58** in the **Please enter number up to 100 to view prime numbers** text box.
5. 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

6. Click the **OK** button in the **JavaScript Alert** dialog box.
7. 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.

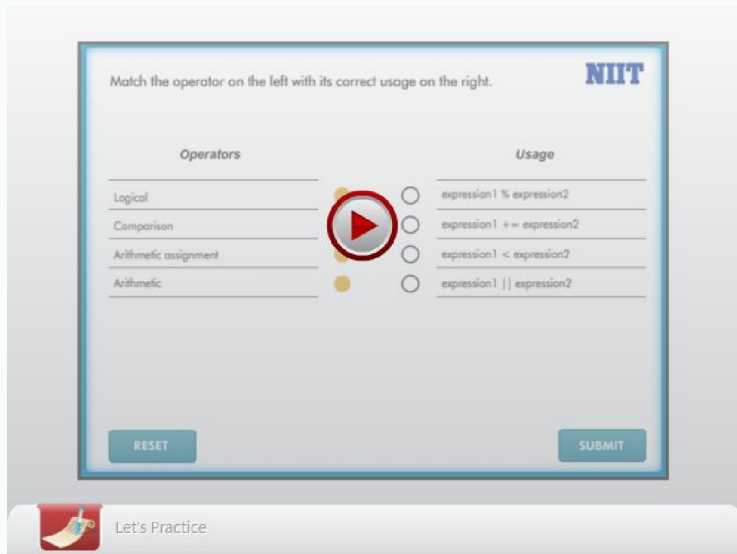


Exercise 2

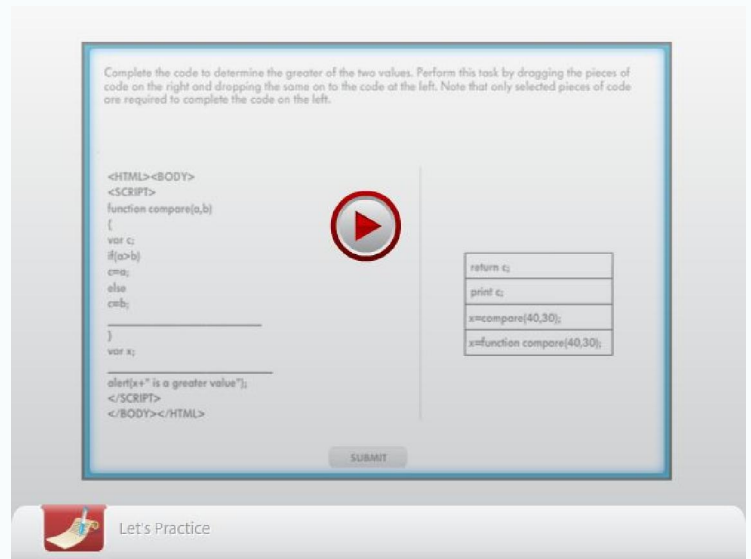
Bob is a Web designer and is given a task to create a website for kids that encourages them to play a puzzle game. The website should accept the number of players from the user and then prompt the user to enter the names of the players. If the user enters a negative number, the user should be alerted 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



Chapter 5

Creating Dynamic Web Pages



Activity 5.1: Designing an HTML Form

Problem Statement

You have been assigned the task to design a form for online booking of movie tickets on the ShowOnWheels website. For this, you need to design the Online Booking Web page. The page needs to be designed according to the following guidelines:

- Q The page should display the form with the header, Book Your Tickets Online.
- Q It should have various fields, such as Name, Date of Bookings, Movie, Show Timings, Select Class, Price, Number of Tickets, and Total Price.
- Q The title of the movies and show timings should be displayed in a drop-down list.
- Q The form should have provision to accept the class that the customer would prefer as platinum, gold, and exclusive.
- Q The Price and Total Price fields should be disabled.
- Q The form should have two buttons, Submit and Reset.
- Q The Web page should display the alerts and updates to the users on the right side of the form.

How will you implement the preceding tasks to create the desired form?

Prerequisite: You need to use the **ShowOnWheels** file that you have created in Activity 4.1 to perform this activity. Ask your faculty to provide you the same.

Solution

To create a form for online booking of movie tickets, you need to perform the following tasks:

1. Create the OnlineBooking.html file.
2. Apply styles on elements.
3. Update the nav.html file.
4. View the form.

Task 1: Creating the OnlineBooking.html File

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

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

```
<!DOCTYPE HTML>
<HTML><TITLE>OnlineBookings
Page</TITLE>
<HEAD>
```

```
</HEAD>
```

```
<BODY>
```

```
<FORM name="form1">
```

```
<TABLE>
```

```
<TR>
```

```
<TH colspan="2">Book Your
Tickets Online</TH>
```

```
</TR>
```

```
<TD>Name</TD>
```

```
<TD><INPUT type="text"
```

```
name="username"
```

```
placeholder="Enter Your Name"
```

```
required></TD>
```

```
</TR>
```

The preceding code snippet creates a form named form1 and displays the header, Book Your Tickets Online. In addition, it creates a text field to accept the users' name.

3. Add the following code snippet after the

```
<TD><INPUT type="text"
```

```
name="username"
```

```
placeholder="Enter Your Name"
```

```
required></TD></TR> line of code:
```

```
<TR>
```

```
<TD> Date of Bookings</TD>
```

```
<TD><INPUT type="date"
```

```
id="bookingdate" required></TD>
```

```
</TR>
```

The preceding code snippet creates the date field to accept date for ticket bookings.

4. Add the following code snippet after the

```
<TD><INPUT type="date"
```

```
id="bookingdate" required></
```

```
TD></TR> line of code:
```

```
<TR>
```

```
<TD>Movie</TD>
```

```
<TD><SELECT id="sel">
```

```
<OPTION value="0">Select Movie</
```

```
OPTION>
```

```
<OPTGROUP label="Drama">
```

```
<OPTION value="1">Nightmare</
```

```
OPTION>
```

```
<OPTION value="2">Along Polly
```

```
Came</OPTION>
```

```
</OPTGROUP>
```

```
<OPTGROUP label="Thriller">
```

```
<OPTION value="3">Source Code</
```

```
OPTION>
```

```
<OPTION value="4">If only</
```

```
OPTION>
```

```
</OPTGROUP>
```

```
<OPTGROUP label="Romantic">
```

```
<OPTION value="5">A walk to
```

```
remember</OPTION>
```

```
<OPTION value="6">Angel</OPTION>
```

```
</OPTGROUP>
```

```
</SELECT></TD>
```

```
</TR>
```

```
<TR>
```



```

<TD>Show Timings</TD>
<TD><SELECT id="timing">
<OPTION value="7">Select Time</
OPTION>
<OPTION value="8">10:30AM</
OPTION>
<OPTION value="9">5:30PM</
OPTION>
<OPTION value="10">12:30PM</
OPTION>
</SELECT></TD>
</TR>

```

The preceding code snippet creates the drop-down lists showing the movie names and the show timings of the movies.

5. Add the following code snippet after the `<OPTION value="10">12:30PM</OPTION></SELECT></TD></TR>` line of code:

```

<TR>
<TD>Select Class</TD>
<TD>
<INPUT type="Radio" name="RB"
required">Platinum</INPUT>
<INPUT type="Radio" name="RB"
required">Gold</INPUT>
<INPUT type="Radio" name="RB"
required">Exclusive</INPUT>
</TD>
</TR>

```

The preceding code snippet creates radio buttons to select the movie class.

6. Add the following code snippet after the `<INPUT type="Radio" name="RB" required">Exclusive</INPUT></TD></TR>` line of code:

```

<TR>
<TD>Price </TD>
<TD><INPUT type="text"
name="price" disabled> </TD>
</TR>
<TR>
<TD>Number of Tickets</TD>
<TD><INPUT type="text"
name="num" placeholder="Enter
Tickets" required> </TD>
</TR>
<TR>
<TD>Total Price</TD>
<TD><INPUT type="text"
name="totalprice" disabled> </
TD>
</TR>

```

The preceding code snippet creates the text field to accept the number of tickets. In addition, it creates the price and totalprice fields, which are kept disabled.

7. Add the following code snippet after the `<TD><INPUT type="text"`

```

name="totalprice" disabled> </
TD></TR> line of code:
<TR>
<TD>
<Input ID="submit"
type="submit"></TD><TD>
<Input type="reset">
</TD>
</TR>
</TABLE>
</FORM>

```

The preceding code snippet creates the submit and reset buttons on the form.

8. Add the following code snippet after the `</FORM>` tag:

```

<H2>Alerts & Updates</H2>
<DIV class="auto-style">
<P>New Payment Options has been
introduced for ticket
bookings.</P>
<P>Mobile Booking is now resumed
w.e.f. 05-April-2012.</P>
<P>ID proof is required for
getting student concession on
tickets.</P>
<P>Ticket Bookings On Mobile:
Now book your movie ticket -
ANYWHERE ANYTIME through your
Mobile Phones. </P>
<P>You are advised not to carry
inflammable/dangerous/explosive
articles as part of their
luggage and also to desist from
smoking in the movie halls.
Please update your mobile number
in our profile to receive SMS
alerts for your ticket
booking.</P>
<P>Never purchase e-ticket from
unauthorized agents or
persons.</P>
<P>No refund will be granted on
cancellation of tickets.</P></
DIV>
</BODY>
</HTML>

```

The preceding code snippet creates a heading and paragraphs showing the alerts and updates for the user.

Task 2: Applying Styles on Elements

To apply styles on elements, you need to perform the following steps:

1. Add the following code snippet after the

```

<HEAD> tag:
<STYLE type="text/css">
#submit{
margin-left:100px;
}
th{

```

```
font-size:20px;
background-color:green;
}
td{
text-align:left;
font-size:20px;
}
table{
border:1px solid green;
}
form{
float:left;
margin-right:20px;
}
```

The preceding code snippet applies styles on the form elements.

2. Add the following code snippet after the `margin-right:20px; }` line of code:

```
p{
font-size:20px;
}
h2{
background-color:green;
border:1px solid green;
margin-left:460px;
}
.auto-style{
/* Chrome */
overflow-x:-webkit-marquee;
-webkit-marquee-direction: up;
-webkit-marquee-style: scroll;
-webkit-marquee-speed:normal;
-webkit-marquee-increment:
small;
-webkit-marquee-repetition:
infinite;
}
</STYLE>
```

The preceding code snippet applies styles on the paragraphs and headings. It also applies the marquee effect on the elements. A marquee is an effect, where the content in the HTML element can be moved horizontally or vertically. In HTML, you can add the marquee effect to the HTML elements with CSS.

3. Save the file with the name, **OnlineBooking.html**, in the **ShowOnWheels** folder.
4. Close the **OnlineBooking.html** file.

Task 3: Updating the nav.html File

To update the **nav.html** file, you need to perform the following steps:

1. Open the **nav.html** file.
2. Add the following code snippet after the `Upcoming Movies |` line of code:
`Online Booking |`

The preceding code snippet creates a link for

the Online Booking Web Page.

3. Save and close the **nav.html** file.

Task 4: Viewing the Form

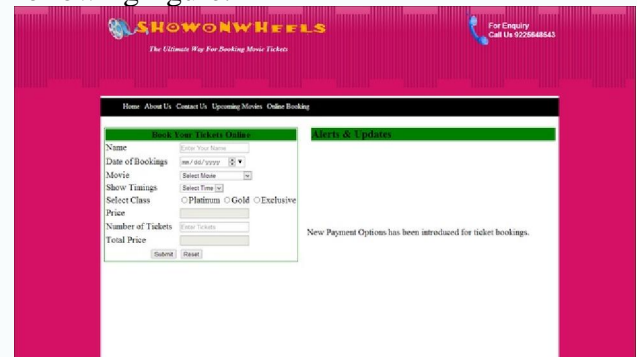
To view the form, you need to perform the following steps:

1. Open Google Chrome.
2. Type **D:\HTML\ShowOnWheels\mainframe.html** in the address bar.
3. Press the **Enter** key. The home page appears, as shown in the following figure.



The Home Page

4. Click the **Online Booking** link. The Online Booking Web page appears, displaying the form and alerts and updates, as shown in the following figure.



The Online Booking Web Page

5. Close the Web browser.



Activity 5.2: Manipulating the Components of a Web Page

Problem Statement

The Online Booking Web page has been created. Now, you want to incorporate the ticket booking functionality on the page according to the following guidelines:

- Q When the user selects the desired class, the price applicable for the class should be displayed in the Price field.
- Q When the user specifies the number of tickets, the Total Price field should get populated automatically on the basis of the formula, price * number of tickets.
- Q Apply a constraint to the Number of Tickets field in such a way that that the user can enter only numeric values in it. In addition, apply validation in such a way that the user is unable

- to book more than 20 tickets at a time.
- Q The Date of Bookings field should not accept the date less than the current date.
- Q The ticket booking confirmation should be displayed only if all the details have been entered by the user.

Prerequisite: You need to use the **ShowOnWheels** file that you have created in Activity 5.1 to perform this activity. Ask your faculty to provide you the same.

Solution

To incorporate the ticket booking functionality on the Online Booking Web page, you need to perform the following tasks:

1. Update the OnlineBooking.html file.
2. View the form.

Task 1: Updating the OnlineBooking.html File

To update the **OnlineBooking.html** file, you need to perform the following steps:

1. Open the **OnlineBooking.html** file.
2. Add the following code snippet after the <HEAD> tag:
<SCRIPT>
var date = new Date();
var month = date.getMonth()+1;
var day = date.getDate();
var year = date.getFullYear();
var output= month + '/' +day +
'/' + year;
The preceding code snippet retrieves the current day, month, and year.
3. Add the following code snippet after the var output= month + '/' +day + '/' + year; line of code:
function compareDate()
{
if(Date.parse
(document.form1.bookingdate.val
ue)<Date.parse(output)){
alert("You cannot select a
date less than the current
date");
}
}

The preceding code snippet displays a message to the user, if the user enters a date less than the current date.

4. Add the following code snippet after the alert("You cannot select a date less than the current date");}} line of code:
function checkNum()
{
x = event.charCode;
if ((x >= 65 && x <=90) || (x
>= 97 && x <=122))
{
alert("Enter Numeric Value");
document.form1.num.value='';
}

```
}
}
function total()
{
if(document.form1.num.value>20)
{
alert("You cannot book more
than 20 tickets at a time");
document.form1.num.value='';
}
else
document.form1.totalprice.value
=(document.form1.price.value)*
(document.form1.num.value);
}
```

The preceding code snippet displays a message to the user, if the user enters non numeric value or a value greater than 20 in the Number of Tickets field. Further, it calculates the total price for the tickets.

5. Add the following code snippet after the document.form1.totalprice.value=(document.form1.price.value)*(document.form1.num.value);} line of code:

```
function check()
{
for( i = 0; i <=
document.form1.RB.length; i++ )
{
if(document.form1.RB
[0].checked==true) {
document.form1.price.val
ue=100;
}else if(document.form1.RB
[1].checked==true) {
document.form1.price.val
ue=140;
}else if(document.form1.RB
[2].checked==true) {
document.form1.price.val
ue=200;
}
}
}
```

The preceding code snippet displays the price of the movie ticket on the basis of class selected by the user.

6. Add the following code snippet after the document.form1.price.value=200;}} line of code:
function sub()
{
if
((document.form1.username.value!
='')&&
(document.form1.num.value!='')
&&(Date.parse

```

(document.form1.bookingdate.val
ue)>Date.parse(output))&&
(document.form1.sel.value!=0)&&
(document.form1.timing.value!
=7))
{
    alert("Your tickets have been
booked.");
}
}
function validate()
{
    if
    ((document.form1.sel.value==0) |
    |
    (document.form1.timing.value==7
    ) || (Date.parse
    (document.form1.bookingdate.val
ue)<Date.parse(output)))
    {
        alert("Please select the
date, movie name, and movie
timings.");
        return false
    }
    else
    return true
}
</SCRIPT>

```

The preceding code validates the form.

7. Add the following code snippet after the <FORM name="form1" line of code:

```
onsubmit="return validate();"

```

The preceding code snippet calls the validate() function when a Web page is submitted.

8. Add the following code after the <INPUT type="date" id="bookingdate" line of code:

```
onchange="compareDate();"

```

The preceding code snippet calls the compareDate() function on the date field.

9. Add the following code snippet after each <INPUT type="Radio" name="RB" line of code:

```
onclick="check();"

```

The preceding code snippet adds the check() function to the radio button fields.

10. Add the following code snippet after the <INPUT type="text" name="num" placeholder="Enter Tickets" required line of code:

```
onchange="total();"

```

```
onkeypress="checkNum();"

```

The preceding code snippet adds the total() and onkeypress() functions to a text field.

11. Add the following code snippet after the <INPUT ID="submit" type="submit" line of code:

```
onclick="sub();"

```

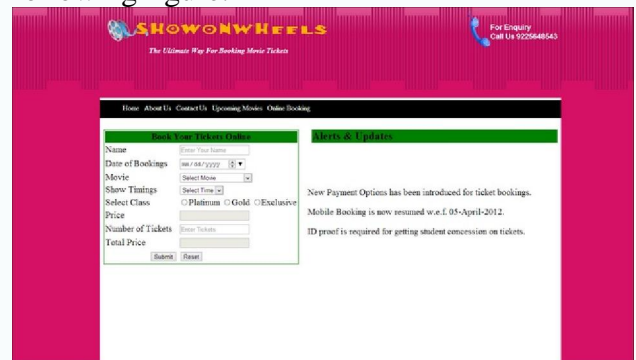
The preceding code snippet adds the sub() function to the submit button.

12. Save and close the **OnlineBooking.html** file.

Task 2: Viewing the Form

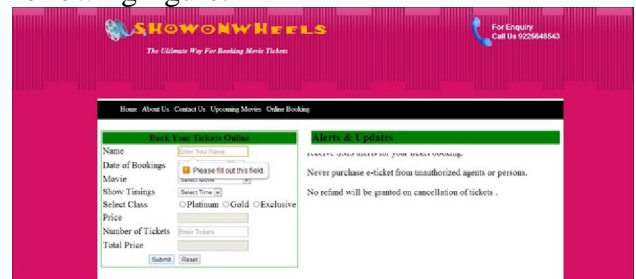
To view the form, you need to perform the following steps:

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 **Online Booking** link. The Online Booking Web Page appears, as shown in the following figure.



The Online Booking Web Page

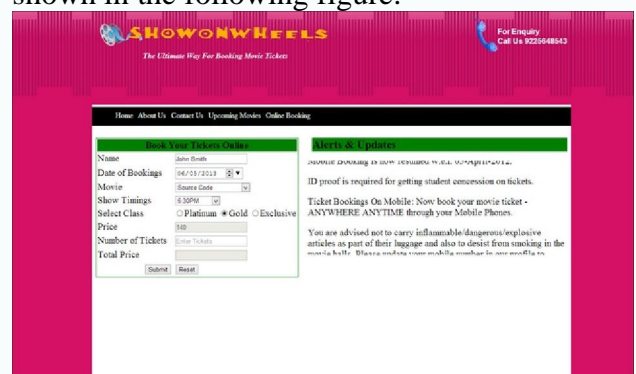
5. Click the **Submit** button. A message, **Please fill out this field**, appears, as shown in the following figure.



The Online Booking Web Page

Similarly, if you keep any of the fields empty, the form will not be submitted and the appropriate validation message appears.

6. Type **John Smith** in the **Name** field.
7. Select **06/05/2013** from the **Date of Bookings** field.
8. Select **Source Code** from the **Movie** field.
9. Select **5:30PM** from the **Show Timings** field.
10. Select the **Gold** option. The price for the gold class automatically appears in the **Price** field, as shown in the following figure.



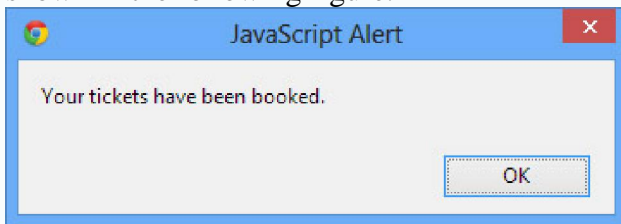
The Price of the Gold Class Displayed in the Price

Field

11. Type **3** in the **Number of Tickets** field. The total price for the tickets automatically appears in the **Total Price** field, as shown in the following figure.

The Total Price of the Tickets Displayed in the Total Price Field

12. Click the **Submit** button. An alert specifying that the tickets have been booked appears, as shown in the following figure.



An Alert

13. Close the Web browser.

Exercises

Exercise 1

Skylight University organizes short-term training programs for its existing students to enhance their technical and professional skills. For this, you need to create a Web page named Register displaying the details about the training sessions in the upcoming weeks. In addition, you need to add a link to the online registration form on the Register Web page.

However, to participate in such programs, the students need to enroll by filling the online registration form. For this, you need to create a form that contains the following fields:

- Q First Name
- Q Last Name
- Q Email ID
- Q Training Program
- Q Roll Number
- Q Contact Number

In addition, you need to add two buttons, Reset and Submit, on the form, as shown in the following figure.

The Online Registration Web Page

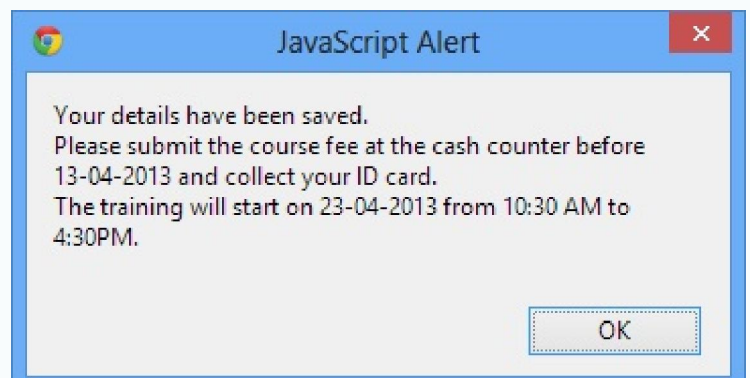
Prerequisite: To perform this exercise, you need to use the solution file created for Exercise 1 of Chapter 4. In addition, you need the **Register Me.png** image file and save this file in the Images folder. Ask your faculty to provide you the same.



Exercise 2

After creating the online registration form, you need to incorporate the following constraints on the form elements:

1. The fields, First Name and Last Name, should accept alphabets only.
2. The field, Email ID, should accept the email address in the format, characters@alphabets.alphabets.
3. The fields, Roll Number and Contact Number, should accept numeric values only.
4. The form should be submitted only if all the fields are filled.
5. On submitting the form, an alert message showing the details about the training program, such as start date, timings, and fee submission date, should appear, as shown in the following figure.



An Alert Message

In addition, the training details should vary from one training program to another.

How will you perform the preceding task?

Prerequisite: To perform this exercise, you need to use the solution file created for Exercise 1 of Chapter 5.




Exercise 3

John is creating a form to accept user inputs. He wants the functionalities listed in the left column to be implemented on his form. Match each functionality on the left with its appropriate tag or attribute on the right for implementation.

NIIT


| Functionalities | Tags or Attributes |
|---|-----------------------------------|
| Add a sample value to each text field | <input type="radio"/> placeholder |
| Add a specified expression for the password fields | <input type="radio"/> <TEXTAREA> |
| Create an area of six rows and six columns for inserting user comments | <input type="radio"/> <LABEL> |
| Create labels for the input fields | <input type="radio"/> <DATALIST> |
| Group the text fields in a box | <input type="radio"/> pattern |
| Show a list of predefined options for the address field whenever the user types any character | <input type="radio"/> FIELDSET |
| Create a drop-down list | <input type="radio"/> OUTPUT |
| Calculate the sum of two numbers | <input type="radio"/> SELECT |
| Ensure that no input field is left blank | <input type="radio"/> disabled |
| The date field should be un-clickable | <input type="radio"/> required |

 Exercise

Exercise 4

Select the correct values from the drop-down lists to display the message, Welcome!, whenever the user clicks on a button.

```
<!DOCTYPE HTML><HTML>
<BODY>
<P>Click the button.</P>
<BUTTON
  Select
=>myFunction()>Click Here</BUTTON>
</BODY>
<SCRIPT>
function myFunction()
{
  Select
  ("Welcome!");
}
</SCRIPT>
</HTML>
```

 Exercise

Chapter 6

Working with Graphics



Activity 6.1: Introducing Canvas

Problem Statement

The form for booking movie tickets has been created on the Online Booking Web page. Now, you want to display the movie ratings to the audience on that page. The movie ratings on the latest movies should be displayed in the form of bar graphs. The rating should be given on the scale of 1 - 5, where 1 stands for Below Average and 5 stands for Extraordinary.

How will you perform this task?

Prerequisite: To perform this activity, you need to use the **ShowOnWheels** file that you have created in Activity 5.2. In addition, you need the **RGraph.bar.js** and **RGraph.common.core.js** files and save them in the **ShowOnWheels** folder. Ask your faculty to provide you the same.

Solution

To display the movie ratings in the form of a bar graph, you need to perform the following tasks:

1. Update the **OnlineBooking.html** file.
2. View the movie ratings.

Task 1: Updating the OnlineBooking.html File

To update the **OnlineBooking.html** file, you need to perform the following steps:

1. Open the **OnlineBooking.html** file.
2. Add the following code snippet after the `<P>No refund will be granted on cancellation of tickets .</P></DIV>` line of code:
`

<H1> Movie Ratings</H1>
<CANVAS width="900" height="250" id="test" style="border:1px solid black"></CANVAS>`

The preceding code snippet creates a heading and a canvas on the OnlineBooking Web page along with its specified width and height.

3. Add the following code snippet after the `<CANVAS width="900" height="250" id="test" style="border:1px solid black"></CANVAS>` line of code:
`<SCRIPT type="text/javascript" charset="utf-8">
var bar = new RGraph.Bar('test',
[4,2.5,2.5,3,4,3.5]);
bar.Set('chart.colors',
['green']);`

```
bar.Set('chart.labels', ["Source  
Code" , "if Only" , "Angel" ,  
"Nightmare","Along Polly  
Came","A Walk to Remember" ]);  
bar.Draw();  
</SCRIPT>
```

The preceding code snippet creates a bar graph on the canvas.

4. Add the following code snippet after the `<HEAD>` tag:
`<SCRIPT type="text/javascript" src="RGraph.common.core.js"></SCRIPT>
<SCRIPT type="text/javascript" src="RGraph.bar.js"></SCRIPT>`
5. Save and Close the **OnlineBooking.html** page.

Task 2: Viewing the Movie Ratings

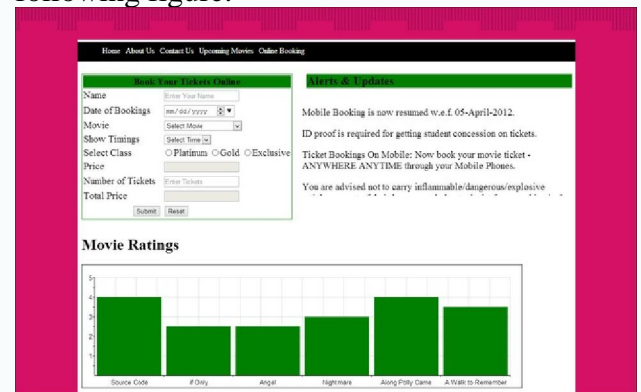
To view the movie ratings, you need to perform the following steps:

1. Open Google Chrome.
2. Type **D:\HTML\mainframe.html** in the address bar.
3. Press the **Enter** key. The Home Page appears, as shown in the following figure.



The Home Page

4. Click the **Online Booking** tab.
5. The movie ratings in the form of bar graph appear on the Web page, as shown in the following figure.



The Online Booking Page

6. Close the Web browser.



Activity 6.2: Creating a Game

Problem Statement

You work as a Web developer at GameMantra. The

organization has a website that enables users to play online games. You have been assigned a task to create a game. The game should contain two characters, dave and monster. The dave character should try to catch as many monsters as it can in 30 seconds. After 30 seconds, the game should be over. In addition, if the dave character goes out of the game boundary, he should be dead and the game should be over. How will you create this game?

Prerequisite: You need to use the **Images** folder that contains the images required to create the game. Ask your faculty to provide you the same. You need to save this folder at the **D:\HTML\Game** location.

Solution

To create the required game, you need to perform the following tasks:

1. Create the game.js file.
2. Create the home.html file.
3. Run the game.

Task 1: Creating the game.js File

To create the **game.js** file, you need to perform the following steps:

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

```
// Create the canvas
var canvas =
document.createElement
("canvas");
var ctx = canvas.getContext
("2d");
canvas.width = 512;
canvas.height = 480;
document.body.appendChild
(canvas);
```

```
// Background image
var bgReady = false;
var bgImage = new Image();
bgImage.onload = function () {
  bgReady = true;
};
bgImage.src = "images/
background.png";
```

The preceding code snippet creates a canvas of specified height and width. In addition, it adds a background image to the canvas.

3. Add the following code snippet after the `bgImage.src = "images/background.png";` line of code:
// Dave image
var daveReady = false;
var daveImage = new Image();
daveImage.onload = function () {
 daveReady = true;
};
daveImage.src = "images/
dave.png";

```
// Monster image
var monsterReady = false;
var monsterImage = new Image();
monsterImage.onload = function
() {
  monsterReady = true;
};
monsterImage.src = "images/
monster.png";
```

The preceding code snippet adds the images of the characters to the canvas.

4. Add the following code snippet after the `monsterImage.src = "images/monster.png";` line of code:

```
// Game objects
var dave = {
  speed: 256 // movement in
  pixels per second
};
var monster = {};
var monstersCaught = 0;
var timeLeft = 30;
// Handle keyboard controls
var keysDown = {};
addEventListener("keydown",
function (e) {
  keysDown[e.keyCode] = true;
}, false);
addEventListener("keyup",
function (e) {
  delete keysDown[e.keyCode];
}, false);
```

The preceding code snippet creates game objects, hero and monster, and calls the key up and key down event listeners.

5. Add the following code snippet after the `addEventListener("keyup", function (e) {delete keysDown [e.keyCode];}, false);` line of code:
// Reset the game when the player catches a monster
var reset = function () {
 dave.x = canvas.width / 2;
 dave.y = canvas.height / 2;
 // Throw the monster somewhere on the screen randomly
 monster.x = 32 + (Math.random() * (canvas.width - 64));
 monster.y = 32 + (Math.random() * (canvas.height - 64));
};

The preceding code snippet throws another monster anywhere on the screen when the monster is caught by the hero.

6. Add the following code snippet after the `monster.y = 32 + (Math.random()`


```

* (canvas.height - 64)); }; line of
code:
// Update game objects
var update = function (modifier)
{
//If the time is not over
if(timeLeft>0)
{
if(dave.y>0 && 38 in keysDown)
{ // Player holding up
dave.y -= dave.speed *
modifier;
}
else if(dave.y<=0 && 38 in
keysDown)
{
timeLeft=0;
daveImage.src = "images/
dead.png";
}
if(dave.y <448 && 40 in
keysDown) { // Player holding
down
dave.y += dave.speed *
modifier;
}
else if(dave.y >=448 && 40 in
keysDown) { // Player holding
down
timeLeft=0;
daveImage.src = "images/
dead.png";
}
if(dave.x>0 && 37 in keysDown)
{ // Player holding left
dave.x -= dave.speed *
modifier;
}
else if(dave.x<=0 && 37 in
keysDown)
{
timeLeft=0;
daveImage.src = "images/
dead.png";
}
if(dave.x<480 && 39 in
keysDown) { // Player holding
right
dave.x += dave.speed *
modifier;
}
else if(dave.x>=480 && 39 in
keysDown)
{
timeLeft=0;
daveImage.src = "images/
dead.png";
}
}

```

The preceding code snippet continues the game

if the time is not over.

7. Add the following code snippet after the `daveImage.src = "images/dead.png";` line of code:

```

// Are they touching?
if (
dave.x <= (monster.x + 32)
&& monster.x <= (dave.x +
32)
&& dave.y <= (monster.y +
32)
&& monster.y <= (dave.y +
32)
) {
++monstersCaught;
reset();
}
}
else
{
clearInterval(timerGameMain);
clearInterval(timerGame);
alert("Game Over\nYou have
caught " + monstersCaught + "
monsters in 30 seconds.");
}
};

```

The preceding code snippet specifies that if the dave character touches the monster character, then the monster is caught.

8. Add the following code snippet after the `alert("Game Over\nYou have caught " + monstersCaught + " monsters in 30 seconds.");` line of code:

```

// Draw
var render = function () {
if (bgReady) {
ctx.drawImage(bgImage, 0, 0);
}
if (daveReady) {
ctx.drawImage(daveImage,
dave.x, dave.y);
}
if (monsterReady) {
ctx.drawImage(monsterImage,
monster.x, monster.y);
}
// Score
ctx.fillStyle = "rgb(250, 250,
250)";
ctx.font = "24px Helvetica";
ctx.textAlign = "left";
ctx.textBaseline = "top";
document.getElementById
("infoDiv").innerHTML="<font
size=+2><b>Monster Caught:</b> "
+ monstersCaught + " <b>Time
Left:</b> " + timeLeft + " Sec</

```

```
font>";
};
```

The preceding code snippet shows the score of the game and the time left.

9. Add the following code snippet after the `document.getElementById("infoDiv").innerHTML` "`Monster Caught: " + monstersCaught + " Time Left: " + timeLeft + " Sec"`; }`;` line of code:

```
// The main game loop
var main = function () {
  var now = Date.now();
  var delta = now - then;
  update(delta / 1000);
  render();
  then = now;
};
//Time Restriction
var timeRestriction= function ()
{
  timeLeft--;
}
// Let's play this game!
reset();
var then = Date.now();
var timerGameMain=setInterval
(main, 1); // Execute as fast as possible
var timerGame=setInterval
(timeRestriction,1000);
```

The preceding code snippet adds the time restriction to the game and starts a new game.

10. Save the file with the name, **game.js**, at the **D:\HTML\Game** location.
11. Close the **game.js** file.

Task 2: Creating the home.html File

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

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

```
<!DOCTYPE HTML>
<HTML lang="en">
<HEAD>
  <META charset="utf-8">
  <TITLE>Simple Canvas Game</
TITLE>
</HEAD>
<BODY>
<DIV id="infoDiv"></DIV>
  <SCRIPT src="game.js"></
SCRIPT>
</BODY>
</HTML>
```

The preceding code snippet links the **game.js** file in the HTML file.

3. Save the file with the name, **home.html**, at the **D:\HTML\Game** location.

4. Close the **home.html** file.

Task 3: Running the Game

To run the game, you need to perform the following steps:

1. Type **D:\HTML\Game\home.html** in the address bar.
2. Press the **Enter** key. The game appears on a Web page, as shown in the following figure.

Monster Caught: 0 Time Left: 27 Sec



The Game

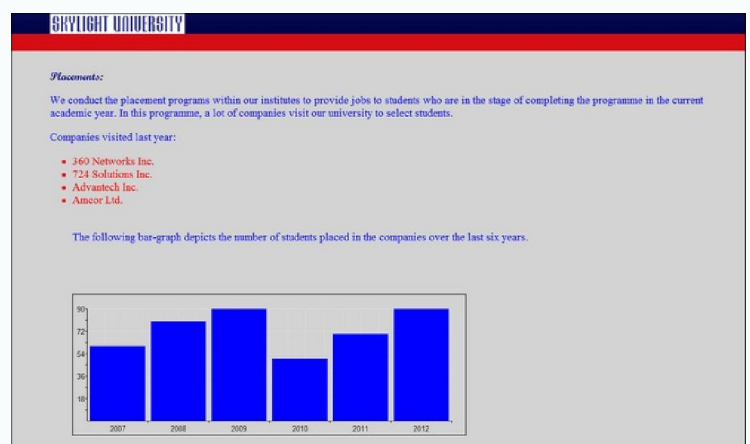
To move the dave character, you need to use the arrow keys. When the dave character touches the monster character, your points get increased. Ensure that the dave character does not touch the boundary as it will end your game.

3. Close the Web browser.

Exercises

Exercise 1

In the SkyLight University website, you need to create a Web page named Placements showing the name of the companies that are coming for students' placements. In addition, you need to display the student placement ratio over the last six years. For this, you need to create a bar graph, as shown in the following figure.



The Placements Web Page

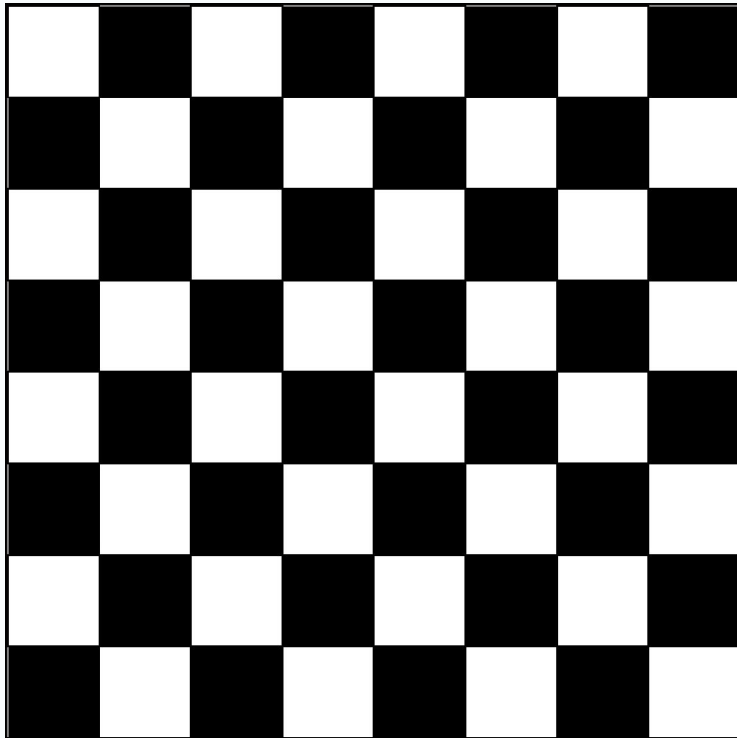
How will you perform the preceding task?

Prerequisite: To perform this exercise, you need to use the solution file created for Exercise 2 of Chapter 5. In addition, you need the **RGraph.bar.js** and **RGraph.common.core.js** files.



Exercise 2

Advin is a Web designer and has been given a task to create a chess board. A chess board is a combination of eight rows and eight columns. For this, he needs to create a matrix of 8*8 in canvas. In addition, he needs to apply alternate colors on the squares in the chess board, i.e. black and white, as shown in the following figure.



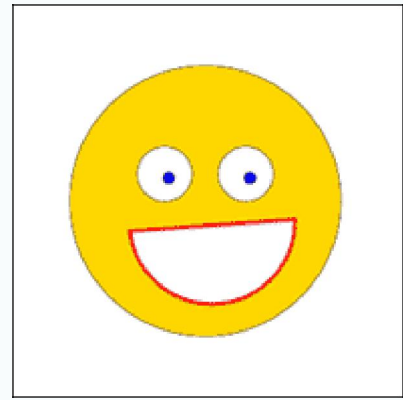
The Chess Board

Help Advin to perform this task?



Exercise 3

You have been assigned a task to create a smiley on canvas. The face of the smiley should be colored in yellow, with eye balls colored in blue, and mouth outline in red, as shown in the following figure.



The Smiley

How will you perform this task?



Exercise 4

Advin is a Web developer and has been assigned a task to rotate an image on canvas, as shown in the following figure.



The Rotating Car

Help Advin to complete this task.

Prerequisite: To perform this exercise, you need to use the image file, **car.gif**.



Exercise 5

John is assigned the task to create a rectangle starting from the co-ordinate points (20,40) with a width of 120 and a height of 160 on canvas. Also, the rectangle should be filled with color. Select the option from the drop-down list to create the rectangle.

```
<CANVAS ID="myCanvas" width="600" height="600" style="border:1px solid black"> </CANVAS>
<SCRIPT>
var c=document.getElementById("myCanvas");
var ctx=c.getContext("2d");
ctx.

Select


</SCRIPT>
```

RESET

SUBMIT

Exercise

Exercise 6

Match the code snippet on the left with its respective output on the right.

Code

```
var c=document.getElementById("myCanvas");
var ctx=c.getContext("2d");
ctx.fillStyle="red";
ctx.fillRect(10,10,100,100);
ctx.translate(50,25);
ctx.fillStyle="blue";
ctx.fillRect(10,10,100,100);

var c=document.getElementById("myCanvas");
var ctx=c.getContext("2d");
ctx.fillStyle="red";
ctx.fillRect(20,20,100,100);
ctx.translate(0,25);
ctx.fillStyle="blue";
ctx.fillRect(10,10,100,100);

var c=document.getElementById("myCanvas");
var ctx=c.getContext("2d");
ctx.fillStyle="red";
ctx.fillRect(40,40,100,100);
ctx.translate(60,10);
ctx.fillStyle="blue";
ctx.fillRect(10,10,100,100);
```

Output

RESET

SUBMIT

Exercise

Chapter 7

Adding Visual Effects to Web Pages



Activity 7.1: Exploring jQuery

Problem Statement

Create a Web page, Offers, in the ShowOnWheels website displaying the information about bank offers and lucky draws. The information should be visible only when the user moves the mouse pointer on the Bank Offers and Lucky Draw links.

Prerequisite: To perform this activity, you need to use the solution of **ShowOnWheels** that you have created in Activity 6.1. In addition, you need the **jquery-1.8.3.js** file and save it in the **ShowOnWheels** folder. Ask your faculty to provide you the same.

Solution

To display the information about bank offers and lucky draws on mouse move, you need to perform the following tasks:

1. Create the Offers.html file.
2. Update the nav.html file.
3. View the Offers.html file.

Task 1: Creating the Offers.html File

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

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

```
<!DOCTYPE HTML>
<HTML>
<HEAD>
</HEAD>
<BODY>
<A ID="bank" href="">Bank
Offers</A>
<A ID="pro" href="">Lucky Draw</
A>
<DIV ID="coolMenu" style="
width: 500px; height: 400px;
padding-top: 0px; border:4px
solid orange; background-
color:black;">
<TABLE>
<TR>
<TH><B>Bank Offers</B></TH>
</TR>
<TR><TD>Use ACA Bank Credit Card
and Avail Buy 1 Get 1 Free
Offer</TD></TR>
<TR><TD>Use ACE Bank Debit Card
and Get 5% Off on Tickets</TD></
TR>
```

```
<TR><TD>Use FHDC Bank Credit
Card and Get 10% Off on
Tickets</TD></TR>
<TR><TD>Use AQ Bank Credit Card
and Avail Buy 2 Get 1 Free
Offer</TD></TR>
</TABLE>
</DIV>
<DIV ID="prooffers" style="
width: 500px; height: 400px;
padding-top: 0px;
align:right;border:4px solid
orange; background-
color:black;">
<TABLE>
<TR>
<TH><B>Lucky Draw</B></TH>
</TR>
<TR><TD>Book Tickets Online And
Get a Chance to Grab Dinner
Vouchers at Aura</TD></TR>
<TR><TD>Register on our Website
Now and Get a Chance to Grab
Free Tickets</TD></TR>
<TR><TD>Avail 20% Discounts on
tickets at Marcus Cinemas</TD></
TR>
</TABLE>
</DIV>
</BODY>
</HTML>
```

The preceding code snippet creates two links, Bank Offers and Lucky Draw.

3. Add the following code snippet after the

```
<HEAD> tag:
<STYLE>
a{
color:orange;
font-size:20px;
}
th{
color: orange;
font-size:30px;}
tr{
color:orange;
font-size:20px;
}
</STYLE>
```

The preceding code snippet applies styles to the links and tables.

4. Add the following code snippet after the </STYLE> tag:

```
<SCRIPT type="text/javascript"
src="jquery-1.8.3.js"></SCRIPT>
<SCRIPT type="text/javascript">
$(document).ready(function(){
$("#coolMenu").hide();
$("#prooffers").hide();
$("#bank").mouseenter(function()
```

```

{
$( "#coolMenu" ).show(500);
});
$( "#bank" ).mouseleave(function()
{
$( "#coolMenu" ).hide(500);
});
$( "#pro" ).mouseenter(function(){
$( "#prooffers" ).show(500);
});
$( "#pro" ).mouseleave(function(){
$( "#prooffers" ).hide(500);
});
});
</SCRIPT>

```

The preceding code snippet applies visual effects to the <DIV> tag using jQuery.

5. Save the file with the name, **Offers.html**, in the **ShowOnWheels** folder.
6. Close the **Offers.html** file.

Task 2: Updating the nav.html File

To update the **nav.html** file, you need to perform the following steps:

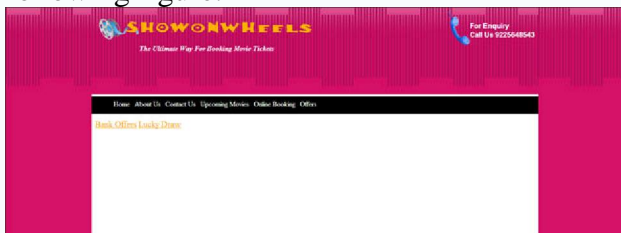
1. Open the **nav.html** file.
2. Add the following code snippet after the Online Booking | line of code:
 Offers |
 The preceding code snippet creates a link for the Offers Web page.

3. Save and close the **nav.html** file.

Task 3: Viewing the Offers.html File

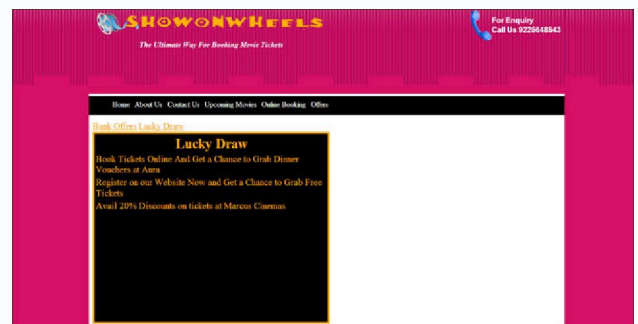
To view the **Offers.html** file, you need to perform the following steps:

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 **Offers** link on the home page. The **Offers** Web page appears, as shown in the following figure.



The Offers Web Page

5. Move the mouse over the **Lucky Draw** link on the **Offers** Web page. The information about lucky draw appears, as shown in the following figure.



The Information About Lucky Draw

Similarly, move the mouse over the **Bank Offers** link to view the information about the bank offers.

6. Close the Web browser.



Activity 7.2: Creating an Image Gallery

Problem Statement

To enhance the browsing experience of the users, the management of ShowOnWheels website wants to display the image gallery of the movies. Therefore, they approach a Web developer to implement the required functionality on the website. After analyzing the requirement, the Web developer decides to create an image gallery by using the galleria plugin. Help the Web developer to create the image gallery.

Prerequisite: To perform this activity, you need to use the **ShowOnWheels** file that you have created in Activity 7.1. In addition, you need the **galleria-1.2.8.zip** file and save it in the **ShowOnWheels** folder. Moreover, you need the following image files:

- Q movieimage1_bee.jpg
- Q movieimage1_bee1.jpg
- Q movieimage2_alvin.jpg
- Q movieimage2_alvin1.jpg
- Q movieimage3_amy.jpg
- Q movieimage4_bolt.jpg
- Q movieimage4_bolt1.jpg
- Q movieimage5_wolf.jpg

Ask your faculty to provide you the same.

Solution

To create an image gallery, you need to perform the following tasks:

1. Copy the galleria plugin.
2. Copy the jquery-1.8.3.js file.
3. Copy the images to the contentFiles folder.
4. Update the home.html file.
5. Update the homestylesheet.css file.
6. View the mainframe.html file.

Task 1: Copying the galleria Plugin

To copy the galleria plugin, you need to perform the following steps:

1. Create a folder named **ImageGallery** in the **ShowOnWheels** folder.
2. Copy the **galleria-1.2.8.zip** file in the

ImageGallery folder.

3. Unzip the **galleria-1.2.8.zip** file.

Task 2: Copying the jquery-1.8.3.js File

To copy the **jquery-1.8.3.js** file, you need to perform the following steps:

1. Create a folder named **jQueryS** in the **ImageGallery** folder.
2. Copy the **jquery-1.8.3.js** file in the **jQueryS** folder.

Task 3: Copying the Images to the contentFiles Folder

To copy the images to the **contentFiles** folder, you need to perform the following steps:

1. Create a folder named **contentFiles** in the **ImageGallery** folder.
2. Copy all the image files provides as input to the **contentFiles** folder.

Task 4: Updating the home.html File

To update the **home.html** file, you need to perform the following steps:

1. Open the **home.html** file.
2. Add the following code snippet
<TITLE>Home Page of
ShowOnWheels</TITLE> line of code:
<SCRIPT src=" ImageGallery/
jQueryS/jquery-1.8.3.js "></
SCRIPT>
<SCRIPT src="ImageGallery/
galleria-1.2.8/galleria/
galleria-1.2.8.js"></SCRIPT>
The preceding code snippet adds the JavaScript
files in the html file.
3. Add the following code snippet after the Your
browser does not support this
audio format.</VIDEO></DIV> line of
code:
<SCRIPT> Galleria.loadTheme
('ImageGallery/galleria-
1.2.8/galleria/themes/classic/
galleria.classic.min.js');
\$("#gallery").galleria({
 width: 950,
 height: 400
});
</SCRIPT>

4. Delete the following code:
<IMG src="images
\movieimage1_bee.png"
width="185" height="200">
<IMG src="images
\movieimage2_alvin.jpg"
width="185" height="200">
<IMG src="images
\movieimage3_amy.jpg"
width="185" height="200">
<IMG src="images
\movieimage4_bolt.jpg"
width="185" height="200">

```
<IMG src="images  
\movieimage5_wolf.jpg"  
width="185" height="200">
```

5. Add the code after the <H4>Currently,
showing...</H4> line of code:
<DIV id="gallery">
<IMG src="ImageGallery/
contentFiles/
movieimage1_bee.jpg">
<IMG src="ImageGallery/
contentFiles/
movieimage1_bee1.jpg">
<IMG src="ImageGallery/
contentFiles/
movieimage2_alvin.jpg">
<IMG src="ImageGallery/
contentFiles/
movieimage2_alvin1.jpg">
<IMG src="ImageGallery/
contentFiles/
movieimage3_amy.jpg">
<IMG src="ImageGallery/
contentFiles/
movieimage4_bolt.jpg">
<IMG src="ImageGallery/
contentFiles/
movieimage4_bolt1.jpg">
<IMG src="ImageGallery/
contentFiles/
movieimage5_wolf.jpg">
</DIV>
6. Save and close the **home.html** file.

Task 5: Updating the homestylesheet.css File

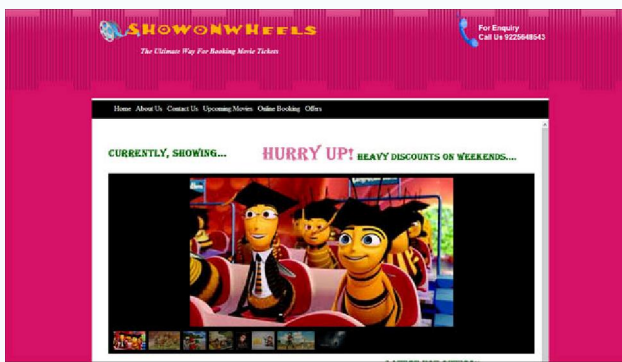
To update the **homestylesheet.css** file, you need to perform the following steps:

1. Open the **homestylesheet.css** file.
2. Replace the top: 300px; line of code with
the following code snippet:
top: 500px;
3. Replace the top: 350px; line of code with
the following code snippet:
top: 560px;
4. Save the **homestylesheet.css** file.

Task 6: Viewing the mainframe.html File

To view the **mainframe.html** file, you need 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
displaying the image gallery, as shown in the
following figure.



The Home Page

4. Close the Web Browser.

Exercises

Exercise 1

Create a link, Admission, on the SkyLight University website to display the admission calendar for the courses, Social Psychology, Botany, and Communications. The calendar appears when the user moves the mouse over the Admission Calendar link, as shown in the following figure.



The Calendar

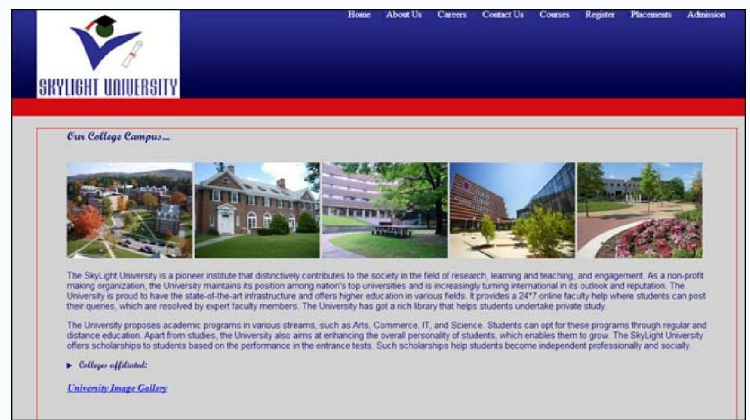
How will you perform this task?

Prerequisite: To perform this exercise, you need to use the solution file created for Exercise 1 of Chapter 6. In addition, you need the **jquery-1.8.3.js** file.



Exercise 2

To enhance the browsing experience of the users in the SkyLight University website, the management of the university wants that the website should display the slideshow of the college campus images. When a user clicks the link, University Image Gallery, the slideshow starts, as shown in the following figure.



The University Image Gallery Link

The management approaches you to implement the required functionality on the website. After analyzing the requirement, you decide to create an image gallery by using the **colorbox** plugin.

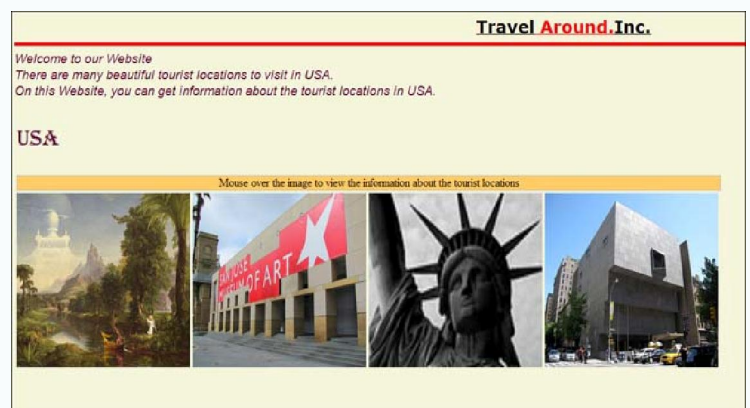
Prerequisite: To perform this exercise, you need to use the solution file created for Exercise 1 of Chapter 7. In addition, you need the **colorbox.zip** folder and the following image files:

- q Campusimage1.png
- q Campusimage2.png
- q Campusimage3.jpg
- q Campusimage4.jpg
- q Campusimage5.png



Exercise 3

You have been assigned a task to create a Web page for the USASiteSeeing website. The Web page should display the images of tourist locations in USA. In addition, you need to apply rollover effect on the images in such a way that the description of locations should appear on the image mouse over, as shown in the following figure.



The Travel Around, Inc. Web Page

How will you perform this task?

Prerequisite: To perform this exercise, you need to use the **jquery-1.8.3js** file and the following image files:

- q nationalgallery.jpg
- q NationalGOA_ex.png
- q sanjose.jpg

- q sanjose_ex.png
- q statueofliberty.jpg
- q StatueofLiberty_ex.png
- q WhitneyMuseum_ex.jpg
- q WhitneyMuseumofAmericanArt.jpg



Exercise 4

Match the jQuery function on the left with its respective description on the right.

Function		Description
prepend()	<input type="radio"/>	Enables to insert the content before the selected elements.
after()	<input checked="" type="radio"/>	Enables to remove the selected element including all the text and nested elements inside it.
before()	<input type="radio"/>	Enables to remove all the text and nested elements of selected elements. However, this method does not remove the element.
remove()	<input type="radio"/>	Enables to insert the content after the selected elements.
empty()	<input type="radio"/>	Enables to insert content before the inner content of selected elements.

RESET

SUBMIT

Exercise

Exercise 5

Select the correct values from the drop-down lists to fade out the <DIV> tag with the specified opacity.

```

<!DOCTYPE HTML>
<HTML>
<HEAD>
<SCRIPT src="jquery-1.8.3.js"></SCRIPT>
<SCRIPT>
$(document). 
(function(){
  $("button").click(function(){
    $("#div1") 
    ("slow",0.15);
  });
});
</SCRIPT>
</HEAD>
<BODY>
<BUTTON name="button">Click to view</BUTTON>
<DIV ID="div1" style="width:100px;height:100px;background-color:green;">
</DIV>
</BODY>
</HTML>

```

RESET

SUBMIT

Exercise

Chapter 8

Introducing Geolocation and Offline Support for Data



Activity 8.1: Implementing Offline Support

Problem Statement

You have been assigned a task to create the Web page, Register, in the ShowOnWheels website displaying two forms, Create an Account and Sign In. The Create an Account form contains the Name, Password, and Confirm Password fields. The Sign In form contains the Name and Password fields. You need to implement such functionality in the Create an Account form that upon filling the form, the details of the user should not be lost, if the browser is closed. In addition, when the user enters the name in the Name field in the Sign In form, the value in the Password field should be fetched automatically.

How will you perform this task?

Prerequisite: To perform this activity, you need to use the solution of **ShowOnWheels** that you have created in Activity 7.2. Ask your faculty to provide you the same.

Solution

To store the users' details locally, you need to perform the following tasks:

1. Create the login.html file.
2. Update the nav.html file.
3. View the login.html file.

Task 1: Creating the login.html File

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

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

```
<HTML>
<HEAD>
<LINK type="text/css"
rel="stylesheet"
href="ExternalStylesheet
\homestylesheet.css" />
<STYLE type="text/css">
th{
color:orangered;
}
#form2{
position:absolute;
top:50px;
left:400px;
width:380px;
height:200px;
border:3px solid orangered;
```

```
margin-left:190px;
}
#form1{
width:380px;
height:200px;
border:3px solid orangered;
margin-left:60px;
margin-top:50px;
}
button{
margin-left:80px;
color:white;
background-color:orangered;
}
</STYLE>
</HEAD>
<BODY>
<FORM id="form1" name="Sign Up"
onsubmit="checkPassword()">
<TABLE>
<TR>
<TH colspan="2"><B><I>Create an
Account</I></B></TH>
</TR><TR>
<TD>Name:</TD><TD> <Input
type="text" name="username"
onkeyup="checkName();"
required></TD>
</TR>
<TR>
<TD>Password:</TD><TD> <Input
type="password" name="pass1"
required></TD>
</TR>
<TR>
<TD>Confirm Password:</TD><TD>
<Input type="password"
name="pass2" required></TD>
</TR>
<TR><TD><BR><Button
type="Submit">Register</TD></TR>
</TABLE>
<FORM id="form2" name="Sign In"
onsubmit="onSubmit();">
<TABLE>
<TR>
<TH colspan="2"><B><I>Sign In</
I></B></TH>
</TR><TR>
<TD>Name:</TD><TD> <Input
type="text" name="username1"
onkeyup="checkName();"
onchange="login();" required></
TD>
</TR>
<TR>
<TD>Password:</TD><TD> <Input
type="password" name="pass3"
```

```

required ></TD>
</TR>
<TR><TD><BR><Button
type="Submit">Sign In</TD></
TR></TABLE>
</FORM>
</BODY></HTML>

```

The preceding code snippet creates two forms named Sign Up and Sign In and defines the styles to be applied on the form elements.

3. Add the following code snippet after the

```

<HEAD> tag:
<SCRIPT>
function checkName()
{
    if (!
form1.username.value.match(/^[a-
zA-Z]+$/)) &&
form1.username.value != "")
    {
        form1.username.val
ue=" ";
        form1.username.foc
us();
        alert("Please
enter only alphabets in text");
    }
}
function checkPassword()
{
    if(form1.pass1.value!
=form1.pass2.value)
    {
        alert("Passwords entered
do not match");
    }
    else
    if (typeof (Storage) !==
"undefined") {
        localStorage.userid
= form1.username.value;
        localStorage.passwr
d = form1.pass1.value;
        alert("Registered");
    }
}
function login()
{
    if (typeof (Storage) !
== "undefined")
    {
        if
(form2.username1.value==
localStorage.userid) {
            form2.pass3.value=lo
calStorage.passwr
d;
        }
    }
}

```

```

function onSubmit()
{
    if((form2.username1.value!
=="")&&
(form2.pass3.value==localStorage
.passwr
d))
        alert("Signed In");
    else
        alert("Password do not
match");
}
</SCRIPT>

```

The preceding code snippet creates functions that implement local storage on the forms.

4. Save the file with the name **login.html** in the **ShowOnWheels** folder.
5. Close the **login.html** file.

Task 2: Updating the nav.html File

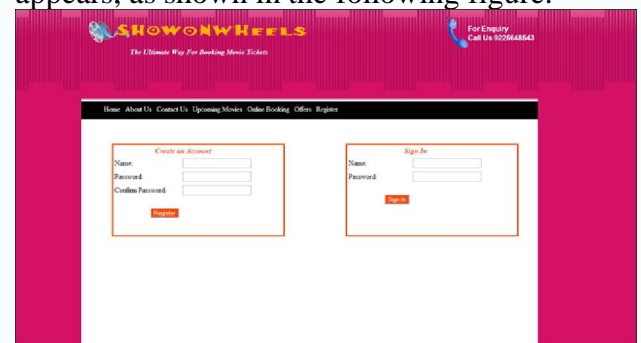
To update the **nav.html** file, you need to perform the following steps:

1. Open the **nav.html** file.
2. Add the following code snippet after the `Offers` | line of code:
`Register` |
The preceding code snippet creates a link for the Register Web Page on the home page.
3. Save and close the **nav.html** file.

Task 3: Viewing the login.html File

To view the **login.html** file, you need 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 **Register** link. The **Register** Web page appears, as shown in the following figure.



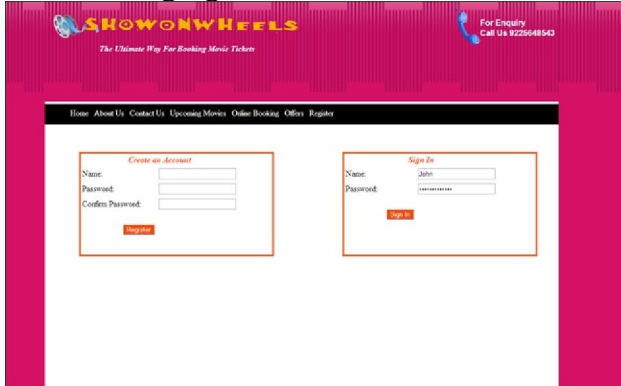
The Register Web Page

5. Type **John** in the **Name** field in the **Create an Account** form.
6. Type **Password@1234** in the **Password** field.
7. Type **Password@1234** in the **Confirm Password** field.
8. Click the **Register** button. An alert message appears, as shown in the following figure:



An Alert Message

9. Click the **Ok** button.
10. Type **John** in the **Name** field of the **Sign In** form.
11. Press the **Tab** key. The password automatically gets filled in the **Password** field, as shown in the following figure.



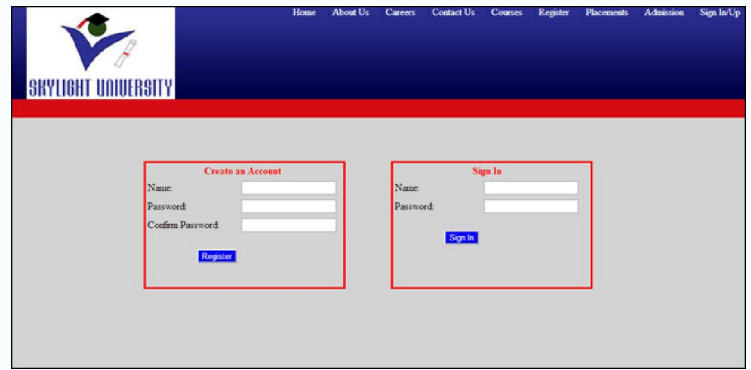
The Create an Account and Sign In Forms

12. Close the Web browser.
Now, again open the **Register** Web page and type **John** in the **Name** field of the **Sign In** form. The password automatically gets filled in the **Password** field. This shows that even if the browser is closed, the users' details are not lost.

Exercises

Exercise 1

You have been assigned a task to create a Web page, Sign In/Up, in the SkyLight University website. The Sign In/Up Web page contains two forms, Create an Account and Sign In. The Sign Up form contains the Name, Password, and Confirm Password fields. The Create an Account form contains the Name and Password fields. You need to implement functionality in the Create an Account form in such a way that the users' details are not stored locally if the browser is closed. However, if the browser is not closed, the users' details should be stored locally and the password gets automatically filled in the Password field of the Sign In form when the user enters the name. The Sign In/Up Web page is shown in the following figure.



The Sign In/Up Web Page

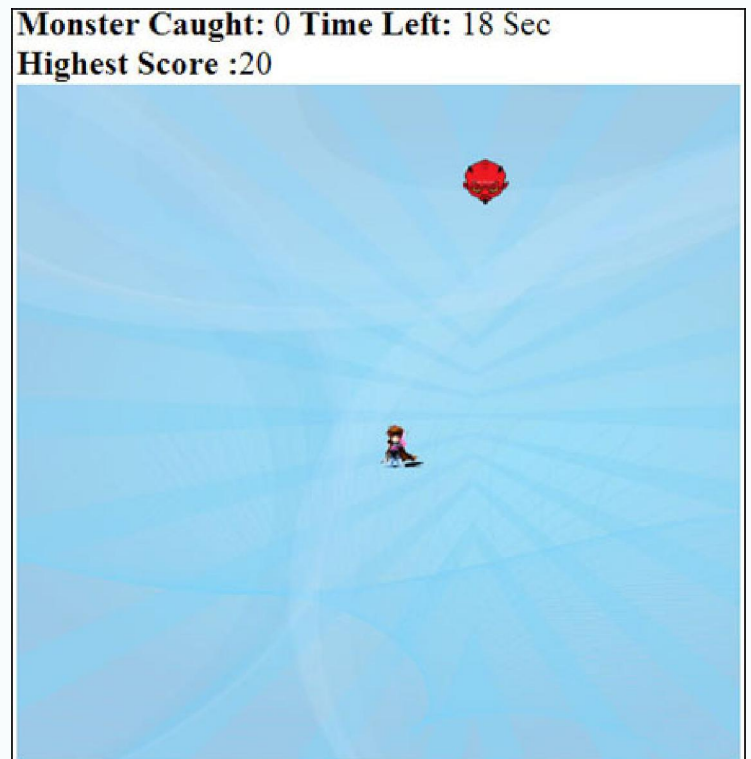
How will you perform this task?

Prerequisite: To perform this exercise, you need to use the solution file of Exercise 7.2.



Exercise 2

You have been assigned a task to display the highest score of the game. This implies that even if the user closes the browser, the highest score should get stored locally and should be displayed when the user next time plays the game, as shown in the following figure.



The Game Screen Displaying the Highest Score

How will you perform this task?

Prerequisite: To perform this exercise, you need to use the solution of Activity 6.2.



