# **Objectives**

- ♦ In this session, you will learn to:
  - Apply transitions, animations, and transformations
  - Create tables



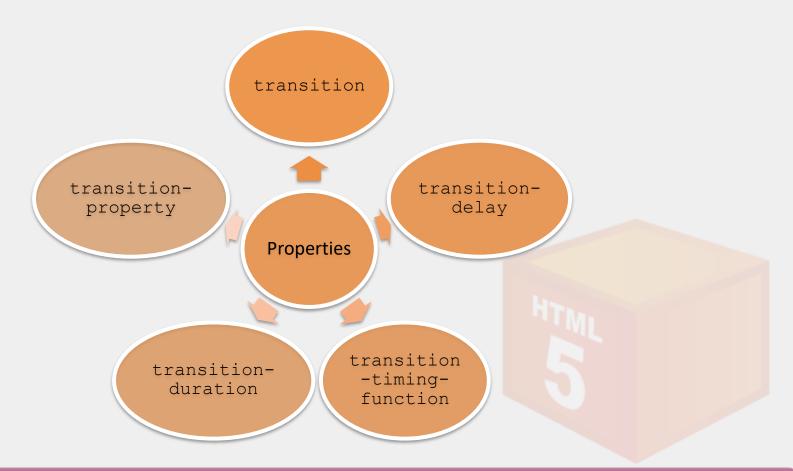
# **Applying Transitions, Animations, and Transformations**

- ♦ CSS:
  - Provides an easy way to apply animation effects on HTML elements.
  - Has a set of predefined properties and functions for applying animations.



### **Applying Transitions**

- The CSS transitions:
  - Provide a way to moderately change the HTML element from one position to another.
  - Can be applied using the following properties:



### **Applying Animations**

- A CSS animation:
  - Provides a way to moderately change the HTML elements.
  - Can be controlled for iterations, alterations, and states.
  - Is defined by specifying the animation styles within an animation rule.



# **HTML5 Programming**

# **Applying Animations (Contd.)**

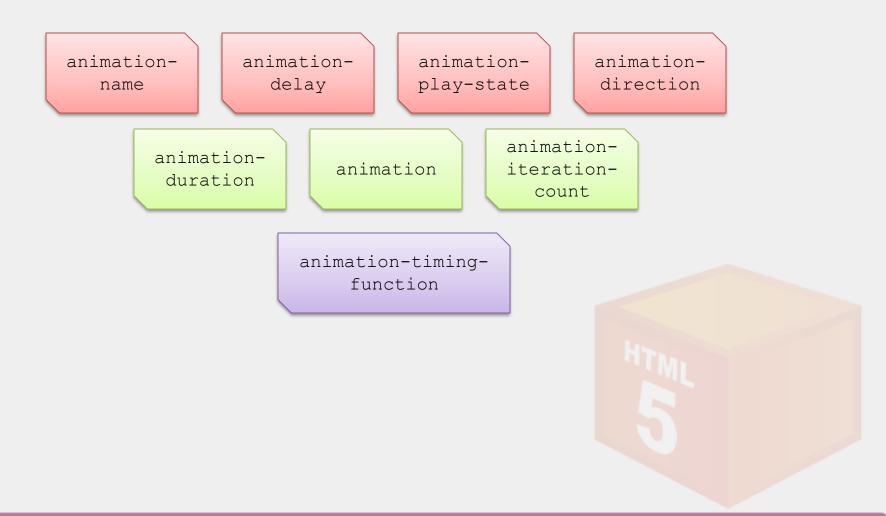
- An animation rule:
  - Includes a set of properties and methods used to create an animation.
  - Is created by using the following syntax:

```
@keyframe keyframename
{
    from {property: value;}
    to{property: value;}
}
```



**Applying Animations (Contd.)** 

An animation is connected with the HTML elements by using the following properties:



**Applying Animations (Contd.)** 

The following embedded Notepad file contains the code to create an animation rule and bind it with an HTML element:





# **Applying Transformations**

- The CSS transformations:
  - Are used to modify the appearance of HTML elements.
  - Are used to rotate, scale, and skew HTML elements.
  - Can be applied by using the following syntax:

```
transform: none| transform-functions;
```

- Are divided in the following categories:
  - 2D transforms
  - 3D transforms



# **Applying Transformations (Contd.)**

- 2D transforms:
  - Are used to apply various transformations, such as rotations or translations on the HTML elements.
  - Are applied by using the following methods:

- scale
- matrix
- skew
- rotate
- translate

# **Applying Transformations (Contd.)**

3D transforms can also be used to format the HTML elements by using the following methods:

- rotateX()
  - Rotates the element at a given degree around the x-axis.
- rotateY()
  - Rotates the element at a given degree around the y-axis.

#### **Just a Minute**

- Which one of the following 2D functions is used to increase or decrease the size of an HTML element?
  - translate()
  - rotate()
  - skew()
  - scale()



Just a Minute (Contd.)

- ♦ Solution:
  - scale()



#### **Demo: 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.



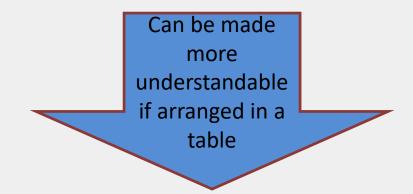
**Demo: Applying Transitions, Animations, and Transformations (Contd.)** 

- 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.



# **Creating Tables**

- A Web page of LearnMySQL website displays the content on data types in the following format.
  - Char(M) is a Fixed-Length string between 0 to 255 characters.
  - Varchar(M) is a Variable-Length string between 0 to 255 characters.



Name	Length	Range
Char(M)	Fixed	0-255
Varchar(M)	Variable	0-255

### **Identifying the Basic Structure of a Table**

- - Are used to display information, arranged in the form of rows and columns.
  - Are created using the <TABLE> tag.
  - Can have a border.
  - Are divided into the following logical sections:
    - Body
    - Header
    - Footer



### Identifying the Basic Structure of a Table (Contd.)

- The table body is created using the <TBODY> tag and contains the data arranged in rows.
- Rows are created using the <TR> and </TR> container tags and comprise one or more columns.
- ♦ Columns are created using the <TD> and </TD> container tags.
- Multiple rows and columns can be merged into one cell using the rowspan and colspan attributes, respectively.
- The following embedded Notepad file contains the code to create a table in HTML:





### Identifying the Basic Structure of a Table (Contd.)

- The table header is a row or collection of rows that contains the headings for the columns of the table.
- ♦ The row or rows comprising the header content of a table can be grouped using the <THEAD> tag.
- The headings for the table columns in the header row are created using the <TH> tag.
- A summary for the table rows can be provided in the footer section of a table.
- ♦ The footer is created using the <TFOOT> tag that is specified after the <THEAD> tag.
- ♦ The table can be given a title using the <CAPTION> tag.
- The following embedded Notepad file contains the code to create a table with a caption, header, and footer in HTML:



Create Table

Use the animation, HTML\_03\_Creating\_Enhancing\_Tables.swf, to understand the concept of tables.

### **Just a Minute**

- Which one of the following tags specifies the content of the columns of a table?
  - ◆ <TD>
  - ♦ <CAPTION>
  - ◆ <TBODY>
  - ◆ <TH>



Just a Minute (Contd.)

- ♦ Solution:
  - <TD>



#### **Summary**

- In this session, you learned that:
  - The CSS transitions provide a way to moderately change the HTML element from one position to another.
  - To specify the animation styles, you need to create certain animation rules known as @keyframe, which is a rule, where the animation is created.
  - CSS transformations have the following categories:
    - 2D Transforms
    - 3D Transforms
  - Tables are used in Web pages to enhance the readability by presenting information in a structured way.
  - You can create a table in HTML by using the <TABLE> tag.
  - The rows of the body of a table can be grouped by using the <TBODY> tag.
  - For adding rows to a table, the <TR> tag is used.
  - For adding columns to a row, the <TD> tag is used.
  - To extend or merge the cells up to the desired columns, you can use the colspan attribute. Similarly, to merge the rows, you can use the rowspan attribute.
  - The table header is a row that contains the headings for the columns of the table.
  - To create the headings for the table columns, you can use the <TH> tag.
  - For creating a table title, the <CAPTION> tag is used.