CS101 Introduction to Computing

Lecture 9

HTML Lists & Tables

(Web Development Lecture 3)

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Today is our 3rd Web Dev lecture
During our 2nd lecture on Web dev …

1. We learnt to develop our own Web pages in HTML

2. We learnt about some of the tags used in HTML pages
   -
, <P>, </P>, <B>, <TITLE>, </TITLE>, <H1>, </H1>
   - <HTML></HTML>, <HEAD></HEAD>, <BODY></BODY>
   - <A HREF = *"action"* > *label* </A>, action=http:// or mailto:

3. We also learnt about how to upload our Web pages to a Web server so that it becomes visible on the Internet.

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Today's Lecture

- We will extend our Web pages by adding a few more tags

- Specifically, we will learn about various types of lists that can be added to a Web page

- And also, about tables

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But first …

A few comments on the general structure of HTML tags

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Single Tags

<tagName>

Example:

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Single Tags with Atributes

<tagName attributes>

Example: <HR width="50%">

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Paired Tags

<tagName> … *</tagName>*

Example: <H1> … </H1>

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Paired Tags with Attributes

<tagName attributes > … *</tagName>*

Example: <H1 align="center"> … </H1>

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Altaf Khan

Adjunct Lecturer in Computer Science
Virtual University
Building 1, 3rd Floor, Aiwan-e-Iqbal, Lahore
+92 42 555 1212
altaf@vu.edu.pk

I teach the Introduction to Computing course.

Altaf Khan

Adjunct Lecturer in Computer Science

[Virtual University](#)

Building 1, 3rd Floor, Aiwan-e-Iqbal, Lahore

+92 42 555 1212

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I teach the [Introduction to Computing](#) course.

My favorite PC games are:

- SimCity
- Quake
- Bridge

My favorite sports are:

Indoor	Outdoor
Squash	Cricket

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List

My favorite sports are:

Indoor	Outdoor
Squash	Cricket

Done   My Computer

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[Virtual University](#)
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My favorite sports are:

Indoor	Outdoor
Squash	Cricket

Table

```
<HTML>

<HEAD>
<TITLE>Altaf Khan's Home Page</TITLE>
</HEAD>

<BODY>

<H1>Altaf Khan</H1>

<P><B>Adjunct Lecturer in Computer Science</B><BR>
<A HREF="http://www.vu.edu.pk/">Virtual University</A><BR>
Building 1, 3rd Floor, Aiwan-e-Iqbal, Lahore<BR>
+92 42 555 1212<BR>
<A HREF="mailto:cs101@vu.edu.pk">Email: Altaf Khan</A><BR></P>

<P>I teach the <A HREF="http://www.vu.edu.pk/cs101/">Introduction to
Computing</A> course. </P>

</BODY>

</HTML>
```
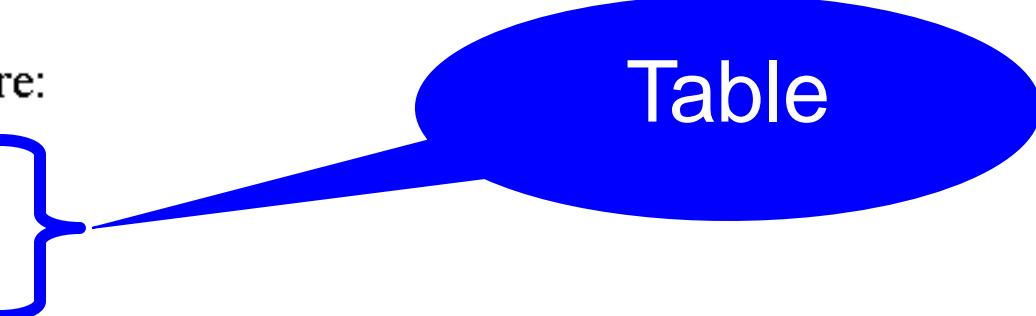
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```html
<HTML>

<HEAD>
<TITLE>Altaf Khan's Home Page</TITLE>
</HEAD>

<BODY>

<H1>Altaf Khan</H1>

<P><B>Adjunct Lecturer in Computer Science</B><BR>
<A HREF="http://www.vu.edu.pk/">Virtual University</A><BR>
Building 1, 3rd Floor, Aiwan-e-Iqbal, Lahore<BR>
+92 42 555 1212<BR>
<A HREF="mailto:cs101@vu.edu.pk">Email: Altaf Khan</A><BR></P>

<P>I teach the <A HREF="http://www.vu.edu.pk/cs101/">Introduction to Computing</A> course. </P>

</BODY>

</HTML>
```

The additional code for the list and table goes here

```html
<P>My favorite PC games are:</P>

<UL>
  <LI>SimCity</LI>
  <LI>Quake</LI>
  <LI>Bridge</LI>
</UL>

<P>My favorite sports are:</P>

<TABLE border = "1" >
  <TR>
    <TH>Indoor</TH>
    <TH>Outdoor</TH>
  </TR>
 <TR>
    <TD>Squash</TD>
    <TD>Cricket</TD>
  </TR>
</TABLE>
```

Additional code

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```
<P>My favorite PC games are:</P>

<UL>
   <LI>SimCity</LI>
   <LI>Quake</LI>
   <LI>Bridge</LI>
</UL>

<P>My favorite sports are:</P>

<TABLE border = "1" >
   <TR>
     <TH>Indoor</TH>
     <TH>Outdoor</TH>
   </TR>
  <TR>
     <TD>Squash</TD>
     <TD>Cricket</TD>
   </TR>
</TABLE>
```

Code for the list

Code for the table

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HTML Code	Browser Display

`<UL>`
 	
  `<LI>`SimCity`</LI>`
 	
  `<LI>`Quake`</LI>`
 	
  `<LI>`Bridge`</LI>`
 	
`</UL>`
	• SimCity
	
	• Quake
	
	• Bridge

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<UL>	Un-ordered List
<LI>	Line Item

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The default "bullet" for these lists is a "disc"

That, however, can be changed to a "circle" or a "square" with the help of the type attribute

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HTML Code	Browser Display

`<UL type = "circle">`
  `<LI>`SimCity`</LI>`
  `<LI>`Quake`</LI>`
  `<LI>`Bridge`</LI>`
`</UL>`
	○ SimCity
	○ Quake
	○ Bridge

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type = "square"

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Q: What happens if I start a new list without closing the original one?

```
<UL>
    <LI>SimCity</LI>
    <LI>Quake II</LI>

    <UL>
        <LI>SimCity 3000</LI>
        <LI>Quake III</LI>
    </UL>

    <LI>Bridge</LI>
</UL>
```

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Browser Display

1. Different bullets
2. Additional tab

- SimCity
- Quake II
  - SimCity 3000
  - Quake III
- Bridge

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Such structures, i.e., those in which another starts before the first list is finished, are called Nested Lists

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Types of Lists

In addition to un-ordered lists, HTML supports two other types

– Ordered Lists

– Definition List

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Ordered List

<OL>
　<LI>SimCity</LI>
　<LI>Quake</LI>
　<LI>Bridge</LI>
</OL>

OL instead of UL

Browser Display

1. SimCity
2. Quake
3. Bridge

Numbers instead of discs, circles or

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Ordered List

```
<OL type = "a">
  <LI>SimCity</LI>
  <LI>Quake</LI>
  <LI>Bridge</LI>
</OL>
```

Browser Display

a. SimCity

b. Quake

c. Bridge

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Ordered List Types

type	Result
"A"	A, B, C, …
"a"	a, b, c, …
"I"	I, II, III, IV, …
"i"	i, ii, iii, iv, …
"1"	1, 2, 3, …

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Q: How would one start an ordered list with something other than 1

Browser Display

25. SimCity
26. Quake
27. Bridge

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Ordered List	Browser Display

`<OL start = "25">`
  `<LI>`SimCity`</LI>`
  `<LI>`Quake`</LI>`
  `<LI>`Bridge`</LI>`
`</OL>`
	25. SimCity
	26. Quake
	27. Bridge

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Definition List

```
<DL>
  <DT>SimCity</DT>
    <DD>A great
    simulation game in
    which one build
    cities </DD>
  <DT>Quake</DT>
    <DD> One of the
    best of the shoot-
    em-up genre
    </DD>
</DL>
```

Browser Display

SimCity

Term

A great simulation game in which one build cities

Quake

Definition

One of the best of the shoot-em-up genre

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<DL>	Definition List
<DT>	Term
<DD>	Definition

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- Ordered lists as well as definition lists can be nested just like the un-ordered lists

- Can any type of list be nested into any other type?

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- Lists are one way of presenting data in a an ordered or formal fashion

- Tables provide another - more customizable - way of displaying ordered information on Web pages

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Browser Display

Indoor	Outdoor
Squash	Cricket

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HTML Code

```
<TABLE border = "1" >
  <TR>
    <TH>Indoor</TH>
    <TH>Outdoor</TH>
  </TR>
  <TR>
    <TD>Squash</TD>
    <TD>Cricket</TD>
  </TR>
</TABLE>
```

Browser Display

Indoor	**Outdoor**
Squash	Cricket

<TABLE>	Table (made up of rows)
<TR>	Row (made up of data cells)
<TH>	Heading Data Cell (Can contain paragraphs, images, lists, forms, tables)
<TD>	Data Cell (Can contain paragraphs, images, lists, forms, tables)

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\<TABLE> Attributes

- BORDER
  - Determines the thickness of the table border
  - Example: \<TABLE BORDER = "2">

- CELLPADING
  - Determines the distance between the border of a cell and the contents of the cell
  - Example: \<TABLE CELLPADDING = "3">

- CELLSPACING
  - Determines the empty spacing between the borders of two adjacent cells
  - Example: \<TABLE CELLSPACING = "1">

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HTML Code

```
<TABLE border = "1" >
  <TR>
    <TH>Indoor</TH>
    <TH>Outdoor</TH>
  </TR>
  <TR>
    <TD>Squash</TD>
    <TD>Cricket</TD>
  </TR>
</TABLE>
```

Browser Display

Indoor	Outdoor
Squash	Cricket

HTML Code

```
<TABLE>
 <TR>
  <TH>Indoor</TH>
  <TH>Outdoor</TH>
 </TR>
 <TR>
  <TD>Squash</TD>
  <TD>Cricket</TD>
 </TR>
</TABLE>
```

Browser Display

Indoor	**Outdoor**
Squash	Cricket

<TABLE>,<TR>,<TH>,<TD> Attributes

- ALIGN
  - Possible values: Center, Left, Right
  - Example: <TH ALIGN = "center">

- BGCOLOR
  - Example: <TD BGCOLOR = "red">

- WIDTH
  - Example: <TR WIDTH = "40%">

- HEIGHT
  - Example: <TABLE HEIGHT = "200">

50% of the screen width

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<TR> Attributes

- VLAIGN

  - Determines the vertical alignment of the contents of all of the cells in a particular row

  - Possible values: Top, Middle, Bottom

  - Example: <TR VALIGN = "bottom">

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<TH> & <TD> Attributes

- NOWRAP
  - Extend the width of a cell, if necessary, to fit the contents of the cell in a single line
  - Example: <TD NOWRAP>

- COLSPAN
  - No. of rows the current cell should extend itself downward
  - Example: <TD COLSPAN = "2">

- ROWSPAN
  - The number of columns the current cell should extend itself
  - Example: <TD ROWSPAN = "5">

- VALIGN
  - Same as that for <TR>

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HTML Code

```
<TABLE border="1" >
  <TR>
    <TH colspan="2">
      Indoor Outdoor
    </TH>
  </TR>
  <TR>
    <TD>Squash</TD>
    <TD>Cricket</TD>
  </TR>
</TABLE>
```

Browser Display

Indoor Outdoor	
Squash	Cricket

Year	Quarter	Expenses		Income	
		Quetta	Dubai	Quetta	Dubai
2001	1	1,900	8,650	9,000	7,780
	2	2,230	8,650	8,500	8,670
	3	4,000	8,650	9,900	9,870
	4	2,200	8,650	9,800	9,900
2002	1	7,780	8,650	7,780	9,000
	2	8,670	8,650	8,670	8,500
	3	9,870	8,650	9,870	9,900
	4	9,900	8,650	9,900	9,800

HTML Code

```
<TABLE border = "1" >
 <CAPTION>
   My favorite sports
 </CAPTION>
  <TR>
    <TD>Squash</TD>
    <TD>Cricket</TD>
  </TR>
</TABLE>
```

Browser Display

My favorite sports

Squash	Cricket

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HTML Code

```
<TABLE border = "1" >
<CAPTION>
  My favorite sports
</CAPTION>
 <TR>
   <TD>Squash</TD>
   <TD>Cricket</TD>
 </TR>
</TABLE>
```

Browser Display

My favorite sports

| Squash | Cricket |

Must be placed immediately after the<TABLE> tag

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Useful URL

The Table Sampler

http://hissa.nist.gov/~black/tableQuikRef.html

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In Today's Lecture …

- We learnt how to extend our Web pages by adding a few more tags

- Specifically, we discussed various types of lists that can be added to a Web page – un-ordered, ordered and definition lists

- And also, about tables: about various tags used in a table and their associated attributes

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Next Web Dev Lecture: Interactive Forms

- We will try to understand the utility of forms on Web pages

- We will find out about the various components that are used in a form

- We will become able to build a simple, interactive form

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