

COMP 4021
Internet Computing

DIVs and Image Maps

Div Example

- A div is a 'box' area which can contain anything
- The resulting display is shown on the next slide

```
<h2>Three div, with no exact positioning</h2>
```

```
<div id="pretty_title1" style="font-size:56pt; background-color:yellow">  
COMP303 layer  
</div>
```

```
<div id="pretty_title2" style="font-size:56pt; background-color:gray">  
COMP303 layer  
</div>
```

```
<div id="pretty_title3" style="font-size:56pt; background-color:yellow">  
COMP303 layer  
</div>
```

Three div, with no exact positioning

COMP303 layer

COMP303 layer

COMP303 layer

Done

Internet

HTML Div

- Force the div to appear at any position on the page
 - Use *top* and *left* parameters (not x, y)

```
<div id="pretty_title" style= "position:absolute;  
left:200; top:100; background-color:yellow;  
font-size:56pt; ">
```

COMP303 layer

```
</div>
```

Web Page Coordinate System

Top left hand
corner of web
page is (0,0)

Browser window

DIV

This is a DIV

Bottom right hand
corner of web page
is (width-1, height-1)

Div Style Parameters

- ❑ `position:absolute;` - position of div specified by left and top
- ❑ `left:200;` - sets the left hand side position of the div
- ❑ `top:100;` - sets the top position of the div
- ❑ `background-color` - sets the background colour of div
- ❑ `font-size:56pt;` - tells the browser what size the text will be
- ❑ width and height
- ❑ Z index (display order) => large z, closer to viewer
- ❑ visible/ hidden
- ❑ clipping (change the visible boundaries of the div)
- ❑ x, y offset (change the x, y position within the div)
- ❑ Plus many more parameters (check div spec)

Div and Span

- ❑ 'div' and 'span' are useful because they don't have any default visual display parameters
- ❑ div is additionally useful because it can have any position
- ❑ 'div' is typically for a rectangular area of text/objects, i.e.

```
<div style="background-color: yellow;  
  font-weight: bold; color: black;">  
  <p>Here's a paragraph</p>  
  <p>Here is a second paragraph</p>  
</div>
```

- ❑ 'span' is for a few "inline" words:

```
<p>This part is <span style="color:blue; background-  
  color:red;">special</span> </p>
```

- Or do not change the style but just assign ID to a text segment so that you can manipulate it later (e.g., by JavaScript)

div introduces a line break but span does not

DIV vs Table

□ Table:

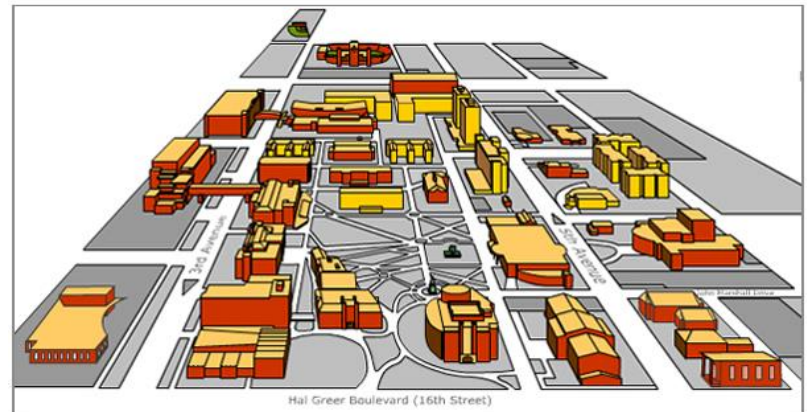
- Convenient for aligning contents on a grid
- Very flexible: anything can be put inside a table cell, nesting of tables, variable number of cells, etc
- Inefficient, need to load entire table before anything inside can be displayed
- It is restricted as a table
- Non-**responsive** design: Cannot wrap a row or a table when window is resized

□ Div:

- Flexible placement: display a triangular table of triangular cells?
- More initial work: define your own styles for “cell”, “row”, “header row” and “table”, etc.
- See link on course homepage to convert table into DIV

Using a Map for an 'Index'

- Click on a building, JavaScript shows information about how to get there



- Click on a face, JavaScript tells the browser to go to the home page of that person

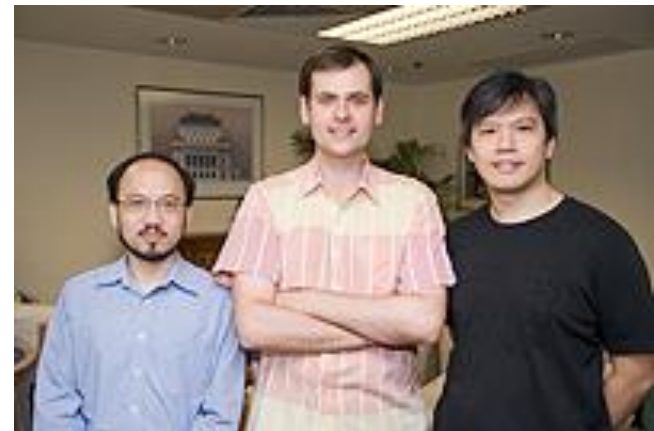


Image Maps

- ❑ `<map>` and `<area>` define the area within which a click will call a JavaScript function or jump a link

You can run any JavaScript function or simply go to another page here!

```
<map name="website_overview" >
  <area shape="rect" coords="40,40,139,159"
    href="javascript:alert('Rectangle!')" />
  <area shape="circle" coords="230,70,50" ... />
  <area shape="poly" coords="370,50,370,170,260,170"... />
</map>

```

- ❑ A challenge is to align the coordinates of the areas with the displayed objects in `overview.png`

- Image map example:
click on different parts of the map to trigger JavaScript to jump to other web pages
- How to do this?

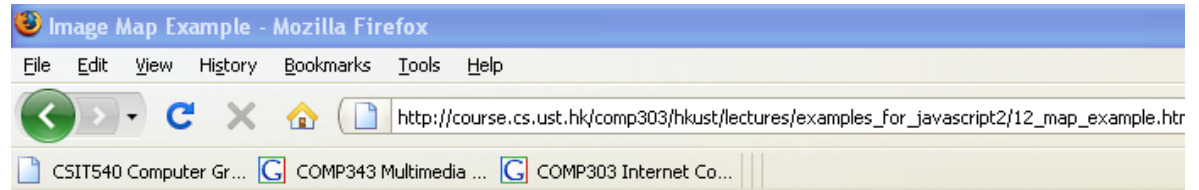
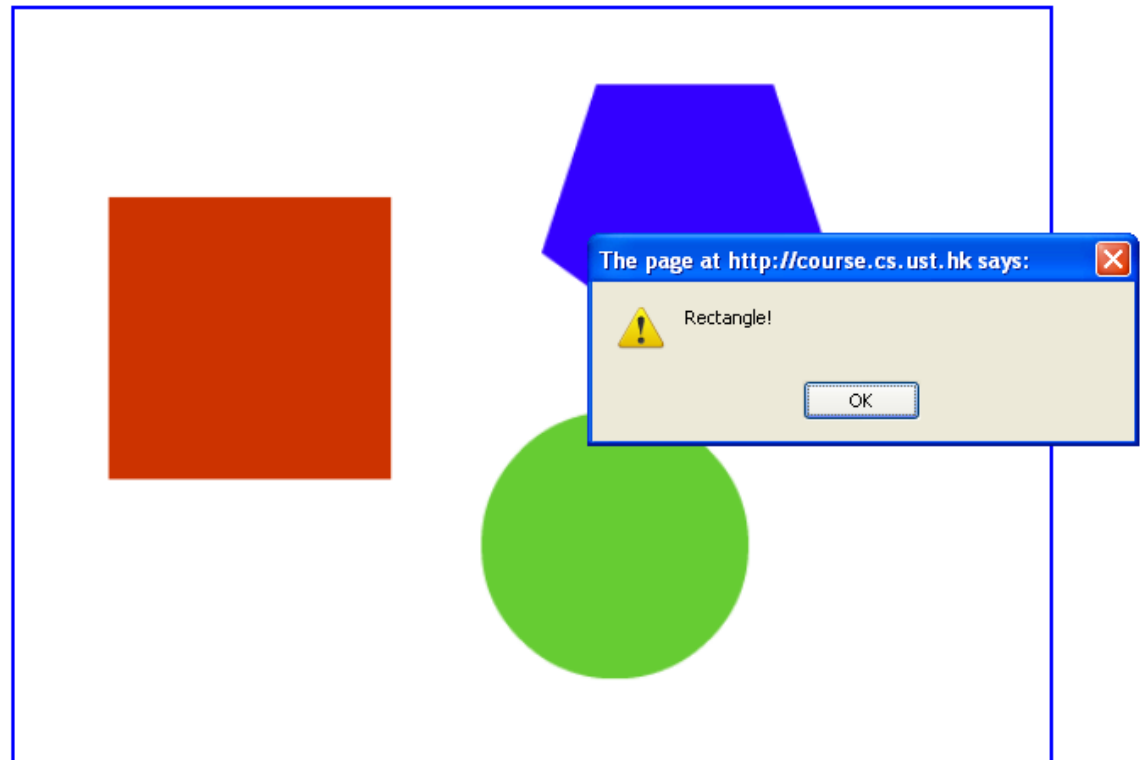


Image Map Example



Take Home Message

- ❑ DIV is useful (and recommended) for controlling the display of a part of a webpage
 - Put them anywhere on a webpage
 - Show or hide them using JavaScript
 - Change their content, color, etc., etc., etc.
- ❑ More efficient than <table>
- ❑ How to achieve “image map” function using DIV?