

# CMPT 165

## Unit 2 – Markup & Unit 3 – CSS

May 25<sup>th</sup>, 2015

# Today's Agenda

- Revisit some tags
- More details on absolute vs. relative URL
- Styling with CSS

# <a> tag

**<a>**: anchor tag creates a hyperlink to a resource

Examples:

```
<p>This is a link to <a href="http://www.sfu.ca">SFU</a></p>
```

```
<p><a href="www.sfu.ca"></a></p>
```

content of anchors can be anything

Required attribute:

**href**: hyper reference

Optional attributes:

**target**: where the target page will be displayed

**type**: what type of resource **href** points to

Check here: <http://www.w3schools.com/tags/>



## Hello students

Lorem ipsum dolor sit an  
neglegentur pro ne. Et vi  
habemus oportere corrup  
legere legimus id, discere  
Pri an agam assueverit.

This is a link to [SFU](#)

# Attribute specification

- Assign attributes to elements:

`name_of_attribute="value"`

`<a href="http://www.sfu.ca">SFU</a>`

``

- Always close the value with double quotes ("value")!

# What's wrong?

```
<a href="www.sfu.ca">here</a>
```

```
<a href="http://www.sfu.ca">here</a>
```

(Any text in value of href without the protocol or "/" is assumed to be relative URL...  
risk referencing to wrong file with same name)

```

```

```

```

```

```

```

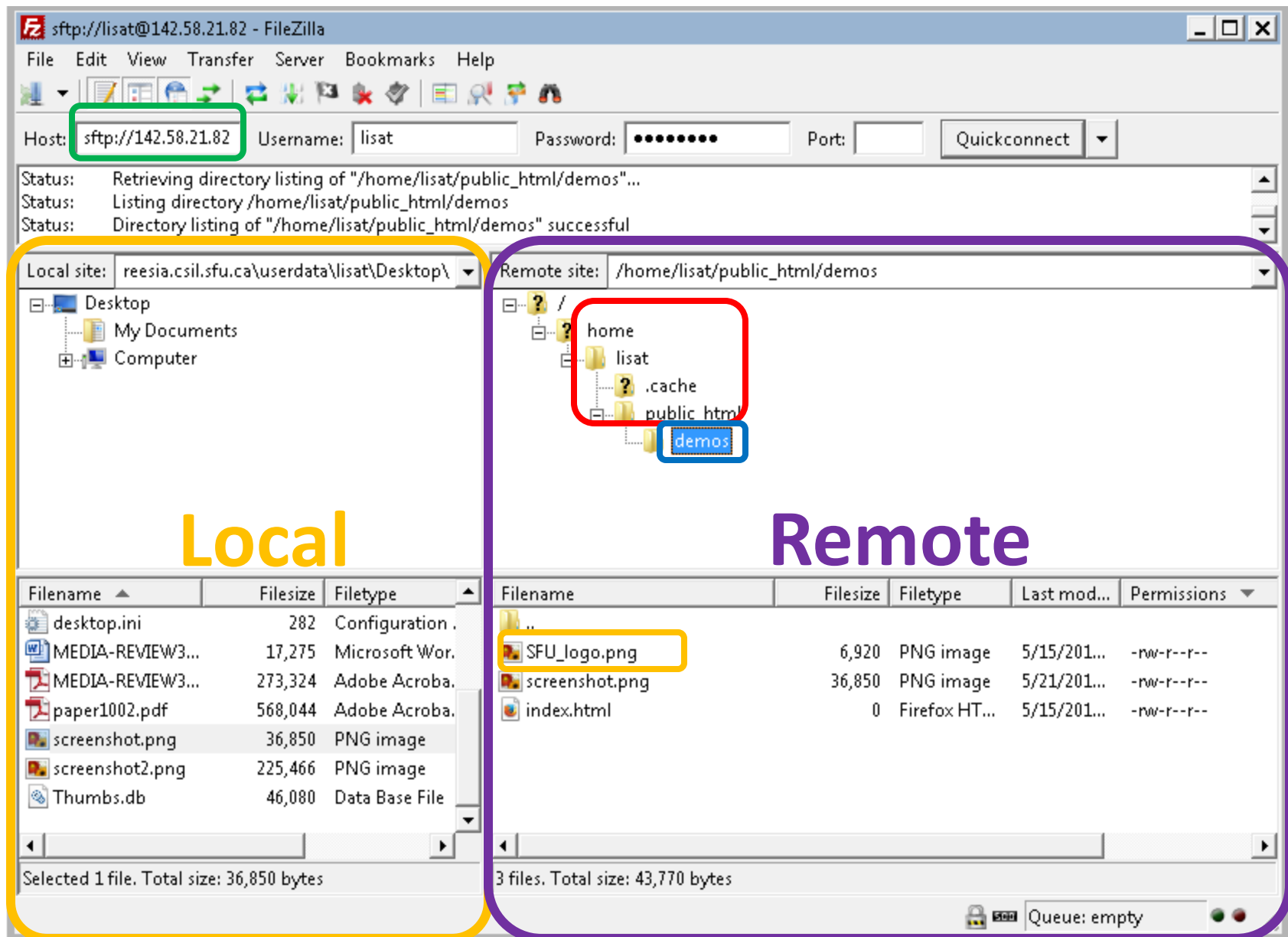
```



# Today's Agenda

- Revisit some tags
- More details on absolute vs. relative URL
- Styling with CSS

[http://cmpt165.cs.sfu.ca/~lisat/demos/SFU\\_logo.png](http://cmpt165.cs.sfu.ca/~lisat/demos/SFU_logo.png)



# Absolute vs. Relative URL

SFU\_logo.png + index.html both in same “demos” folder

index.html:

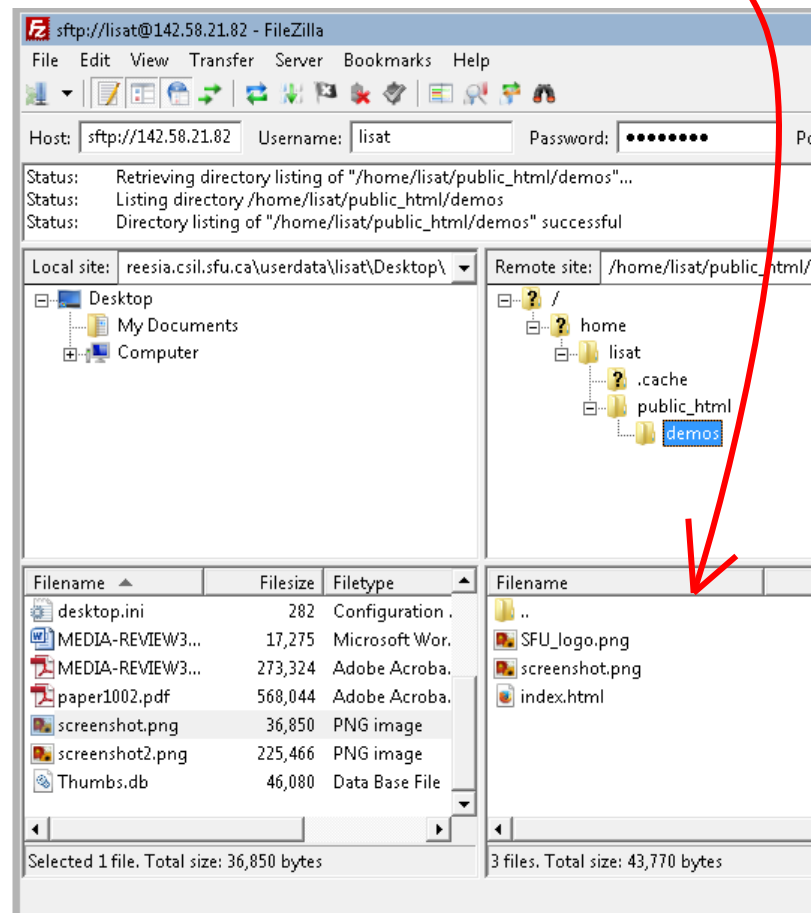
```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
  <head><title>Title</title></head>

  <body>

    <h1>Heading</h1>
    <p>
      
    </p>

    <p></p>

  </body>
</html>
```





# Absolute vs. Relative URL

SFU\_logo.png + index.html not in same folder

Q: what is the relative URL for the SFU\_logo.png file?

index.html:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
  <head><title>Title</title></head>

  <body>

    <h1>Heading</h1>
    <p>
      
    </p>

    <p></p>

  </body>
</html>
```

Answer: use ".."

("parent" directory)

public\_html/SFU\_logo.png

public\_html/demos/index.html



"parent" directory

# Absolute vs. Relative URL

SFU\_logo.png + index.html not in same folder

Q: what is the relative URL for the SFU\_logo.png file?

index.html:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
  <head><title>Title</title></head>

  <body>

    <h1>Heading</h1>
    <p>
      
    </p>

    <p></p>

  </body>

</html>
```

public\_html/SFU\_logo.png

public\_html/d1/d2/index.html



“grandparent” directory?

# Absolute vs. Relative URL

SFU\_logo.png now moved to another subfolder test

Q: what is the relative URL for the SFU\_logo.png file?

index.html:

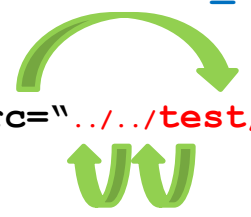
```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
  <head><title>Title</title></head>

  <body>

    <h1>Heading</h1>
    <p>
      
    </p>
    <p></p>

  </body>

</html>
```



public\_html/test/SFU\_logo.png

public\_html/d1/d2/index.html



“grandparent” directory?

# Unit2: highlights

- Tags examined so far:
  - List `<ol><ul><li><dl><dt><dd>`
  - Image `<img>`
  - Anchor `<a>`
  - <http://www.w3schools.com/tags/>
- Key concepts:
  - Attributes
  - Relative vs. absolute URL

# Good Webpage (Design)

## CONTENT

- Messages to your audience

→ You provide. Check grammar 😊

## INTERACTION

- Provide responses to audience

→ Web-programming (Python)

## STRUCTURE

- Give meaning to each element
- “Meta” data (meta=about)

→ Markup, i.e. XHTML, HTML5

## STYLE

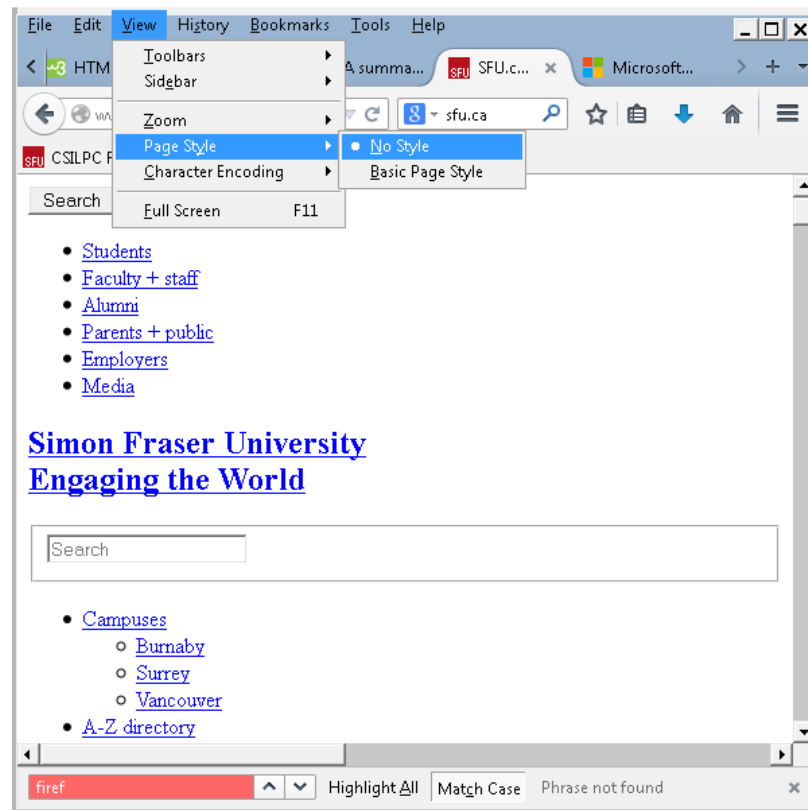
- Describe visual properties of each element

→ Cascading Style Sheets (CSS)



# Affect of styling

- What do sites look like without style?
- To turn on/off:



# Cascading Style Sheets (CSS)

A sheet defining styles ... ☺

Why “cascading”?

- Answered later

Why CSS?

- You should know ☺
- E.g. Imagine your webpage contains 2 paragraphs and you want all to have “center alignment”

**`<p align="center">`**

# <style> tag

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
<html>
  <head>
    <title>Title</title>
  </head>
  <body>
    <h1>Heading</h1>
    <p align="center">This is Paragraph1.</p>
    <p align="center">This is Paragraph2.</p>
  </body>
</html>
```



```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title>Title</title>
    <style type="text/css">
      p {
        text-align: center;
      }
    </style>
  </head>
  <body>
    <h1>Heading</h1>
    <p>This is a paragraph.</p>
    <p>This is another paragraph.</p>
  </body>
</html>
```



Demo



# <style> tag

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title>Title</title>
    <style type="text/css" media="all" >
      p { Required attribute Optional attribute
        text-align: center;
      }

      h1 {
        text-align: center;
        color: red;
      }
    </style>
  </head>
  <body>
    <h1>Heading</h1>
    <p>This is a paragraph.</p>
    <p>This is another paragraph.</p>
  </body>
</html>
```

# CSS syntax

Selector: HTML element that you want to style

```
selector1 { Declaration
  property_1: value_1;
  property_2: value_2;
  ...
  property_N: value_N;
}
selector2 {
  property_1: value_1;
  property_2: value_2;
  ...
  property_M: value_M;
}
```

Note: declarations are separated by semicolons!

```
ol {
  list-style-type: circle;
  start: a;
}

p {
  text-align: center;
}
```

vs.

“Attribute specification”  
in older versions of HTML

`name_of_attribute="value"`

`<p align="center">`

# Ways to define styles

## 1. In the header

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01
Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">

<html>
  <head>
    <title>Title</title>
    <style type="text/css">
      p{
        text-align: center;
        color: blue;
      }
    </style>
  </head>
  <body>
    <h1>Heading</h1>
    <p>This is a paragraph.</p>

    </body>
  </html>
```

## 2. "Inline" (FYI)

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01
Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">

<html>
  <head>
    <title>Title</title>

  </head>
  <body>
    <h1>Heading</h1>
    <p style="text-align: center;
color: blue;">This is a
    paragraph.</p>

    </body>
  </html>
```

# Ways to define styles

1. In the header
2. Inline
3. In a separate CSS file:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
<html>
  <head>
    <title>Title</title>
    <style type="text/css">
      p {
        text-align: center;
      }
    </style>
  </head>
  <body>
    <h1>Heading</h1>
    <p>This is a paragraph.</p>
    <p>This is another paragraph.</p>
  </body>
</html>
```

remove

# Linking to an external stylesheet

second\_page.html

```
ind<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
  <head>
    <title>Page 2</title>
    <link href="my_style.css" type="text/css" />
  </head>
  <body>
    <h1>Heading</h1>
    <p>This is yet another page.</p>
  </body>
</html>

  <p>This is another paragraph.</p>
</body>
</html>
```

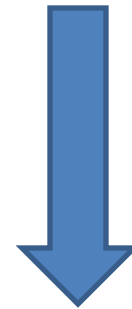
my\_style.css

```
p {
  text-align: center;
}
```

# 3 ways to styling markup

Amount of work?

1. Inline
2. In the header
3. In a separate CSS file



Most

least

# CSS: Summary

What?

“Cascading” stylesheet?

– “Cascading”: answered later

Why CSS?

– You should know 😊

How?

`<style>`

`<link>`

# Key items learned so far

- Tags:

List `<ol><ul><li><dl><dt><dd>`

Image `<img>`

Anchor `<a>`

Linking to external data `<link>`

Styling `<style>`

<http://www.w3schools.com/tags/>

- Key concepts:

- Relative vs. Absolute URL

- Attribute specification vs. Stylesheet

- attribute="value" vs. selector | property | value



# Lab exercise 2

- XHTML + CSS
- Due this Thursday 23:59pm
- TA office hours today and Wed.