



Web Technologies and Programming

Lecture 13

CSS Properties

Summary of the previous lecture

- **CSS basics.**
- **Versions of CSS**
- **Advantages/Disadvantages of CSS**
- **CSS writing option**
 - External style sheet
 - Internal style sheet
 - Inline style
- **CSS rules**
 - CSS Precedence Order
- **Id,s and Classes**

Outline

- **Font properties**
- **Controlling text with CSS**
- **Styling links**
- **Styling background**
- **Styling tables**

1. CSS properties

- **CSS** works by allowing you to associate rules with the elements that appear in a web page
- These rules **govern** how the content of those elements should be **rendered**

1. CSS properties...

- A rule consists of
 - **A selector:** element or elements the declaration applies to
 - **Declaration:** how the elements referred to in the selector should be styled
 - **property:** which is the property of the selected element
 - **value:** which is a specification for this property

selector declaration

| |

H1 {color: blue;}

 | |

 property value

1. CSS properties...

- To **control** the presentation of an element, you need to know the **corresponding properties**
- Properties with **related functionalities** are grouped together
 - Example:
 - Properties to control the **presentation of text**

2. Font properties

- When text is displayed in a browser it appears in a default font face, size, style, and color.
- Most browsers use the Times New Roman font face at approximately 12-point size and rendered in black.
- CSS settings permit you to change these default settings to bring a different look to your pages.
- Several properties allow you to control the appearance of text in your documents
- These properties directly affect the font and its appearance

2. Font properties...

- **Common font properties:**

- font-family

- font-size

- font-weight

- font-style

- font-variant

2.1 font-family

- A generic description of a range of font types all having a similar design supported by all CSS capable browsers
- The `font-family` property needs to be specified to change the browser's default setting from Times New Roman.
- Five generic font families are supported by Cascading Style Sheets:
 - **Serif** (*e.g.*, Times)
 - **Sans-serif** (*e.g.*, Arial or Helvetica)
 - **Cursive** (*e.g.*, Zapf-Chancery)
 - **Fantasy** (*e.g.*, Western)
 - **Monospace** (*e.g.*, Courier)

2.1 font-family

- **A computer may provide additional font families that supplement generic font families**
- **You cannot assume these additional families will be available**
 - So if used specify a generic font to use if the specific font family is not available
- **The following font faces are typical on a Windows-based PC:**
 - arial
 - arial narrow
 - comic sans ms
 - courier new
 - georgia
 - impact
 - tahoma
 - times new roman
 - verdana

2.1 font-family (Example)

- **Example:**
 - **h1, h2, h3, h4, h5, h6 {font-family: Arial Helvetica sans-serif}**
- **As with the tag proceed from the most unlikely to the most likely font family**
 - **Similar to attribute**

2.2 font-size

- The `font-size` property is used to change the browser's default 12-point size.
 - You can use pixels to set letter heights for special styling.
 - **In pixels** (12px, 20px etc.)
 - **Absolute size** (small, medium, large, x-large etc.)
- **Two ways to specify:**
 - Absolute
 - Relative
 - Using a Keyword description
 - As a percent of the default font size for a tag

2.2 font-size (Absolute Font)

- millimeters (use mm)
- inches (use in)
- points (72 points per inch; use pt)
- pica (6 picas per inch; use pc)
- **pixel (use px)**
 - Smallest display element on computer monitor
- **Can specify decimal units:**
 - h1 {font-size: 0.5in}

2.2 font-size (Relative Font)

- Specify according to relationship to the standard character
- Standard characters: em and ex
- **EM Unit**
 - Equal to **width of capital letter “M”** in the default font
- **EX Unit**
 - Equal to the **height of a lower case “x”** in the default font

2.2.1 Advantages of relative unit.

- **Allows for scalable fonts**
- **Monitors vary in size of display and screen resolution**
 - Specifying a relative unit ensures a uniform viewing experience across the variety of monitors rendering your page
- **As a scalable font:**
 - `body {font-size: 150%}`
- **Use descriptive keywords: xx-small through xx-large:**
 - `b {font-size: xx-large}`

2.3 font-style

- **Specifies appearance of font**
 - Browser default is the normal style.
- **Syntax:** `font-style: style_type`
- **Style Types:**
 - normal
 - italic
 - oblique (similar to italic)
- **Example:**
 - `p {font-style: italic}`

2.3 font-weight

- Specifies the degree of “boldness” of the type
- Specifies whether the font should be bold or normal
- Specified from 100-900 in intervals of 100
 - 100 is lightest
 - 900 is heaviest
- **Example:**
 - `p {font-weight: 300}`

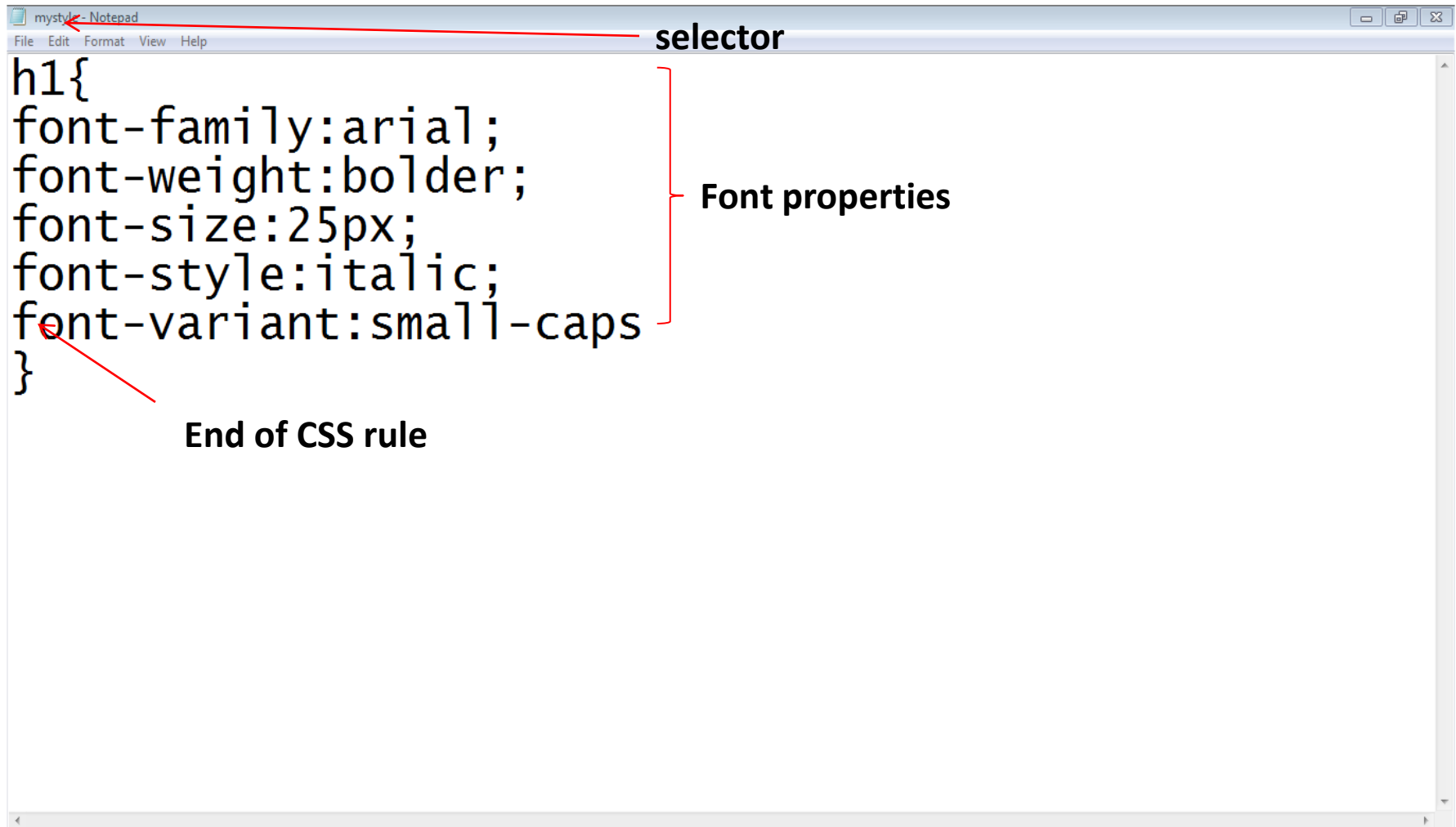
2.3 font-variant

- Specifies whether the font should be **normal** or **small-caps** (smaller version of upper case)
- Attribute values:
 - normal
 - small-caps (EXAMPLE)
 - Uppercases but reduces font size
 - Specifying normal returns the text to standard display.
- Example:
 - **H1{font-variant:small-caps}**

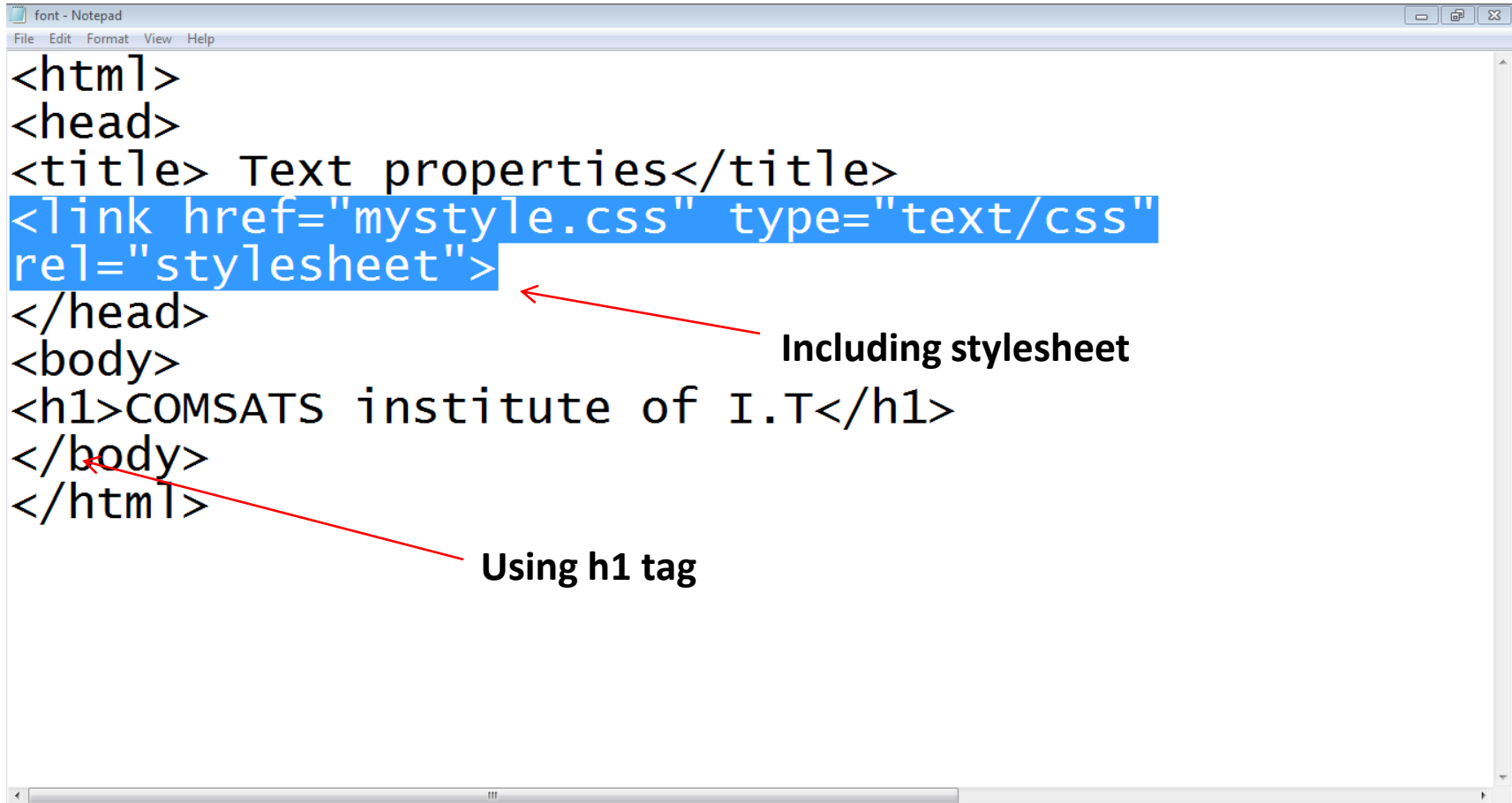
2.3 font Property

- Pools together a variety of text and font attributes
- **Attribute values are positional:** font-style specified first, font-variant second, font-weight last
- **Example:**
 - `h2 {font: italic small-caps bold}`
 - (instead of)
 - `h2 {font-style:italic; font-variant:small-caps; font-weight:bold}`

2. Font properties... (Example)



2. Font properties... (Example)



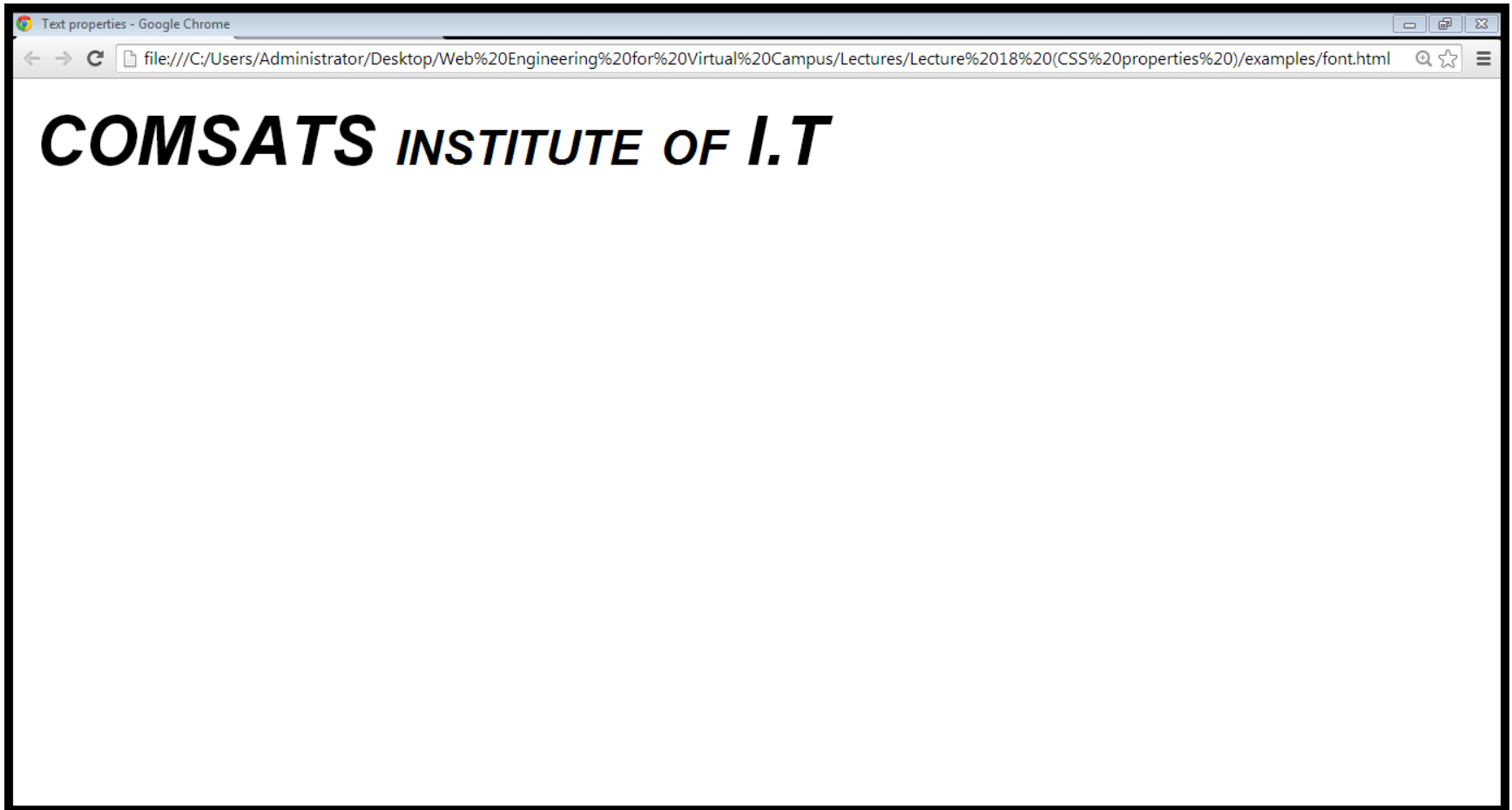
The image shows a Notepad window titled 'font - Notepad' with a menu bar (File, Edit, Format, View, Help). The text content is as follows:

```
<html>
<head>
<title> Text properties</title>
<link href="mystyle.css" type="text/css"
rel="stylesheet">
</head>
<body>
<h1>COMSATS institute of I.T</h1>
</body>
</html>
```

Two red arrows point from text annotations to specific parts of the code:

- An arrow points from the text **Including stylesheet** to the `<link href="mystyle.css" type="text/css" rel="stylesheet">` line.
- An arrow points from the text **Using h1 tag** to the `<h1>COMSATS institute of I.T</h1>` line.

2. Font properties... (Example)



3. Text properties

- Font settings can be paired with other style sheet properties to apply additional formatting to strings of text.
- The following text properties can be paired with font settings to bring more variety to text displays.
 - word-spacing
 - letter-spacing
 - line-height
 - text-align
 - vertical-align
 - text-indent
 - text-decoration
 - text-transformation

3. Text properties

- Word, letter and line spacing specify amount of white space to leave between words, letters and lines
- Syntax:
 - **word-spacing:** size
 - **letter-spacing:** size
 - **line-height:** size
- Size can be expressed as “normal” (browser determines spacing) or a specific unit

3. Text properties

- **p {letter-spacing: 1 em}**
 - Might render: L e t t e r
- **p {word-spacing: 2 em}**
 - Might render: This is an example
- **p {line-height: 2}**
 - Indicates line height is twice the font size height
 - Default is 1.2

3. Text properties

- color
- text-align
- vertical-align
- text-decoration
- text-transform
- word-spacing
- letter-spacing

3. Text properties

- **color:**

- specifies the **color** of the text

- **P{color : green}**

- **text-align:**

- **horizontal** alignment of the text

- **Left, right, center or justify**

- **vertical-align:**

- **Vertical** alignment of the text

- **Sub, super, top, middle, bottom**

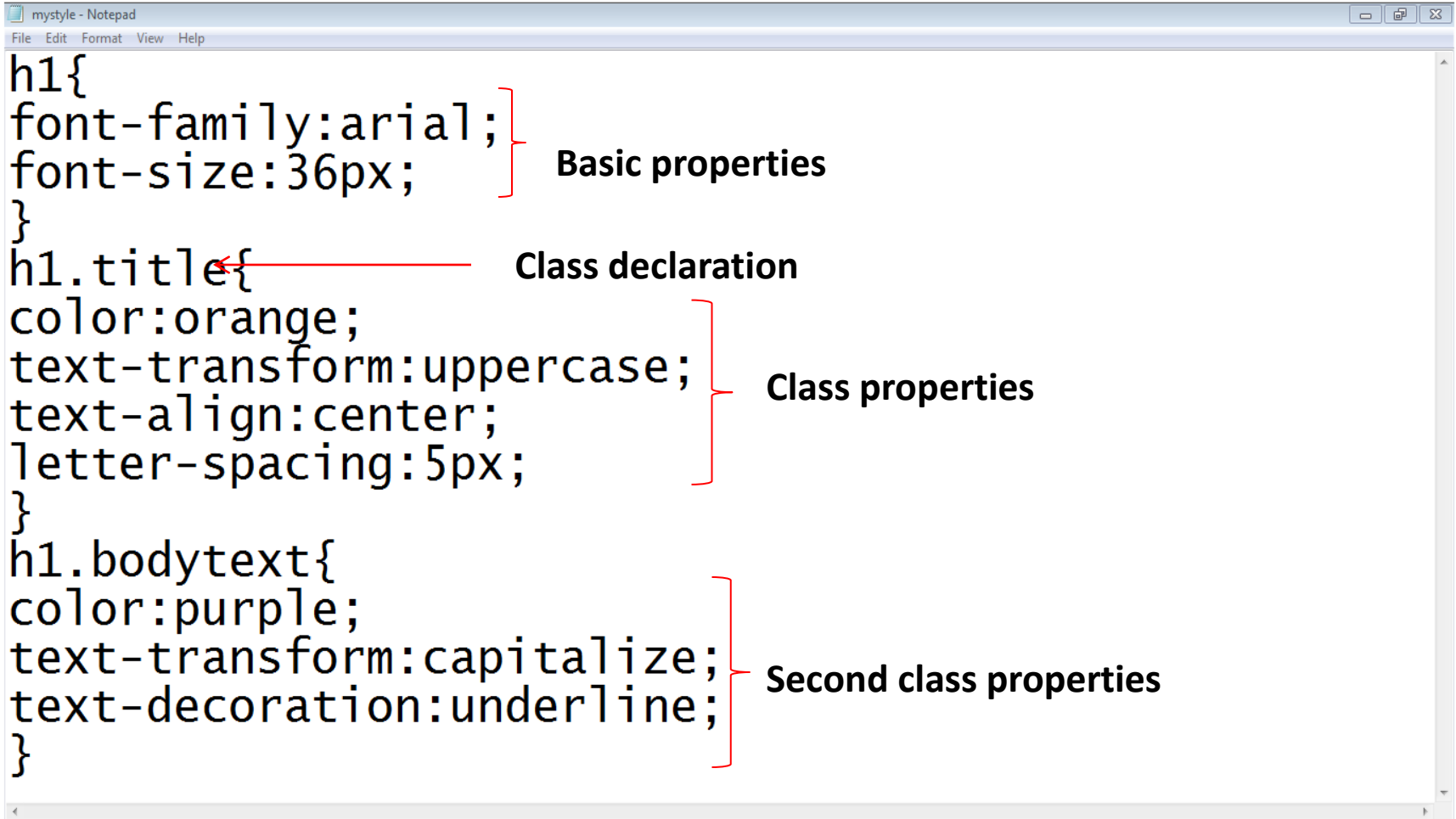
3. Text properties

- **text-decoration:**
 - specifies the whether the text should be **underline, overline, line-through** or **blinking**
- **text-transform:**
 - text should be **lowercase, uppercase or capitalized**
- **letter-spacing:**
 - Specifies the space between letters
 - **H1{letter-spacing:3px}**

3. Text properties

- **word-spacing:**
 - Specifies the space between **words**
 - **H1{word-spacing:4px}**

3. Text properties



```
mystyle - Notepad
File Edit Format View Help

h1{
font-family:arial;
font-size:36px;
}
h1.title{
color:orange;
text-transform:uppercase;
text-align:center;
letter-spacing:5px;
}
h1.bodytext{
color:purple;
text-transform:capitalize;
text-decoration:underline;
}
```

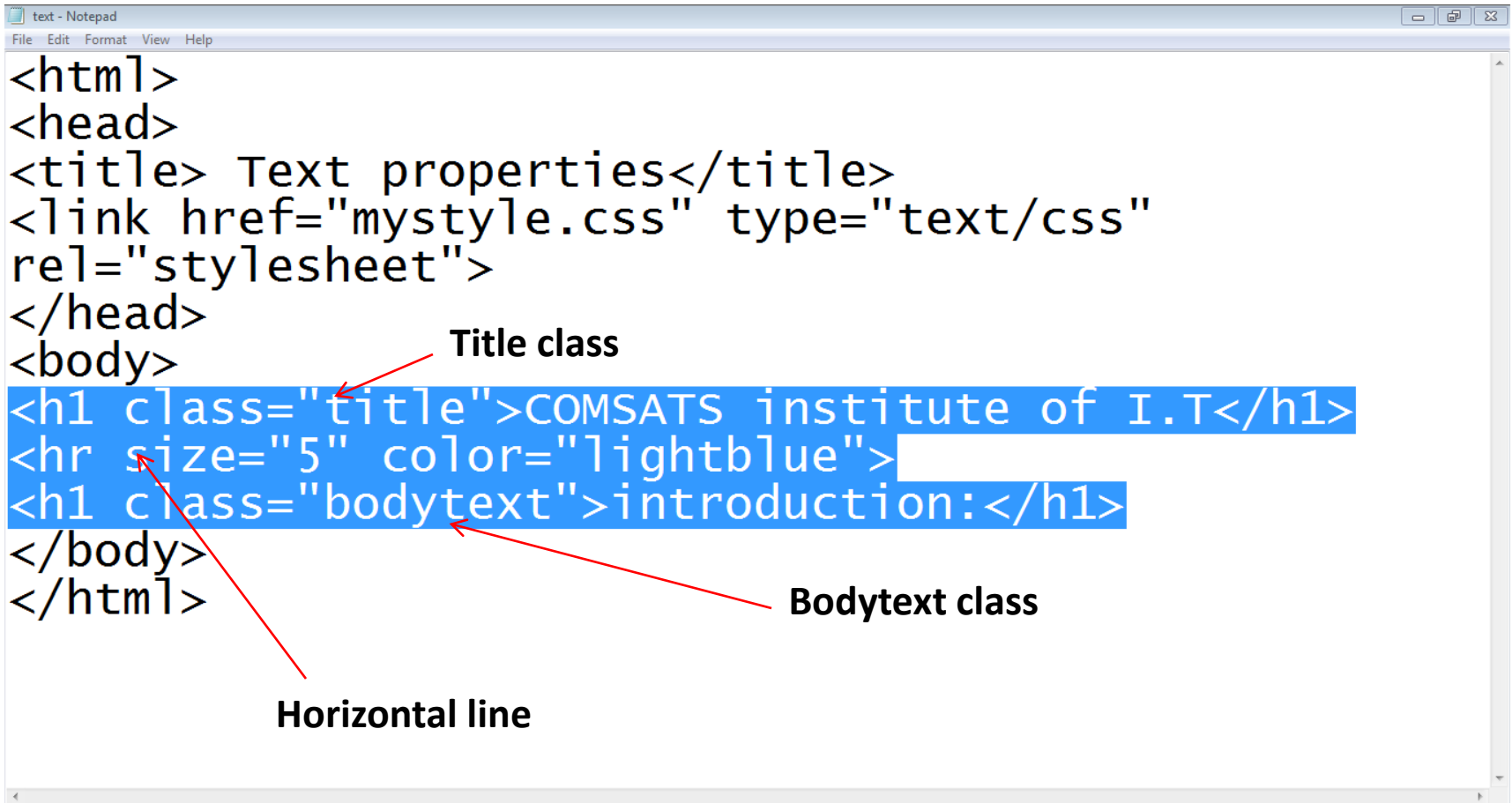
Basic properties

Class declaration

Class properties

Second class properties

3. Text properties



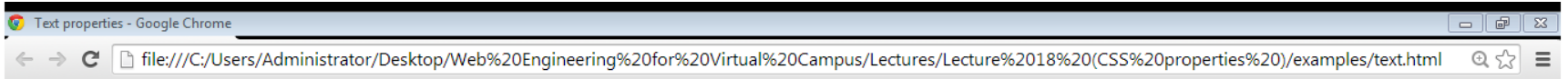
```
<html>
<head>
<title> Text properties</title>
<link href="mystyle.css" type="text/css"
rel="stylesheet">
</head>
<body>
<h1 class="title">COMSATS institute of I.T</h1>
<hr size="5" color="lightblue">
<h1 class="bodytext">introduction:</h1>
</body>
</html>
```

Title class

Horizontal line

Bodytext class

3. Text properties



COMSATS INSTITUTE OF I.T

Introduction:

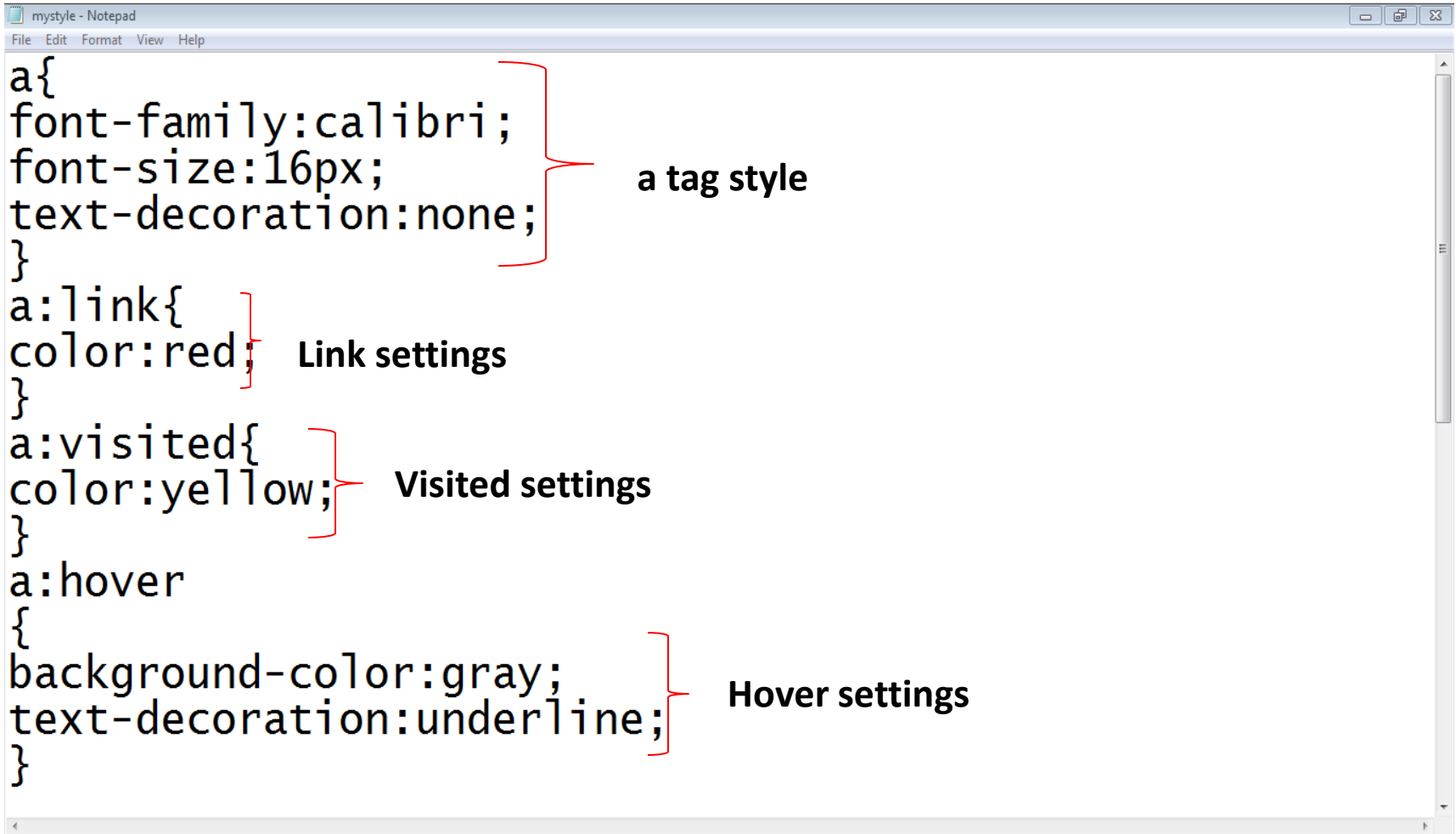
3. Styling Links

- **color :**
 - Changes the **color** of the links
- **background-color :**
 - **Highlights** the link, as if it had been highlighted with a highlighter pen
- **text-decoration :**
 - **Underline, strike through, over-line, blink**

3. Styling links...

- Pseudo-classes of links:
- Link:
 - Styles for **links** in general
- Visited:
 - Styles the links which are **already visited**
- Hover:
 - Styles when some on **hovering** over a link
- Active:
 - Styles the links when a links is **being clicked**

3. Styling links...



```
mystyle - Notepad
File Edit Format View Help

a{
font-family:calibri;
font-size:16px;
text-decoration:none;
}
a:link{
color:red;
}
a:visited{
color:yellow;
}
a:hover
{
background-color:gray;
text-decoration:underline;
}
```

a tag style

Link settings

Visited settings

Hover settings

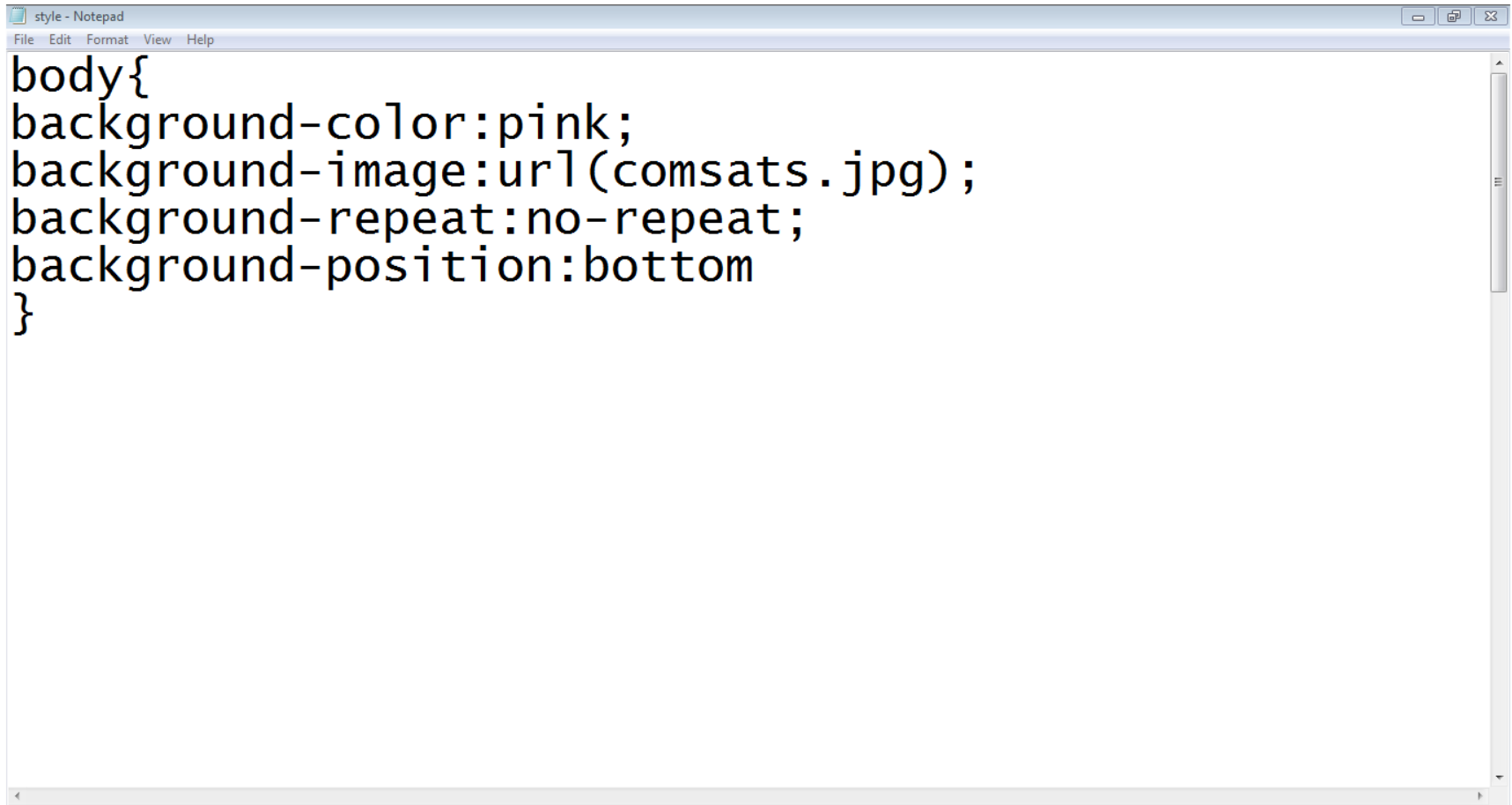
3. Styling links...

[illegible]

4. Styling Background

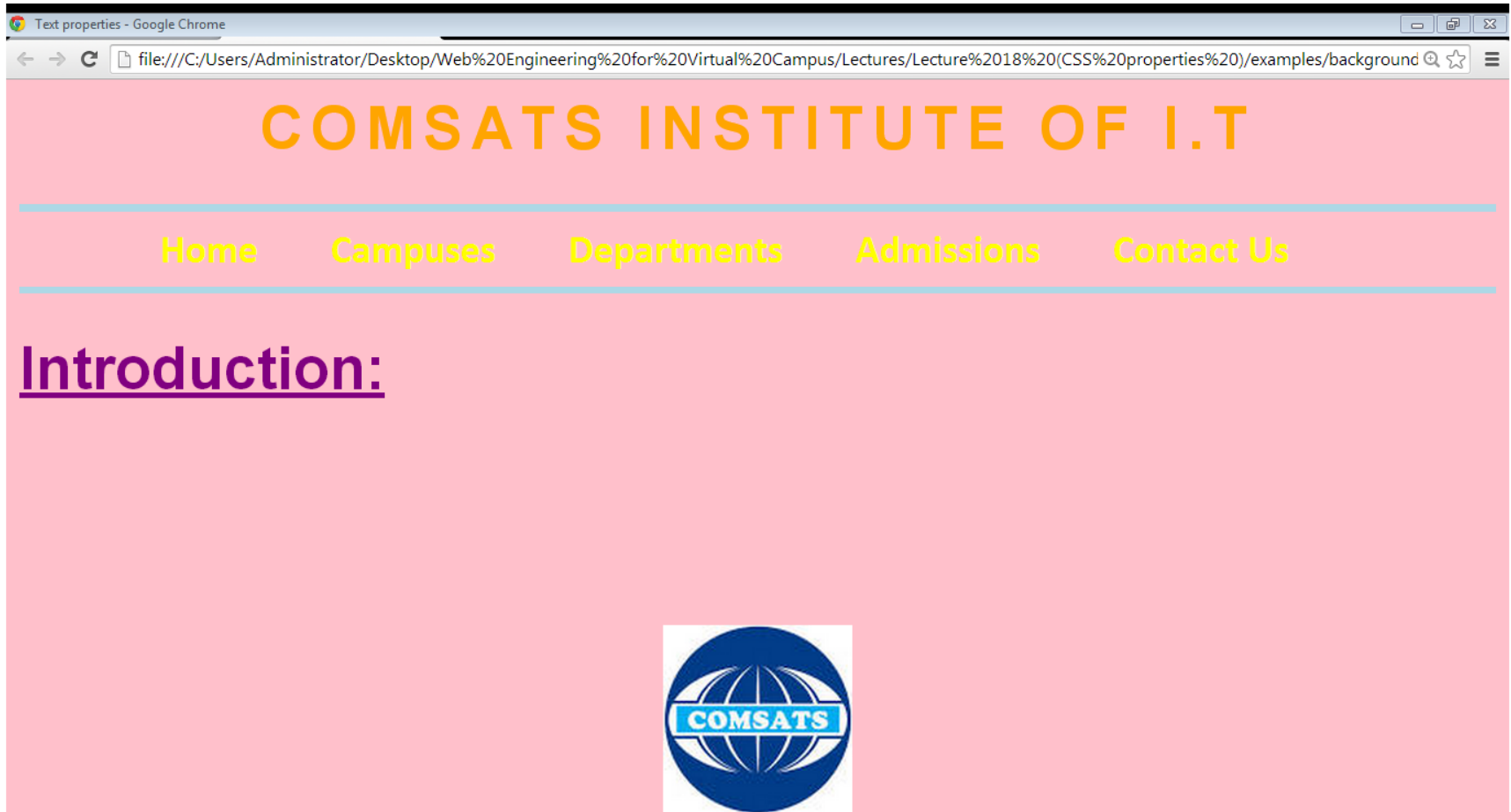
- **background-color:**
 - Specifies the **background color**
- **background-image:**
 - Specifies the **background image**
- **background-repeat:**
 - Specifies whether the image should **repeat or not**
- **background-position:**
 - Where an image should be **positioned**

4. Styling Background...



```
body{
background-color:pink;
background-image:url(comsats.jpg);
background-repeat:no-repeat;
background-position:bottom
}
```

4. Styling Background...



5. Styling tables

- **text and font**
- **vertical – align**
- **width**
- **height**
- **background - color**
- **background - image**

5. Styling tables

- **border:**
 - **border-style** (solid, dashed, dotted, double etc.)
 - **border-color**
 - **border-bottom** (solid, dashed, dotted, double etc.)
- **padding**
 - **Padding-left**
 - **Padding-right**
 - **Padding-top**
 - **padding-bottom**

5. Styling tables...

```
style - Notepad
File Edit Format View Help

table{
border-style:dashed;
border=3px;
width:300px;
}
th{
font-family:calibri;
background-color:gray;
}
td{
background-color:lightblue;
vertical-align:top;
}
tr{
height:50px;}

Table settings
Th settings
Td settings
Tr settings
```

5. Styling tables...

Text properties - Google Chrome

file:///C:/Users/Administrator/Desktop/Web%20Engineering%20for%20Virtual%20Campus/Lectures/Lecture%2018%20(CSS%20properties%20)/examples/table.html

Table Style

Name	Registration No
Bashart	FA09-RCS-001

Summary

- **Font properties**
 - font-family
 - font-size
 - font-weight
 - font-style
 - font-variant
- **Controlling text with CSS**
 - word-spacing
 - letter-spacing
 - line-height
 - text-align
 - vertical-align
 - text-indent
 - text-decoration
 - text-transformation

Summary

- **Styling links**
- **Styling background**
 - **background-color**
 - **background-image**
 - **background-repeat**
 - **background-position**
- **Styling tables**
 - **text and font**
 - **vertical – align**
 - **width**
 - **height**
 - **background - color**
 - **background - image**

THANK YOU
