

# Lecture 11

## Page Layout

**Mr. Mubashir Ali**

**Lecturer (Dept. of Computer Science)**

[dr.mubashirali1@gmail.com](mailto:dr.mubashirali1@gmail.com)

# Summary of the previous lecture

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

# Outline

- **The process to design a page layout**
- **div tag**
- **Coding a page using divs and CSS**

# Consider a web application to develop

- **CONNECTIONS:** a smaller version of **social web**
- Users can **register** themselves
- After registration they can **send a text message** to anybody who is registered with the website
- User's can **view** the received messages

# 1. The process

- Determine the **requirements** of the site
- **Group** the required information
- Make a **site map**
- **Identify** key elements for each page
- Decide about the **arrangement** of information on each page
- **Translate** the design into code

# 1.1 Determining requirements

- **Understanding the audience**
- **Who?** Who will visit the site?
  - You can create **fictional visitors**
  - Men and women of 20 to 50 years of age
- **Why?** Why have they come to your site?
  - Send messages
  - View received messages

# 1.1 Determining requirements...

- **What?** What does a visitor need to achieve a goal?
  - Will they be **familiar** with your product?
- **How often?** How often can you realistically expect them to visit?
  - In-order to make changes

# 1.1 Determining requirements...

- **Things You Want the Site to Do**
- **Determining the requirement of the **owner of the site** which are not already listed**
  - **User must **register** themselves in-order to send and receive messages**



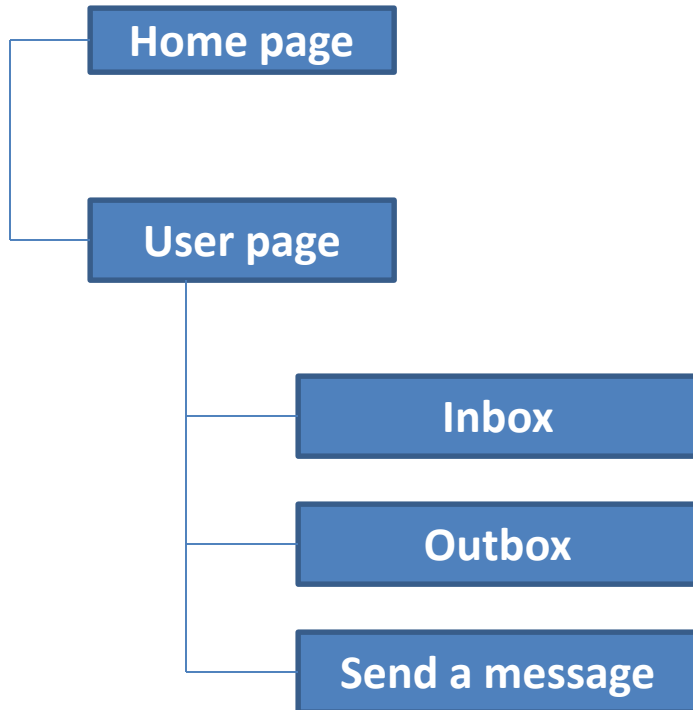
# 1.2 Grouping and categorization

- **Group related information/sections**
  - Home page: login form, registration form
  - User page: user's information, recent messages
  - Inbox: Received messages
  - Outbox: Sent messages
  - Send a message: Send message form

# 1.3 Make a site map...

- Site map shows how **many** pages you need and how they **relate**
- Usually look like either a **family tree** or **folder list**

# 1.3 Make a site map



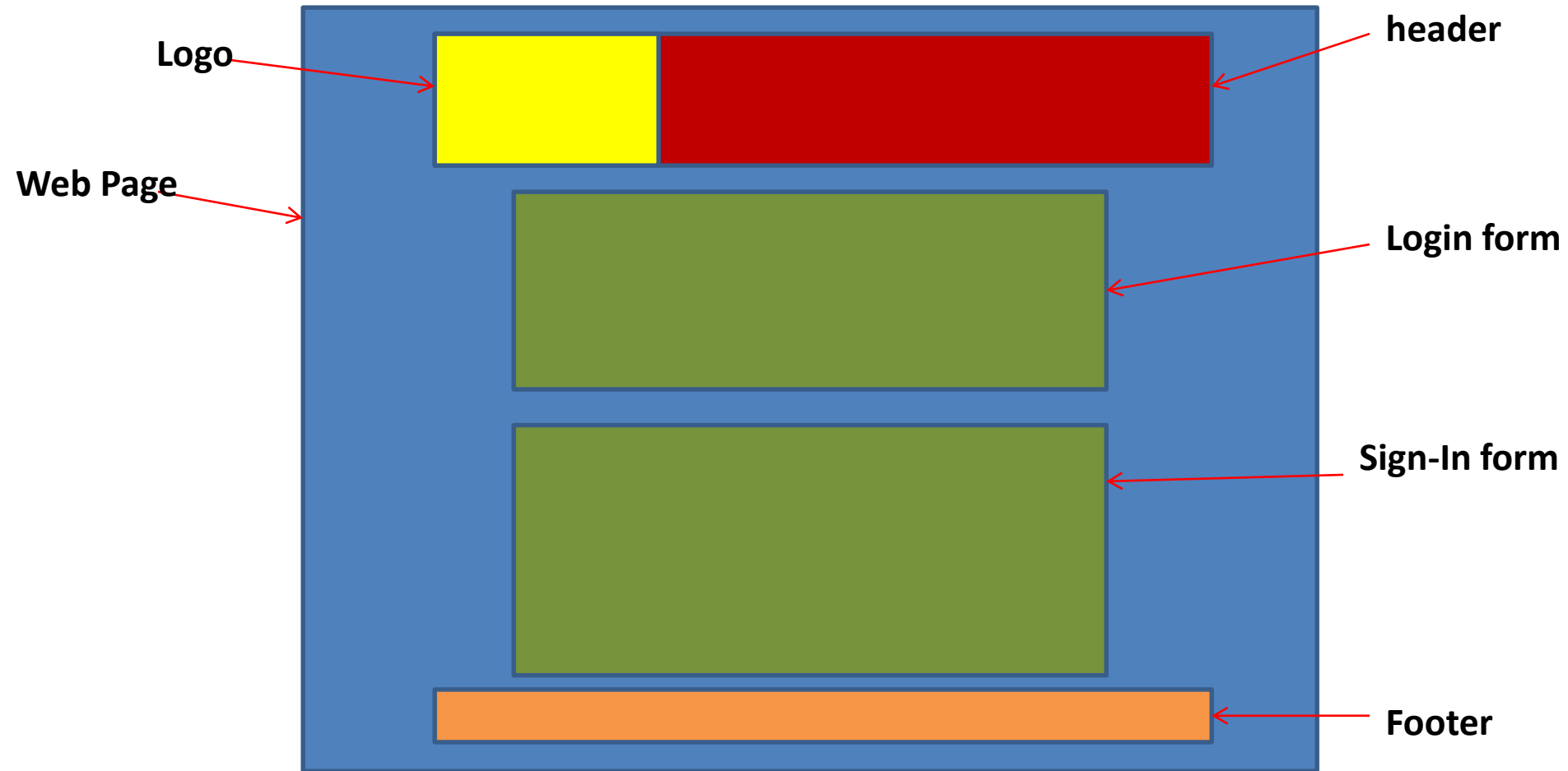
# 1.4 Key element for each page

- **Common sections** (header, navigation, footer etc.)
- **Page specific sections**
- **Common Sections** (header, footer)
- **Page specific sections**
- **Home page: login form, registration form**
- **User page: user's information, recent messages**

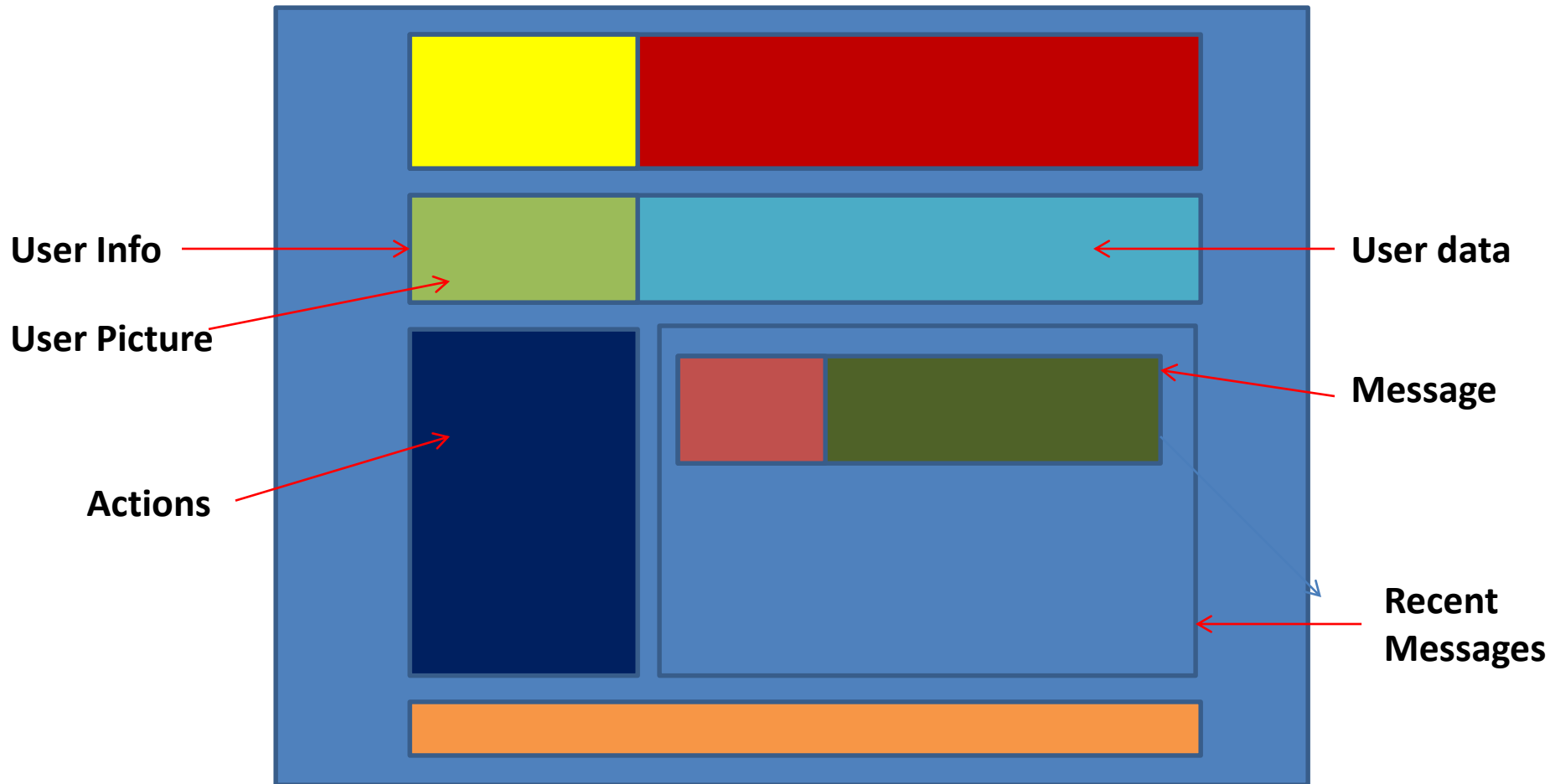
# 1.4 Key element for each page...

- **Inbox page: received messages**
- **Outbox page: messages sent by the user**
- **Send message page: form to send a message**

# 1.5 Arranging elements on pages



# 1.5 Arranging elements on pages...



## 2. Translating design into code

- **Liquid vs Fixed design**
- **The Div tag**
- **Coding the design**



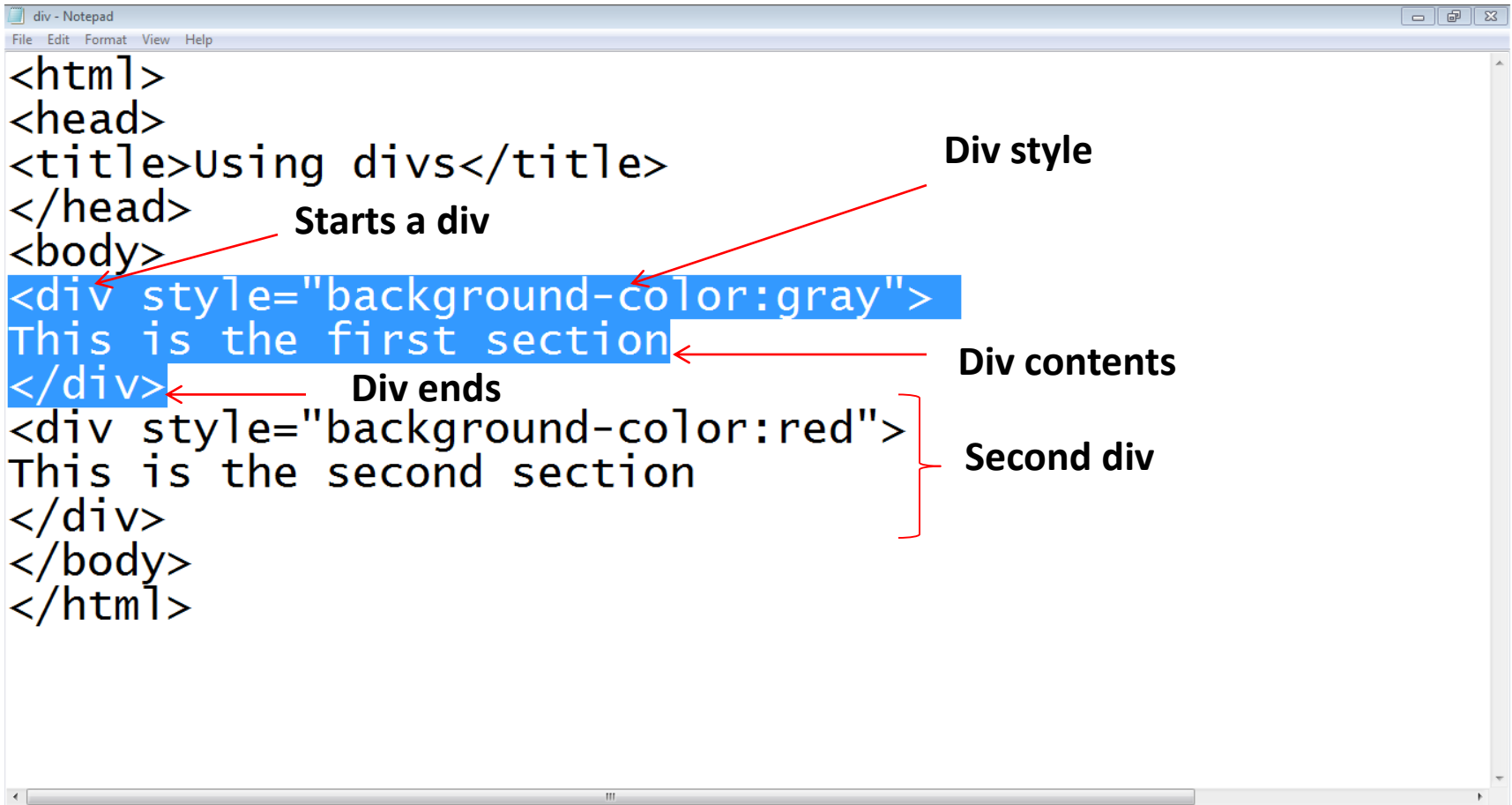
# 2.1 Liquid vs Fixed design

- **Liquid Design**
  - designs **automatically** fits to the screen
  - Use **percentage** values to declare height and width of sections
- **Fixed design**
  - Designs remain **fixed** width
  - Use **fixed** values to declare height and width of sections

## 2.2 The <div> tag

- Defines a **division or section** in an HTML document
- Visually, allows us to make **containers** that can be formatted
- Can be declared as
  - **<div>.....</div>**

# 2.2 The <div> tag



```
<html>
<head>
<title>Using divs</title>
</head>
<body>
<div style="background-color:gray">
This is the first section
</div>
<div style="background-color:red">
This is the second section
</div>
</body>
</html>
```

**Starts a div** (points to the opening tag)

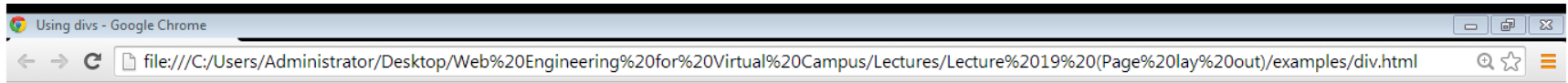
**Div style** (points to the style attribute)

**Div contents** (points to the text inside the first div)

**Div ends** (points to the closing tag)

**Second div** (bracketed around the second div block)

## 2.2 The <div> tag...



This is the first section

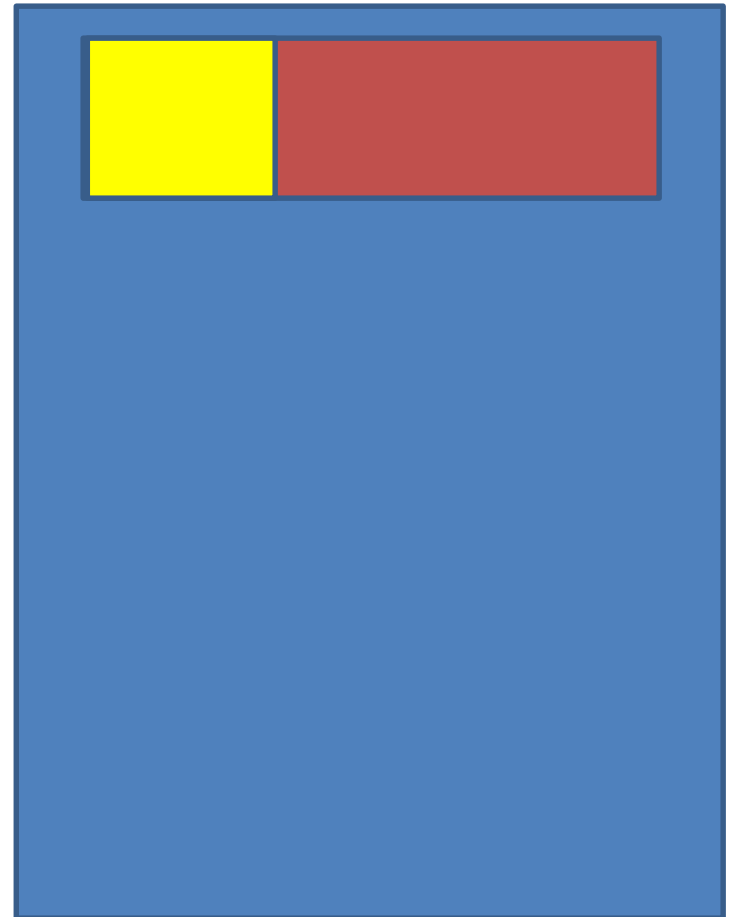
This is the second section

**First div**

**Second div**

## 2.3 Coding the design

```
<div id="container">  
<div id="header">  
<div id="logo"></div>  
</div> //header div ends  
</div> //container div ends
```



## 2.3 Coding the design...

```
<div id="container">
```

**Header and logo divs**

```
<div id="center-content">
```

```
<div id="form-container">
```

```
<div class="form-heading">
```

Heading text </div>

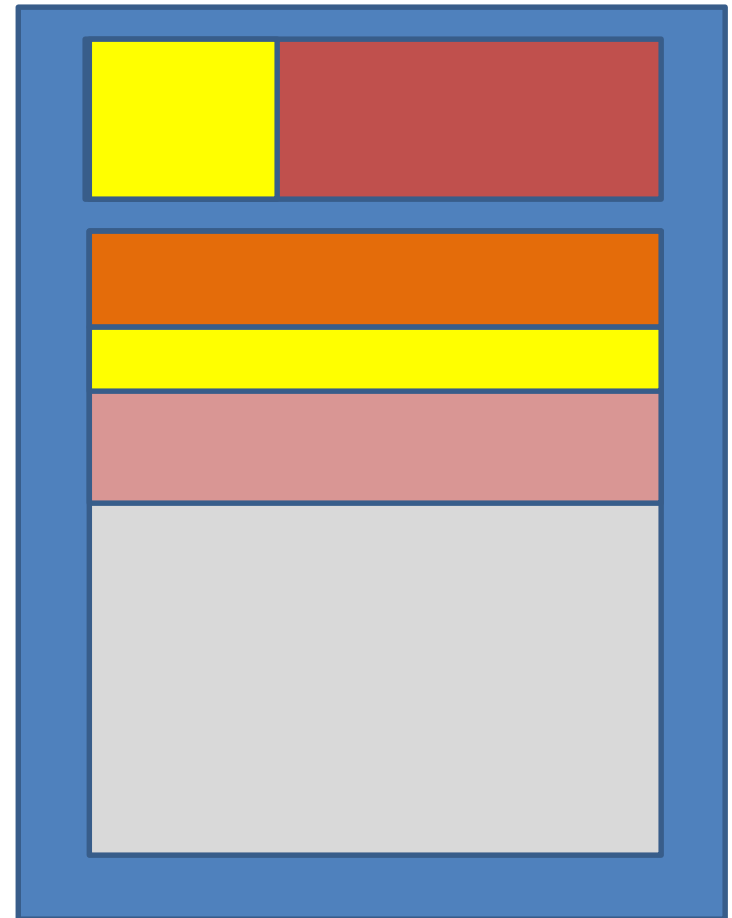
```
<div class="form-rows">
```

Form element </div>

```
</div> //form container ends
```

```
</div> //end of center content
```

```
</div> //container div ends
```



## 2.3 Coding the design...

```
<div id="container">
```

**Header and logo divs**

```
<div id="center-content">
```

**Login form div's**

```
<div id="form-containter">
```

```
<div class="form-heading">
```

Heading text </div>

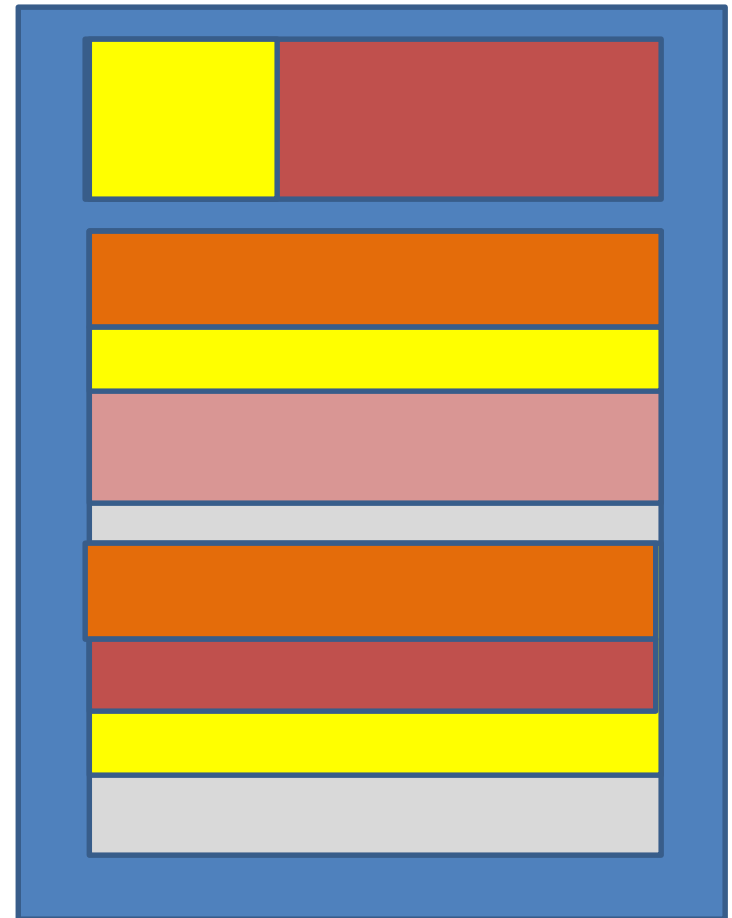
```
<div class="form-rows">
```

Form element </div>

```
</div> //form container ends
```

```
</div> //end of center content
```

```
</div> //container div ends
```



## 2.3 Coding the design...

```
<div id="container">
```

**Header and logo divs**

```
<div id="center-content">
```

**Login form div's**

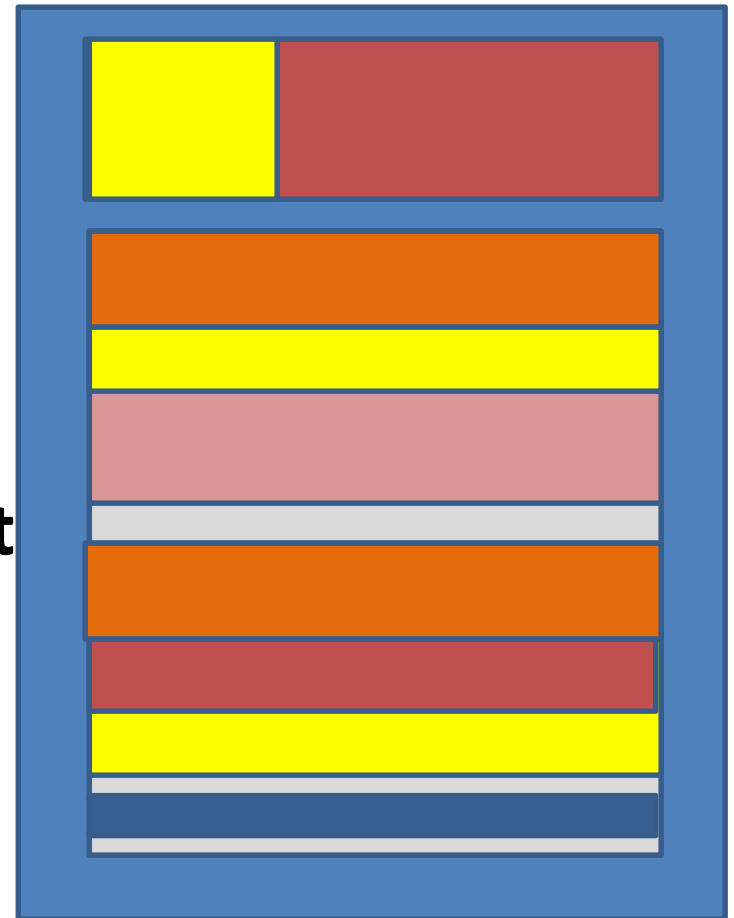
**Registration form div's**

```
</div> //end of center content
```

```
<div id="footer">
```

```
</div>
```

```
</div> //container div ends
```



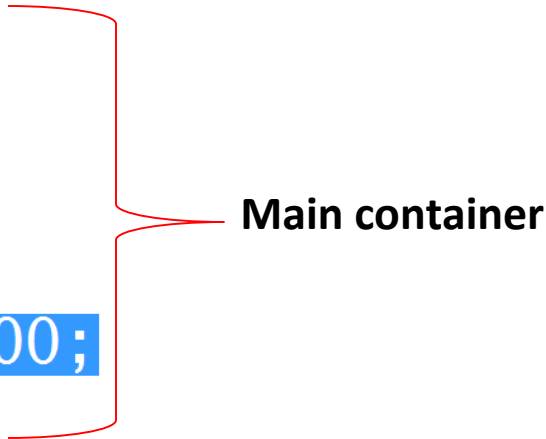


## 2.3 Coding the design...

- **Divs required to make the structure:**
- **Main container**
- **Header**
- **Logo**
- **Center container**
- **Form container**
- **Form heading**
- **Form row**

## 2.3 Coding the design...

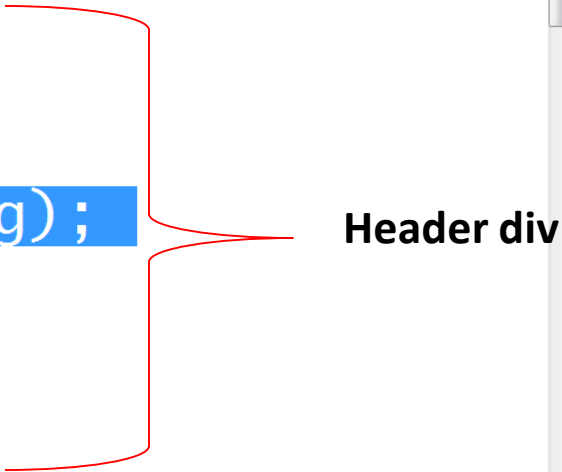
```
style - Notepad
File Edit Format View Help
body{
background-color:#CCCCCC;
}
#container{
height:auto;
width:80%;
margin-left:10%;
border:2px;
border-color:550000;
}
#header{
width:100%;
height:18%;
```



**Main container**

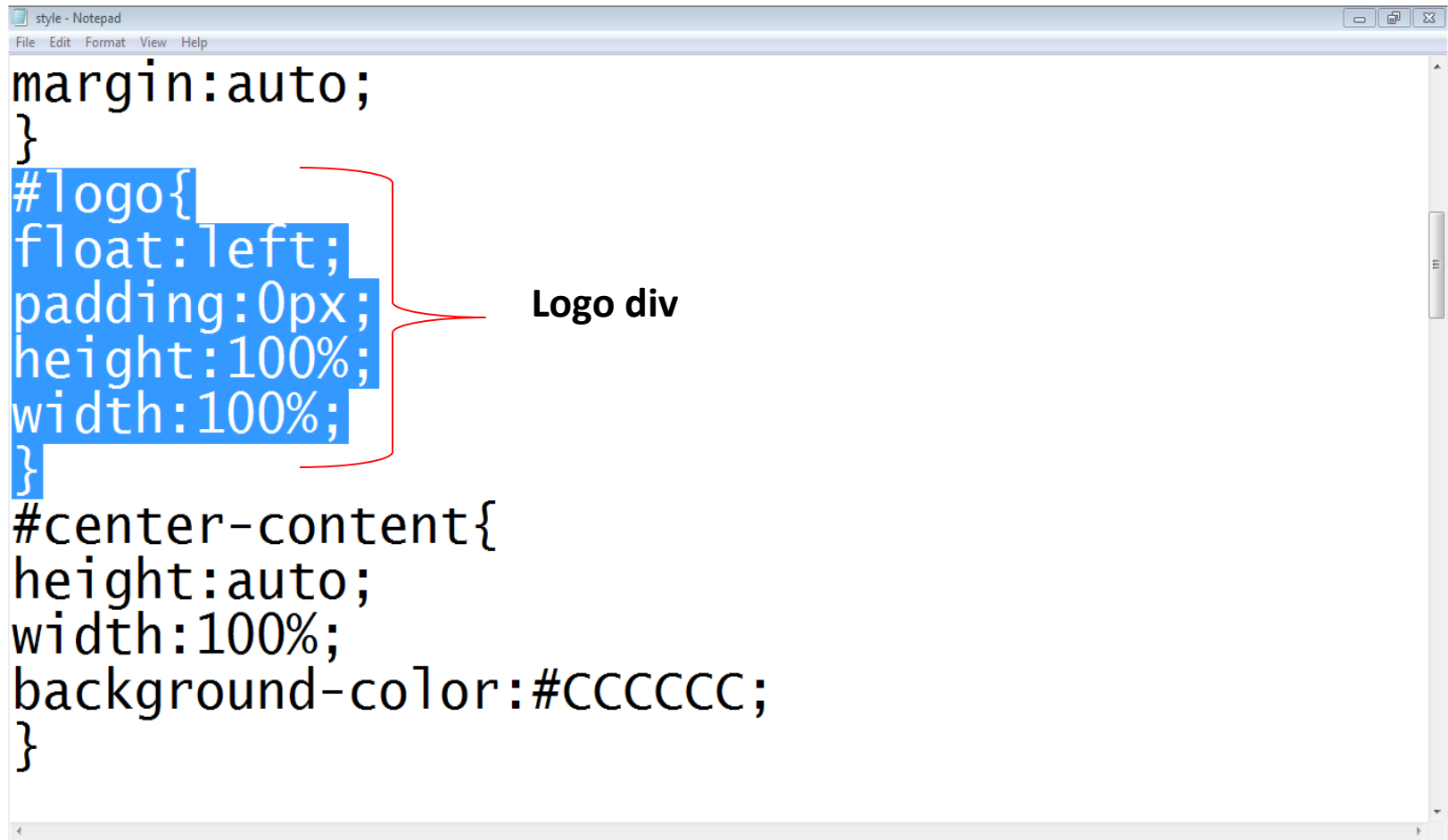
## 2.3 Coding the design...

```
style - Notepad
File Edit Format View Help
border:2px;
border-color:550000;
}
#header{
width:100%;
height:18%;
background:url(images/header.jpg);
background-repeat:repeat;
background-position:0px 0px;
margin:auto;
}
#logo{
float:left;
```



**Header div**

## 2.3 Coding the design...

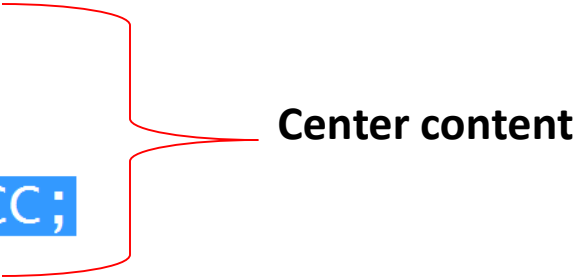


```
style - Notepad
File Edit Format View Help
margin:auto;
}
#logo{
float:left;
padding:0px;
height:100%;
width:100%;
}
#center-content{
height:auto;
width:100%;
background-color:#CCCCCC;
}
```

Logo div

## 2.3 Coding the design...

```
style - Notepad
File Edit Format View Help
div.center-content{
height:auto;
width:100%;
background-color:#CCCCCC;
}
div.form-container
{
margin-left:25%;
margin-right:25%;
margin-top:10px;
height:auto;
width:auto;
border:2px;
border-style:solid;
}
```



**Center content**

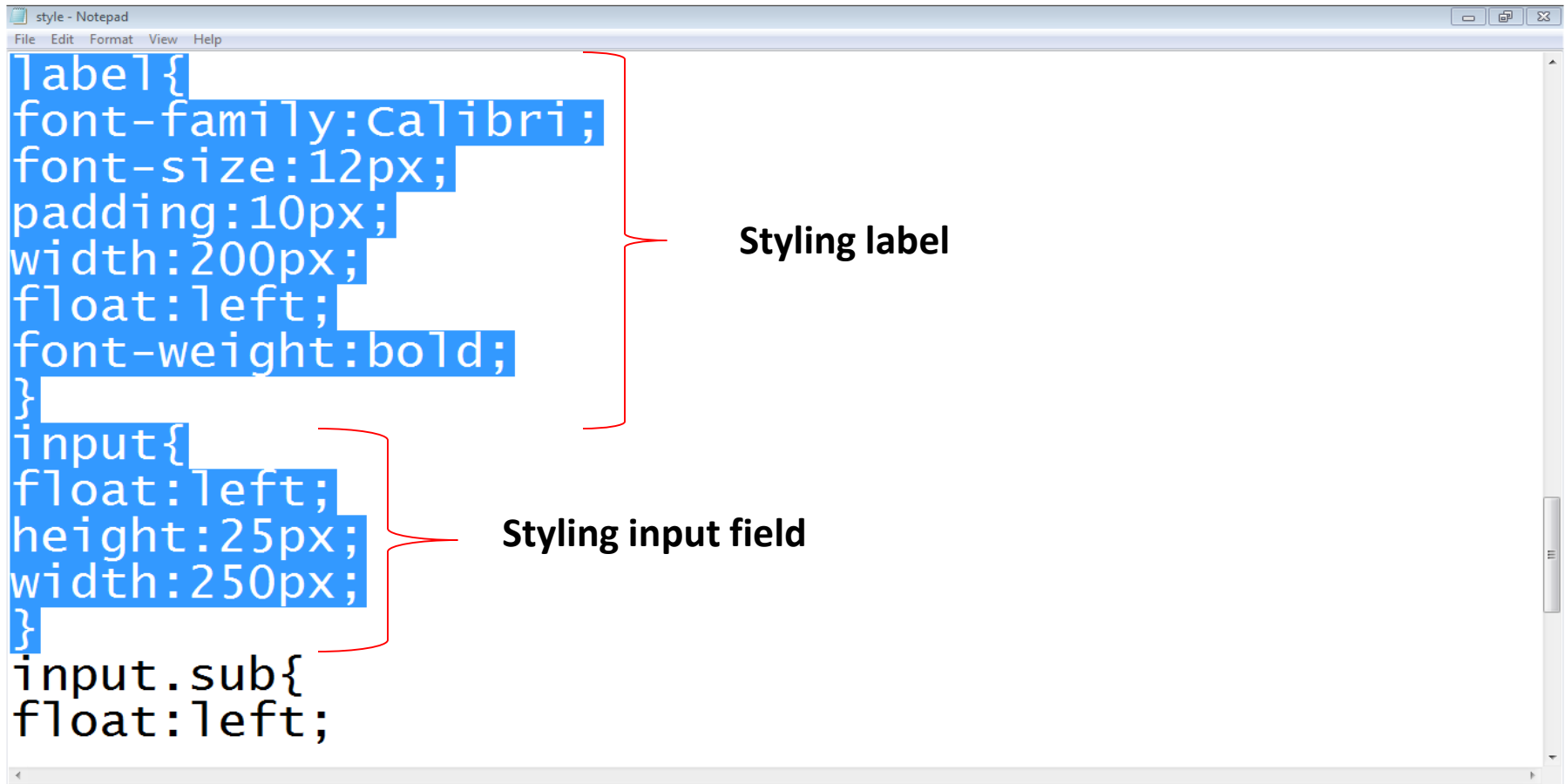
## 2.3 Coding the design...

```
style - Notepad
File Edit Format View Help
div.form-heading
{
padding:10px;
height:40px;
font-family:calibri;
color:white;
font-weight:bold;
font-size:26px;
background-color:550000;
}
div.form-row
{
padding:5px;
height:25px;
}
```

**Form heading**

**Form row**

## 2.3 Coding the design...



```
style - Notepad
File Edit Format View Help
label{
font-family:calibri;
font-size:12px;
padding:10px;
width:200px;
float:left;
font-weight:bold;
}
input{
float:left;
height:25px;
width:250px;
}
input.sub{
float:left;
```

**Styling label**

**Styling input field**

## 2.3 Coding the design...

```
style - Notepad
File Edit Format View Help
margin-left:100px;
}
div.space
{
height:10px;
}
#footer
{
margin-top:10px;
color:white;
text-align:center;
height:30px;
width:100%;
background-color:550000;
}
```

**Div adding space**

**Footer div**



## 2.3 Coding the design...

```
index - Notepad
File Edit Format View Help
<head>
<title> Connection Home Page!</title>
<link href="style.css" rel="stylesheet"
type="text/css">
</head>
<body>
<div id="container">
<div id="header">
<div id="logo"></div>
</div>
</div>
</body>
```

**Container div**

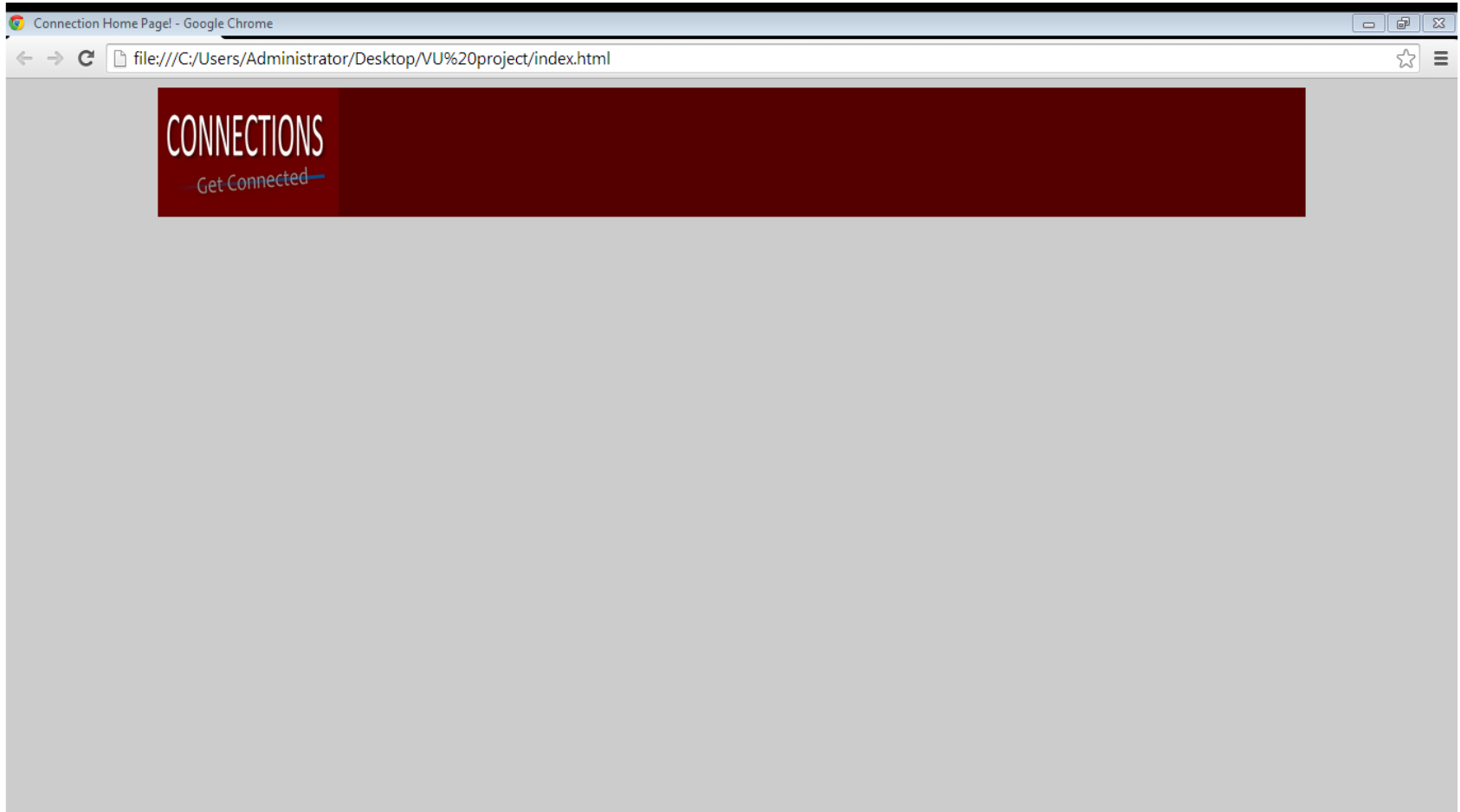
**Header div**

**Header ends**

**Logo div**

**Container ends**

# 2.3 Coding the design...



## 2.3 Coding the design...

```
index - Notepad
File Edit Format View Help
<div id="logo"></div>
</div>
<div id="center-content">
<div class="form-container">
<div class="form-heading">User Login </div>
<form>
<div class="form-row">
<label>Your ID</label>
<input type="text" name="ID">
</div>
</div>
</div>
```

Center content starts

Form container start

Form heading

Form starts

Row starts

Label

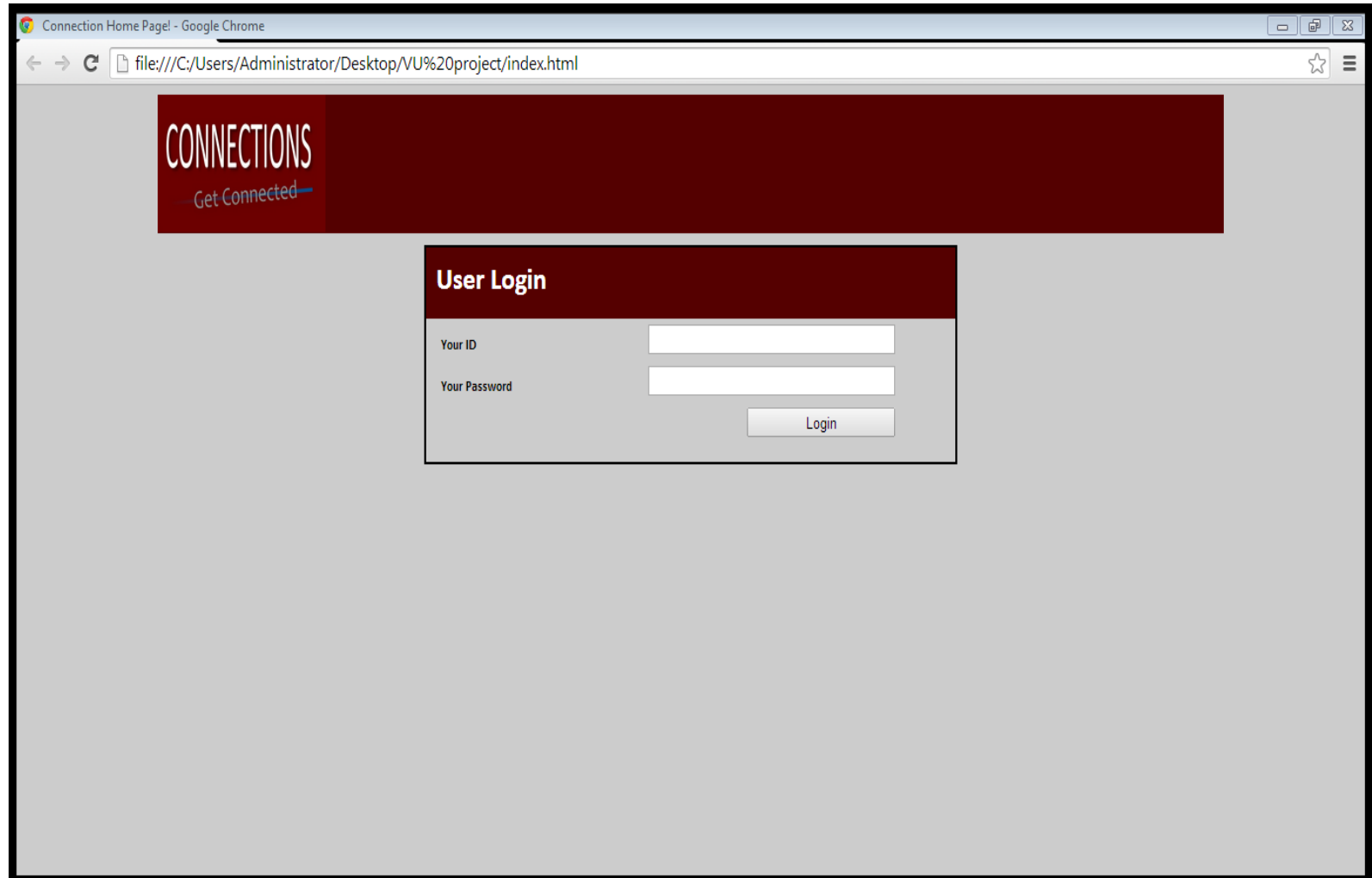
Input field

Row ends

Form container end

Center content ends

# 2.3 Coding the design...



## 2.3 Coding the design...

```
index - Notepad
File Edit Format View Help
</div>
<div class="space"> </div>
<div class="form-container">
<div class="form-heading">User Registration </div>
<form>
<div class="form-row">
<label>Your Full Name:</label>
<input type="text" name="name">
</div>
<div class="form-row">
<label>Your Email Address:</label>
<input type="text" name="email">
</div>
```

Space is added

Form container

heading

Form row

Second row

# 2.3 Coding the design...

The screenshot shows a web browser window with the following elements:

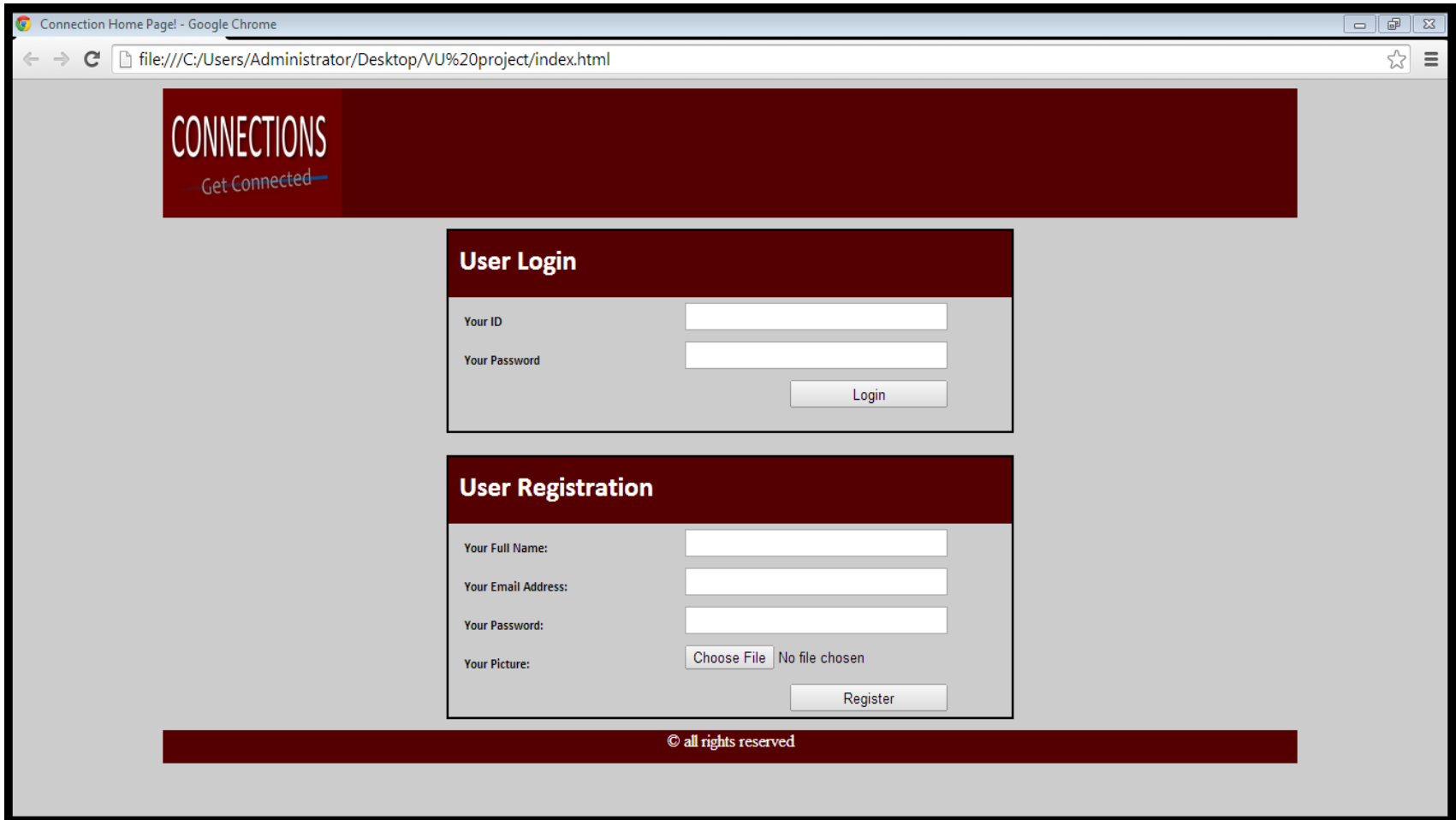
- Browser Title:** Connection Home Page! - Google Chrome
- Address Bar:** file:///C:/Users/Administrator/Desktop/VU%20project/index.html
- Header:** A dark red banner with the text "CONNECTIONS" in white, and "Get Connected" in a smaller font below it.
- User Login Form:** A dark red header "User Login" is followed by two input fields: "Your ID" and "Your Password". A "Login" button is positioned below the password field.
- User Registration Form:** A dark red header "User Registration" is followed by four input fields: "Your Full Name:", "Your Email Address:", "Your Password:", and "Your Picture:". The "Your Picture:" field includes a "Choose File" button and the text "No file chosen". A "Register" button is positioned below the password field.

## 2.3 Coding the design...

```
index - Notepad
File Edit Format View Help
<div class="form-row">
<label>Your Picture:</label>
<input type="file" name="pic">
</div>
<div class="form-row">
<label></label>
<input class="sub" type="submit" value="Register" />
</div>
</div>
</div>
<div id="footer">&copy; all rights reserved
</div>
</div>
```

Footer div

# 2.3 Coding the design...





# Summary

- **The process to design a page layout**
- **div tag**
- **Coding a page using divs and CSS**

# References

- **Chapter 9, Beginning HTML, XHTML, CSS, and JavaScript**, by Jon Duckett, Wiley Publishing; 2009, ISBN: 978-0-470-54070-1.