Lab Manual Week 7
Web Programming
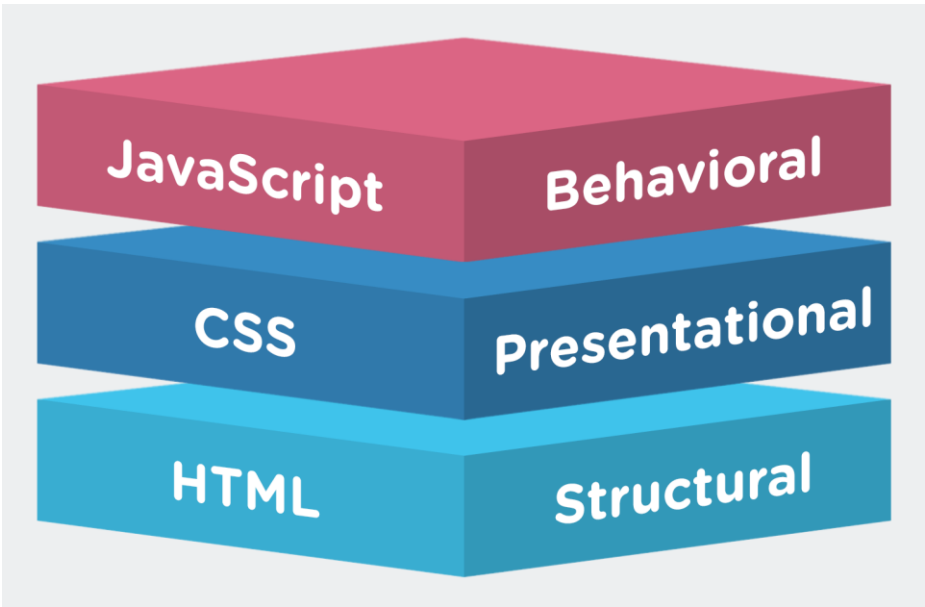
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Matric Num	:	S60348
Semester	:	3
Lab	:	7
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Instructions

This lab manual is for used by students at the School of Informatics and Applied Mathematics, Universiti Malaysia Terengganu (UMT) only. Not allowed to print and distribute this manual without official permission of the author.

Please follow the step by step as described in the manual. Tick (√) each step has been created and write the conclusion of each activity has been completed.

Conclusion or result of each activity must be written in a file named according to the following format:
[nomatrik] _ [LabX]. docx. Replace the 'X' with your lab session. Examples of correct file name is 'UK12345_Lab1.docx'.

Please prepare the assignments with your individual effort without any 'copy-paste' from other parties.

Best of luck!

JAVASCRIPT, HTML, AND CSS

Objective:

1. Students are able to combine HTML, CSS, and Javascript, in order to develop an interactive website.
2.

Explanation:

We should realize, the HTML, CSS, and JavaScript each of them is playing a completely difference role and they work seamlessly together.

1. HTML provides the basic structure of sites, which is enhanced and modified by other technologies like CSS and JavaScript.
2. CSS is used to control presentation, formatting, and layout.
3. JavaScript is used to control the behavior of different elements.

HTML & CSS

HTML provides the raw tools needed to structure content on a website. CSS, on the other hand, helps to style this content so it appears to the user the way it was intended to be seen. These languages are kept separate to ensure websites are built correctly before they're reformatted.

If HTML is the drywall, CSS is the paint.

Whereas HTML was the basic structure of your website, CSS is what gives your entire website its style. Those slick colors, interesting fonts, and background images? All thanks to CSS. This language affects the entire mood and tone of a web page, making it an incredibly powerful tool -- and an important skill for web developers to learn. It's also what allows websites to adapt to different screen sizes and device types.

JAVASCRIPT

In short, JavaScript is a programming language that lets web developers design interactive sites. Most of the dynamic behavior you'll see on a web page is thanks to JavaScript, which augments a browser's default controls and behaviors.

All images can be downloaded from: https://bit.ly/3869ToU

Activity 1

Create a Transparent Image Text
Responsive Image with Transparent Text

Awesome view - Batu Buruk Beach

"being there on 4/8/2017 with my friends. it's a beautiful beach and had an awesome viewing. There is 5 couple swings and also if not mistaken 3 single swings along the beach. I am being there on sunny day that make the view more amazing. it's really good for seaside walking and relaxing place.also had street food and its really lively place on weekend.

Step 1) Add HTML:

```
<h2>Responsive Image with Transparent Text</h2>

<div class="container">
  <img src="Pantai_Batu_Buruk.jpg" alt="Batu Buruk beach" style="width:100%;">
  <div class="content">
    <h1>Awesome view - Batu Buruk Beach</h1>
    <p>   "being there on 4/8/2017 with my friends. it's a beautiful beach and had an awesome viewing.
       There is 5 couple swings and also if not mistaken 3 single swings along the beach.
       I am being there on sunny day that make the view more amazing. it's really good for seaside walking and
       relaxing place.also had street food and its really lively place on weekend.
    </p>
  </div>
</div>
```

"being there on 4/8/2017 with my friends. it's a beautiful beach and had an awesome viewing.
There are 5 couple swings and also if not mistaken 3 single swings along the beach.
I am being there on sunny day that make the view more amazing. It's really good for seaside
walking and relaxing place. It also had street food and it's lively place on weekend.

Step 2) Add CSS:

```
* {
  box-sizing: border-box;
}

body {
  font-family: Arial;
  font-size: 17px;
}

.container {
    position: relative;
    max-width: 800px; /* Maximum width */
    margin: 0 auto; /* Center it */
}
```

```
.container img {vertical-align: middle;}

  .container .content {
    position: absolute; /* Position the background text */
    bottom: 0; /* At the bottom. Use top:0 to append it to the top */
    background: ▢rgb(0, 0, 0); /* Fallback color */
    background: ▢rgba(0, 0, 0, 0.5); /* Black background with 0.5 opacity */
    color: ■#f1f1f1; /* Grey text */
    width: 100%; /* Full width */
    padding: 20px; /* Some padding */
  }
```
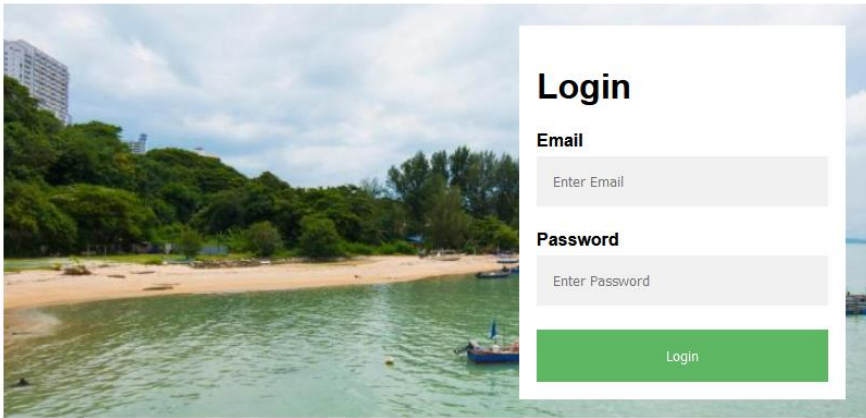
Conclusion and Result:
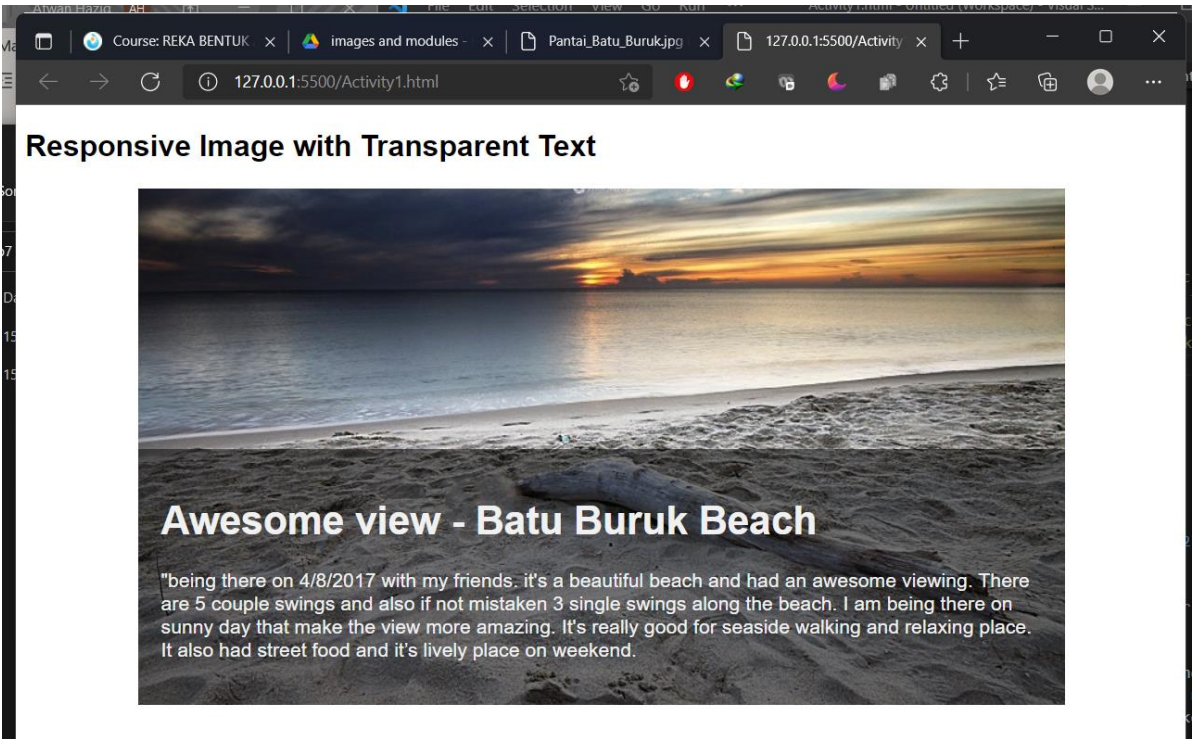
Now I can make Responsive image with transparent text. The text was in Absolute position, makes it at the top of the image.

Activity 2

Create a Form on Image

This example creates a form on a responsive image. Try to resize the browser window to see how it always will cover the whole width of the screen, and that it scales nicely on all screen sizes.

Step 1. Add HTML :

```html
<div class="bg-img">
  <form action="/action_page.php" class="container">
    <h1>Login</h1>

    <label for="email"><b>Email</b></label>
    <input type="text" placeholder="Enter Email" name="email" required>

    <label for="psw"><b>Password</b></label>
    <input type="password" placeholder="Enter Password" name="psw" required>

    <button type="submit" class="btn">Login</button>
  </form>
</div>

<p>This example creates a form on a responsive image. Try to resize the browser window to see how
it always will cover the whole width of the screen, and that it scales nicely on all screen sizes.</p>
```
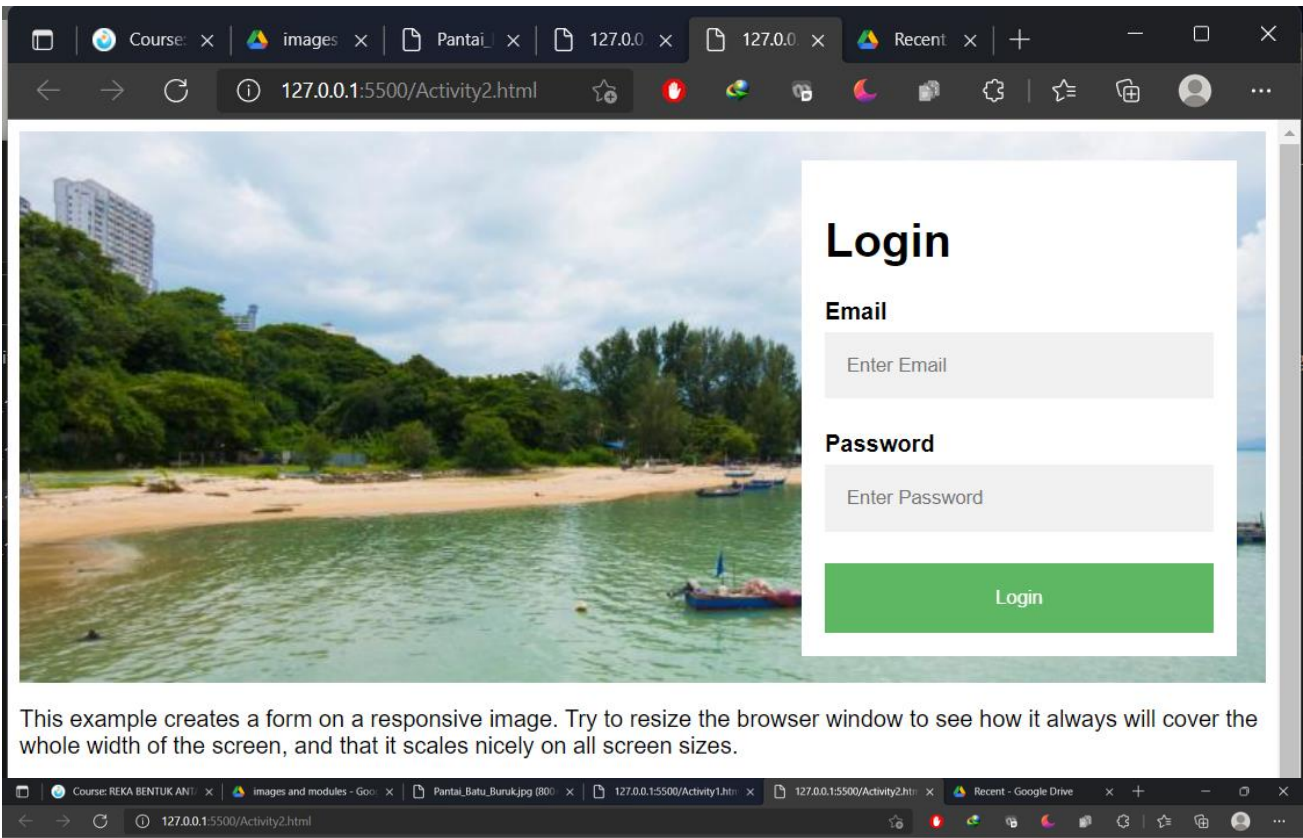
The first result will be:

Step 2. Add CSS

```css
body, html {
  height: 100%;
  font-family: Arial, Helvetica, sans-serif;
}

* {
  box-sizing: border-box;
}

.bg-img {
  /* The image used */
  background-image: url("beach-kuala-terengganu.jpg");

  min-height: 380px;

  /* Center and scale the image nicely */
  background-position: center;
  background-repeat: no-repeat;
  background-size: cover;
  position: relative;
}
```

```css
/* Add styles to the form container */
.container {
  position: absolute;
  right: 0;
  margin: 20px;
  max-width: 300px;
  padding: 16px;
  background-color: ■white;
}

/* Full-width input fields */
input[type=text], input[type=password] {
  width: 100%;
  padding: 15px;
  margin: 5px 0 22px 0;
  border: none;
  background: ■#f1f1f1;
}

input[type=text]:focus, input[type=password]:focus {
  background-color: ■#ddd;
  outline: none;
}
```

```css
/* Set a style for the submit button */
.btn {
  background-color: ■#4CAF50;
  color: ■white;
  padding: 16px 20px;
  border: none;
  cursor: pointer;
  width: 100%;
  opacity: 0.9;
}

.btn:hover {
  opacity: 1;
}
```

Conclusion and Result:

Before adding CSS:

Login

Email [Enter Email]   Password [Enter Password]   [Login]

This example creates a form on a responsive image. Try to resize the browser window to see how it always will cover the whole width of the screen, and that it scales nicely on all screen sizes.

After adding CSS:

This example creates a form on a responsive image. Try to resize the browser window to see how it always will cover the whole width of the screen, and that it scales nicely on all screen sizes.

This example creates a form on a responsive image. Try to resize the browser window to see how it always will cover the whole width of the screen, and that it scales nicely on all screen sizes.

The webpage used 100% of the screen width, making it will use all the screen width depending on it's sizes.

Activity 3
Create a Side Navigation Buttons

Step 1. Add this HTML:

```html
<div id="mySidenav" class="sidenav">
    <a href="#" id="about">About</a>
    <a href="#" id="blog">Blog</a>
    <a href="#" id="projects">Projects</a>
    <a href="#" id="contact">Contact</a>
</div>

<div style="margin-left:80px;">
 <h2>Contoh Side-navigation Buttons</h2>
 <p>Hover over the buttons in the left side navigation to open them.</p>
</div>
```


About Blog Projects Contact

Contoh Side-navigation Buttons

Hover over the buttons in the left side navigation to open them.

Step 2. Add the CSS:

```
<meta name="viewport" content="width=device-width, initial-scale=1">
<style>
#mySidenav a {
  position: absolute;
  left: -80px;
  transition: 0.3s;
  padding: 15px;
  width: 100px;
  text-decoration: none;
  font-size: 20px;
  color: ■white;
  border-radius: 0 5px 5px 0;
}

#mySidenav a:hover {
  left: 0;
}
```

```
#about {
  top: 20px;
  background-color: ■#4CAF50;
}

#blog {
  top: 80px;
  background-color: ■#2196F3;
}

#projects {
  top: 140px;
  background-color: ■#f44336;
}

#contact {
  top: 200px;
  background-color: ■#555
}
</style>
```
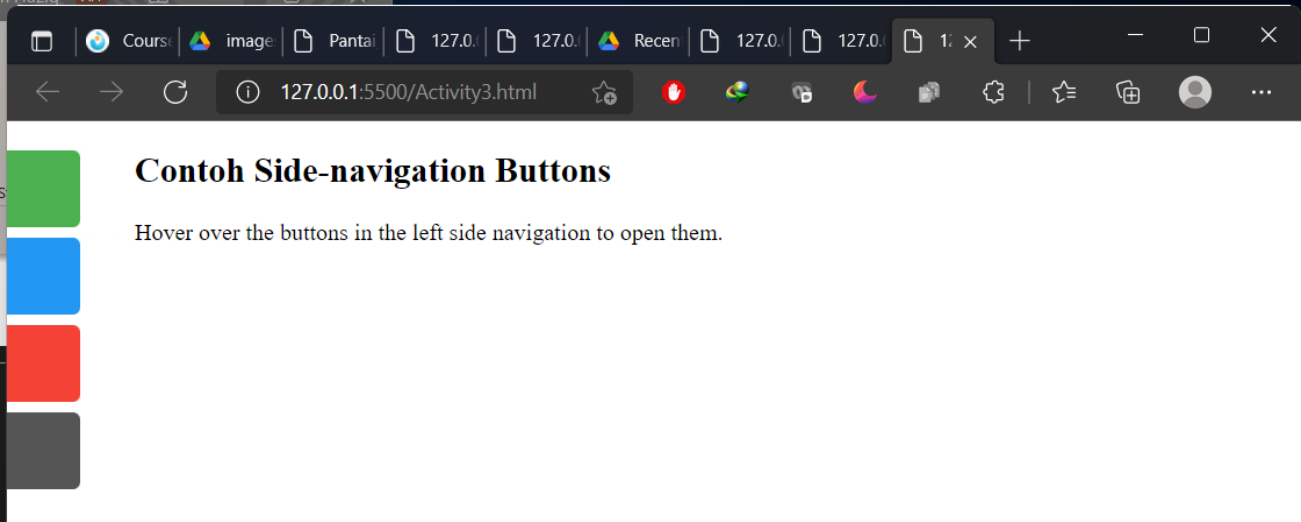
Conclusion and Result:

Before adding CSS:
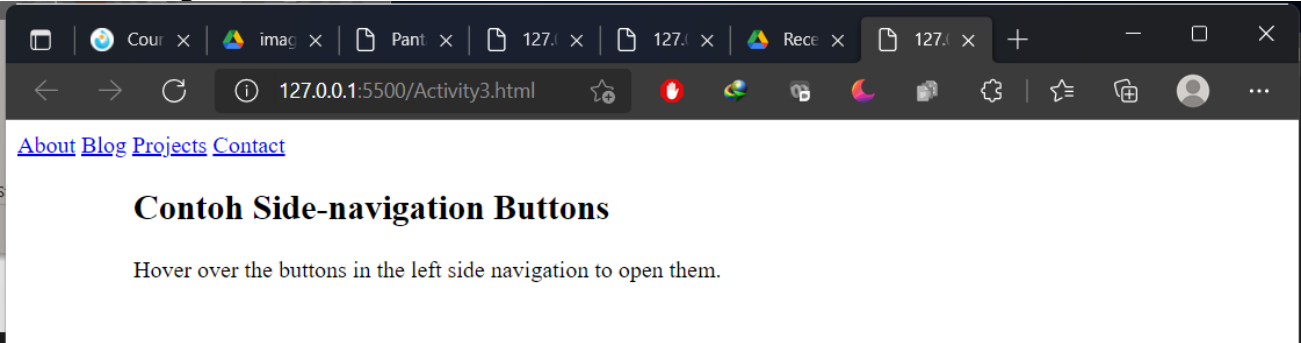
After adding CSS:

UwU, nice color side-navigation bar appeared!

When hovered:
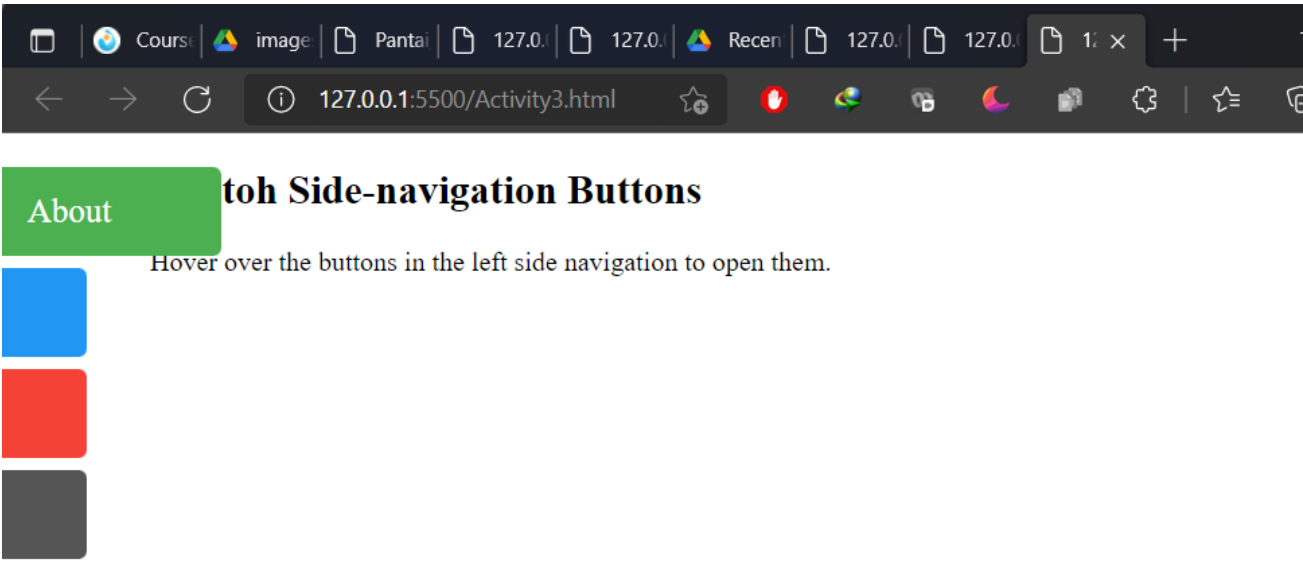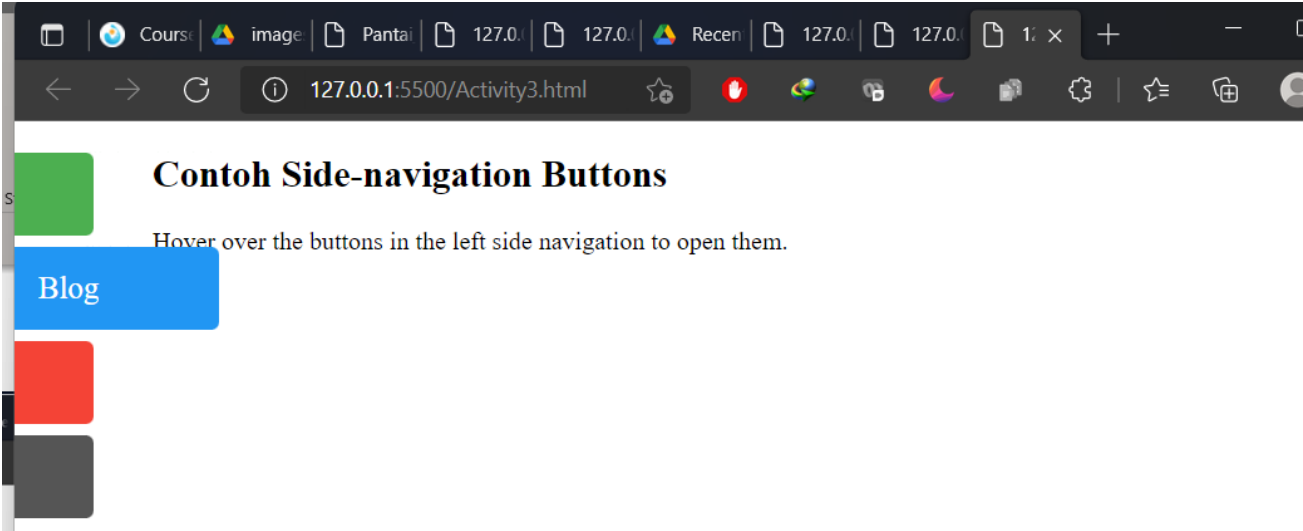
It also overlaps the website, because of it's position is absolute.

Activity 4
Create Automatic Slideshow

Step 1) Add HTML:

```html
<div class="slideshow-container">

<div class="mySlides fade">
  <div class="numbertext">1 / 3</div>
  <img src="img_nature_wide.jpg" style="width:100%">
  <div class="text">Caption Text</div>
</div>

<div class="mySlides fade">
  <div class="numbertext">2 / 3</div>
  <img src="img_snow_wide.jpg" style="width:100%">
  <div class="text">Caption Two</div>
</div>

<div class="mySlides fade">
  <div class="numbertext">3 / 3</div>
  <img src="img_mountains_wide.jpg" style="width:100%">
  <div class="text">Caption Three</div>
</div>

</div>
<br>

<div style="text-align:center">
  <span class="dot"></span>
  <span class="dot"></span>
  <span class="dot"></span>
</div>
```

Step 2) Add CSS:

```
<style>
* {box-sizing: border-box;}
body {font-family: Verdana, sans-serif;}
.mySlides {display: none;}
img {vertical-align: middle;}

/* Slideshow container */
.slideshow-container {
  max-width: 1000px;
  position: relative;
  margin: auto;
}

/* Caption text */
.text {
  color: #f2f2f2;
  font-size: 15px;
  padding: 8px 12px;
  position: absolute;
  bottom: 8px;
  width: 100%;
  text-align: center;
}
```

```
/* Number text (1/3 etc) */
.numbertext {
  color: #f2f2f2;
  font-size: 12px;
  padding: 8px 12px;
  position: absolute;
  top: 0;
}

/* The dots/bullets/indicators */
.dot {
  height: 15px;
  width: 15px;
  margin: 0 2px;
  background-color: #bbb;
  border-radius: 50%;
  display: inline-block;
  transition: background-color 0.6s ease;
}

.active {
  background-color: #717171;
}
```

```
/* Fading animation */
.fade {
  -webkit-animation-name: fade;
  -webkit-animation-duration: 1.5s;
  animation-name: fade;
  animation-duration: 1.5s;
}

@-webkit-keyframes fade {
  from {opacity: .4}
  to {opacity: 1}
}

@keyframes fade {
  from {opacity: .4}
  to {opacity: 1}
}

/* On smaller screens, decrease text size */
@media only screen and (max-width: 300px) {
  .text {font-size: 11px}
}
```

Step 3) Add Javascript:

```
<script>
var slideIndex = 0;
showSlides();

function showSlides() {
  var i;
  var slides = document.getElementsByClassName("mySlides");
  var dots = document.getElementsByClassName("dot");
  for (i = 0; i < slides.length; i++) {
    slides[i].style.display = "none";
  }
  slideIndex++;
  if (slideIndex > slides.length) {slideIndex = 1}
  for (i = 0; i < dots.length; i++) {
    dots[i].className = dots[i].className.replace(" active", "");
  }
  slides[slideIndex-1].style.display = "block";
  dots[slideIndex-1].className += " active";
  setTimeout(showSlides, 2000); // Change image every 2 seconds
}
</script>
```

Conclusion and Result:

Image 1:
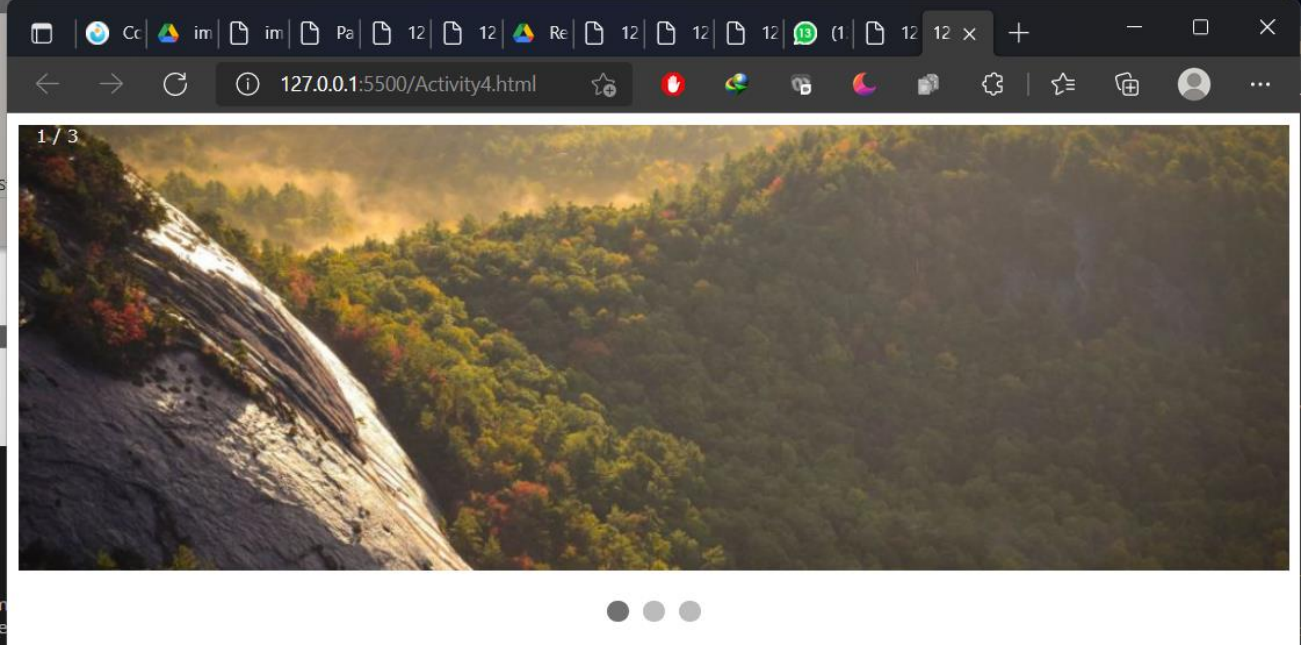
Image 2:
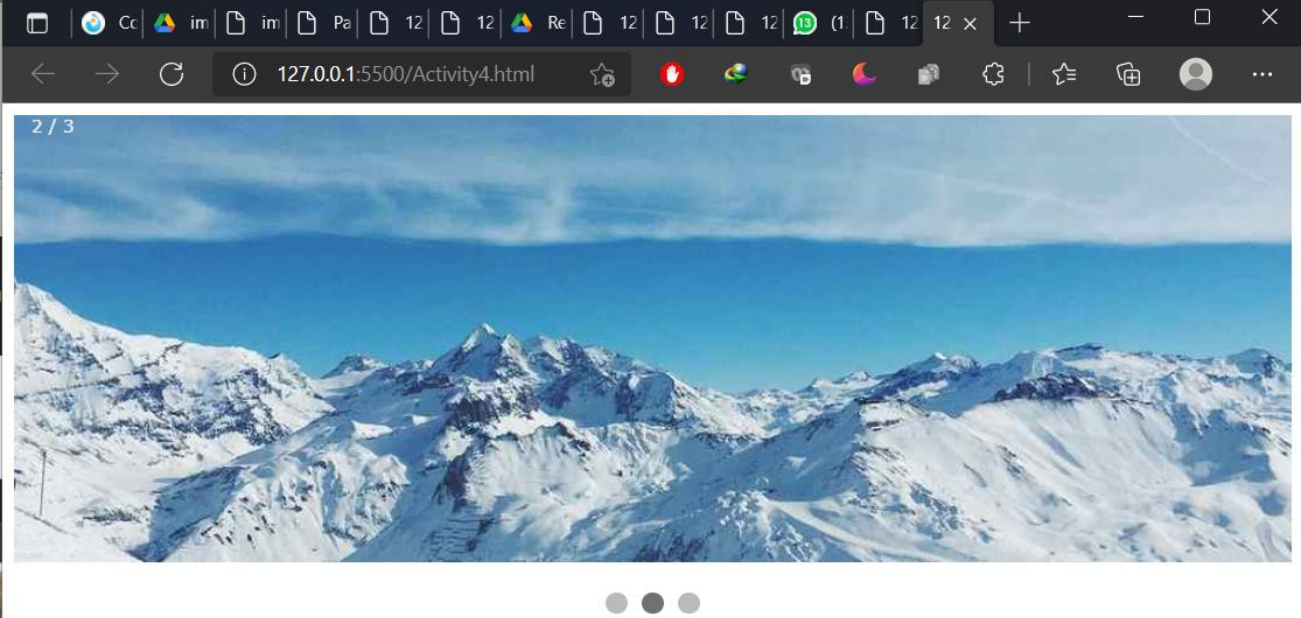
Image 3 on transition:
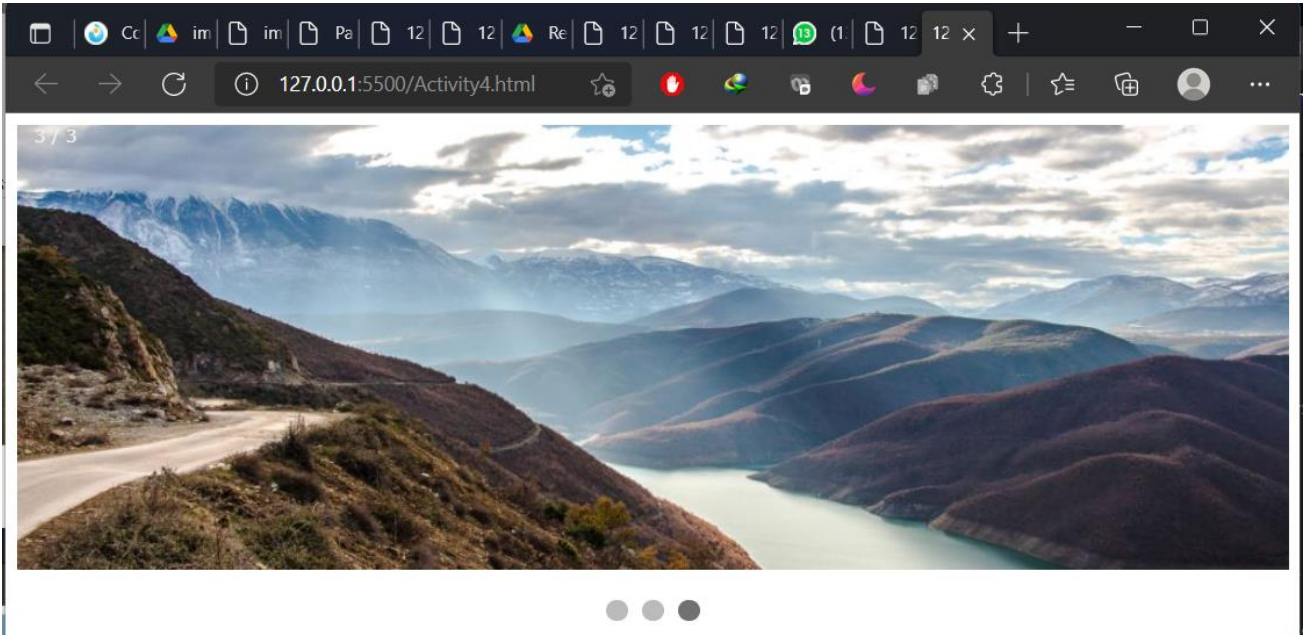
The pictures keep sliding on it's own and keep transition fading from opacity 0.4 to 1 when new image appeared. It uses javascript for the dots and auto-transition to play the slides. While uses CSS for it's style and animation.

Activity 5
Create Profile Card

Step 1) Add HTML:

```
<h2 style="text-align:center">User Profile Card</h2>

<div class="card">
  <img src="mrbean.jpg" alt="Mr Bean" style="width:100%">
  <h1>Rowan Atkinson</h1>
  <p class="title">CEO & British sitcom creator</p>
  <p>Oxford University</p>
  <div style="margin: 24px 0;">
    <a href="#"><i class="fa fa-dribbble"></i></a>
    <a href="#"><i class="fa fa-twitter"></i></a>
    <a href="#"><i class="fa fa-linkedin"></i></a>
    <a href="#"><i class="fa fa-facebook"></i></a>
  </div>
  <p><button>Contact</button></p>
</div>
```

Step 2) Add CSS:

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```
<link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.min.css">

<style>
.card {
  box-shadow: 0 4px 8px 0 ☐rgba(0, 0, 0, 0.2);
  max-width: 300px;
  margin: auto;
  text-align: center;
  font-family: arial;
}

.title {
  color: ☐grey;
  font-size: 18px;
}
```

```
button {
  border: none;
  outline: 0;
  display: inline-block;
  padding: 8px;
  color: ■white;
  background-color: ☐#000;
  text-align: center;
  cursor: pointer;
  width: 100%;
  font-size: 18px;
}

a {
  text-decoration: none;
  font-size: 22px;
  color: ☐black;
}

button:hover, a:hover {
  opacity: 0.7;
}

</style>
```

Conclusion and Result:
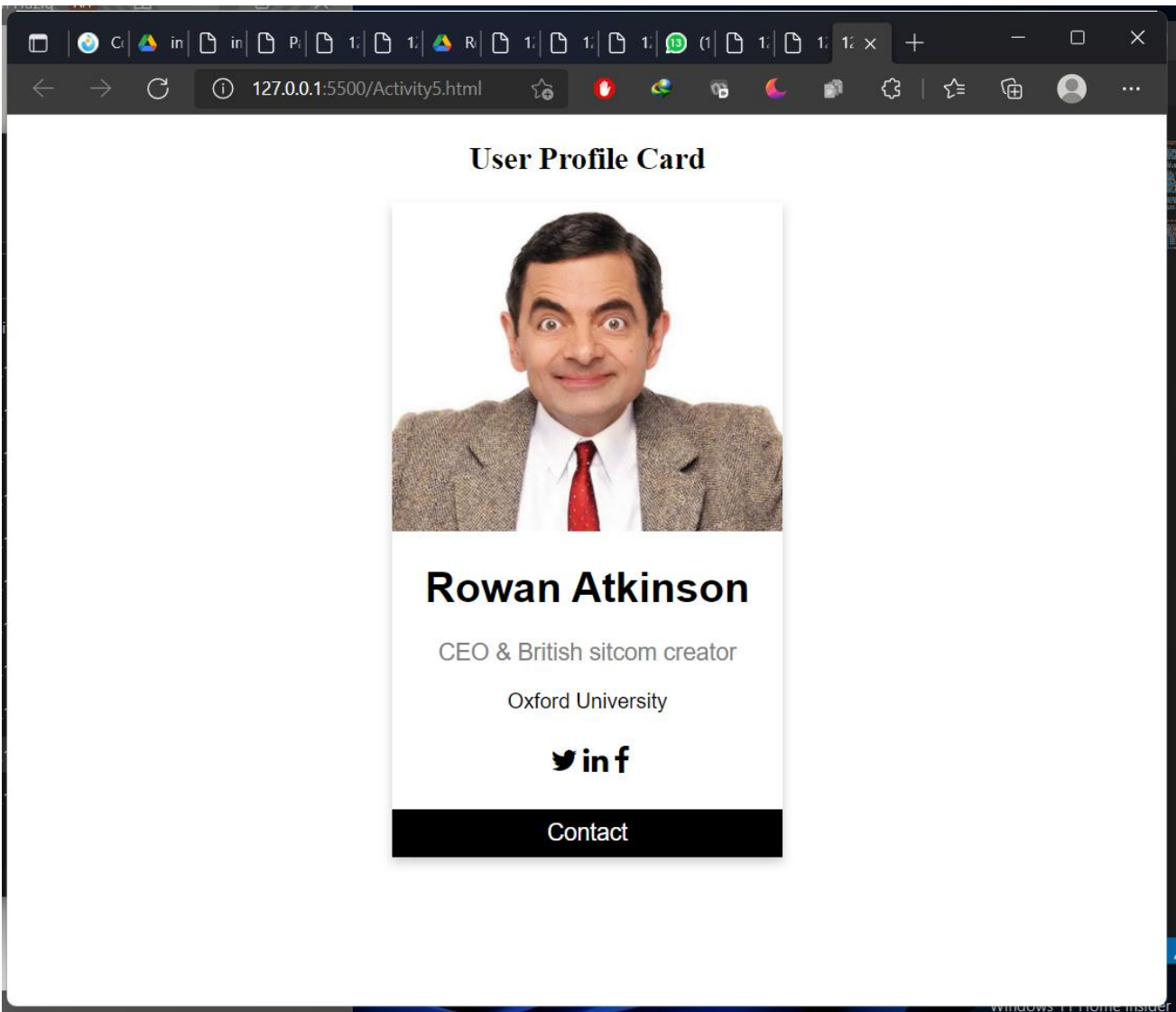
UwU, nice profile card, it uses 'card' class where we set it as a box with shadow, text-align center, and Arial font.

Also when I hover the button, the button's color changed into grey color.

Activity 6
Create Progress Bar

Learn how to create a progress bar using JavaScript.

Step 1) Add HTML:

```html
<h1>Progress Bar</h1>

<div id="myProgress">
  <div id="myBar"></div>
</div>

<br>
<button onclick="move()">Click Me</button>
```

Step 2) Add CSS:

```
<style>
#myProgress {
  width: 100%;
  background-color: #ddd;
}

#myBar {
  width: 1%;
  height: 30px;
  background-color: #4CAF50;
}
</style>
```

Step 3) Add Javascript:

```
<script>
var i = 0;
function move() {
  if (i == 0) {
    i = 1;
    var elem = document.getElementById("myBar");
    var width = 1;
    var id = setInterval(frame, 10);
    function frame() {
      if (width >= 100) {
        clearInterval(id);
        i = 0;
      } else {
        width++;
        elem.style.width = width + "%";
      }
    }
  }
}
</script>
```

Conclusion and Result:

Before click "click me" button:
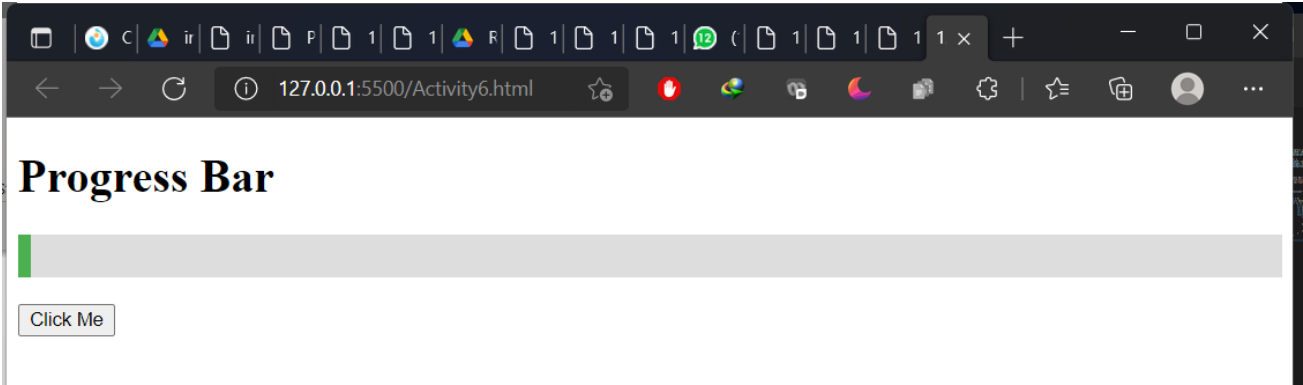
After:
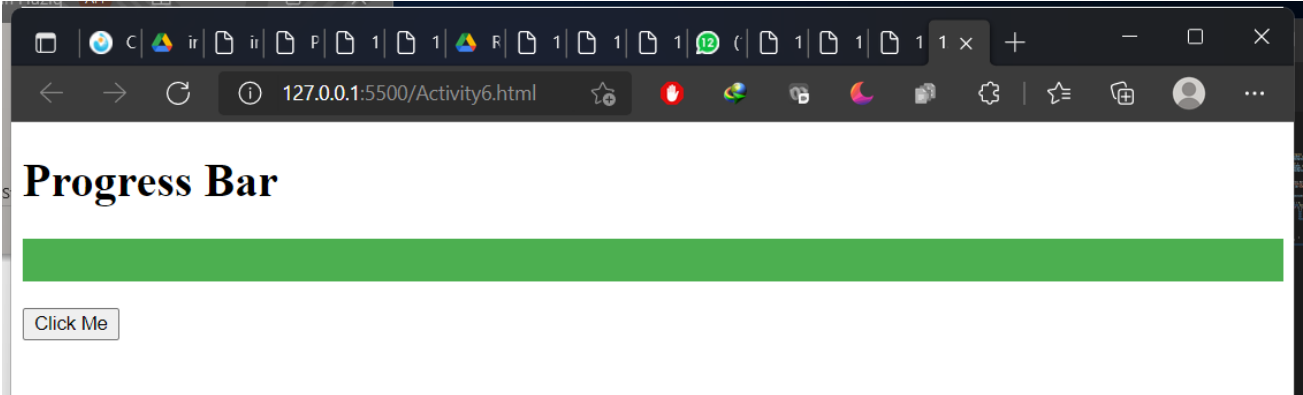
The progress bar transition from 1% to 100% when I click the "click me" button. The move() function will executed using JavaScript when I clicked the button.

Activity 6
Create A Collapsible

For instance, click the button to toggle between showing and hiding the collapsible content.

Step 1) Add HTML:

```html
<h2>Universiti Malaysia Terengganu</h2>

<button type="button" class="collapsible">Open its history</button>
<div class="content">
    <p>Universiti Malaysia Terengganu began as Universiti Pertanian Malaysia's Centre for Fisheries and
    Marine Science, located at Mengabang Telipot, Kuala Terengganu. It provided facilities for both students and
    lecturers from
    the Fisheries and Marine Science programmes to conduct their practical sessions and also researches.</p>
    <p>Eventually, the Faculty of Fisheries and Marine Science of Universiti Pertanian Malaysia (UPM) in Serdang
    was transferred to Kuala Terengganu, and the Centre transformed into a branch campus,
    being renamed Universiti Pertanian Malaysia Terengganu (UPMT) in June 1996.
    The name of the faculty was also changed to the Faculty of Applied Sciences and Technology.
    Also formed were the Faculty of Science and Professional Literature and the Matriculation Centre. </p>
</div>
```

Text :
<p>Universiti Malaysia Terengganu began as Universiti Pertanian Malaysia's Centre for Fisheries and Marine Science, located at Mengabang Telipot, Kuala Terengganu. It provided facilities for both students and lecturers from the Fisheries and Marine Science programmes to conduct their practical sessions and also researches. </p>

<p>Eventually, the Faculty of Fisheries and Marine Science of Universiti Pertanian Malaysia (UPM) in Serdang was transferred to Kuala Terengganu, and the Centre transformed into a branch campus, being renamed Universiti Pertanian Malaysia Terengganu (UPMT) in June 1996. The name of the faculty was also changed to the Faculty of Applied Sciences and Technology. Also formed were the Faculty of Science and Professional Literature and the Matriculation Centre. </p>

Step 2) Add CSS:

```css
<style>
.collapsible {
  background-color: #777;
  color: white;
  cursor: pointer;
  padding: 18px;
  width: 100%;
  border: none;
  text-align: left;
  outline: none;
  font-size: 15px;
}

.active, .collapsible:hover {
  background-color: #555;
}

.content {
  padding: 0 18px;
  display: none;
  overflow: hidden;
  background-color: #f1f1f1;
}
</style>
```

Step 3) Add Javascript:

```
<script>
var coll = document.getElementsByClassName("collapsible");
var i;

for (i = 0; i < coll.length; i++) {
  coll[i].addEventListener("click", function() {
    this.classList.toggle("active");
    var content = this.nextElementSibling;
    if (content.style.display === "block") {
      content.style.display = "none";
    } else {
      content.style.display = "block";
    }
  });
}
</script>
```
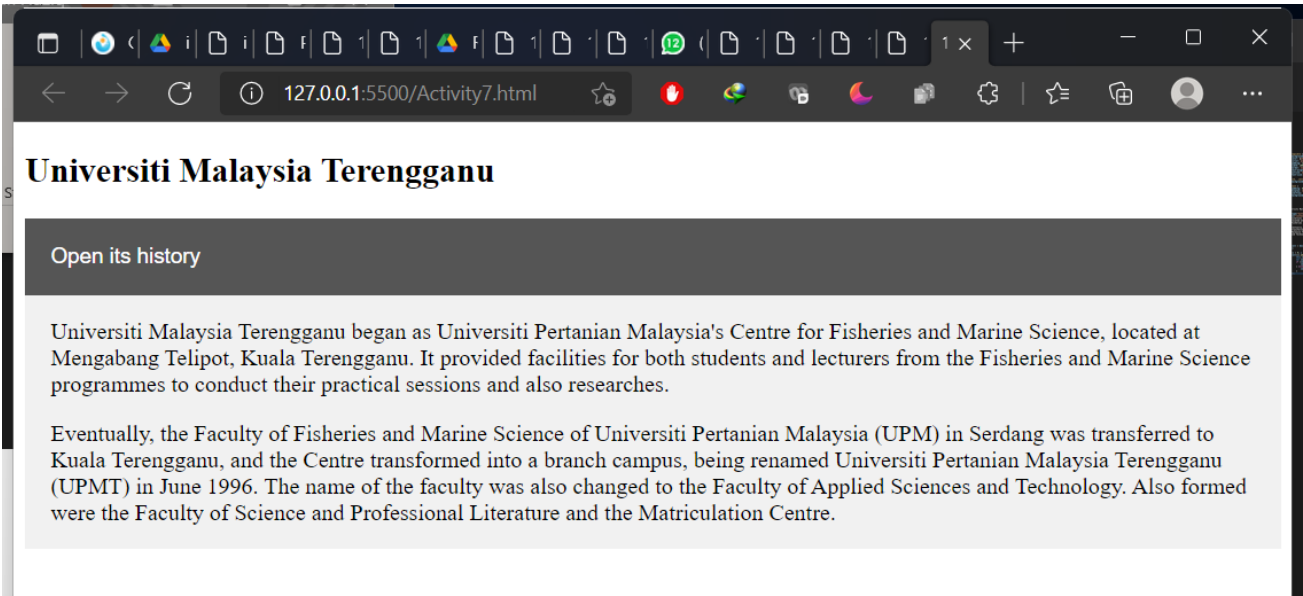
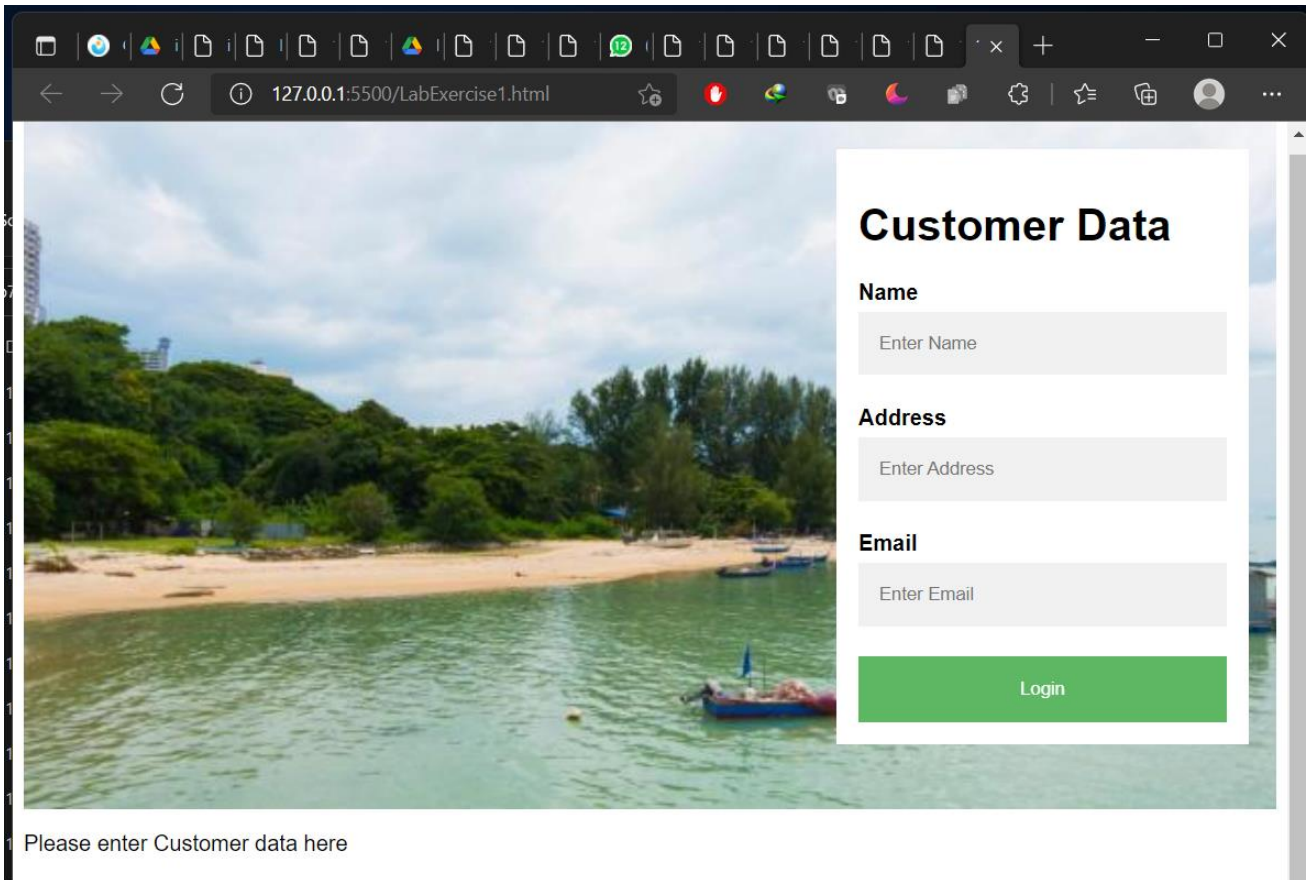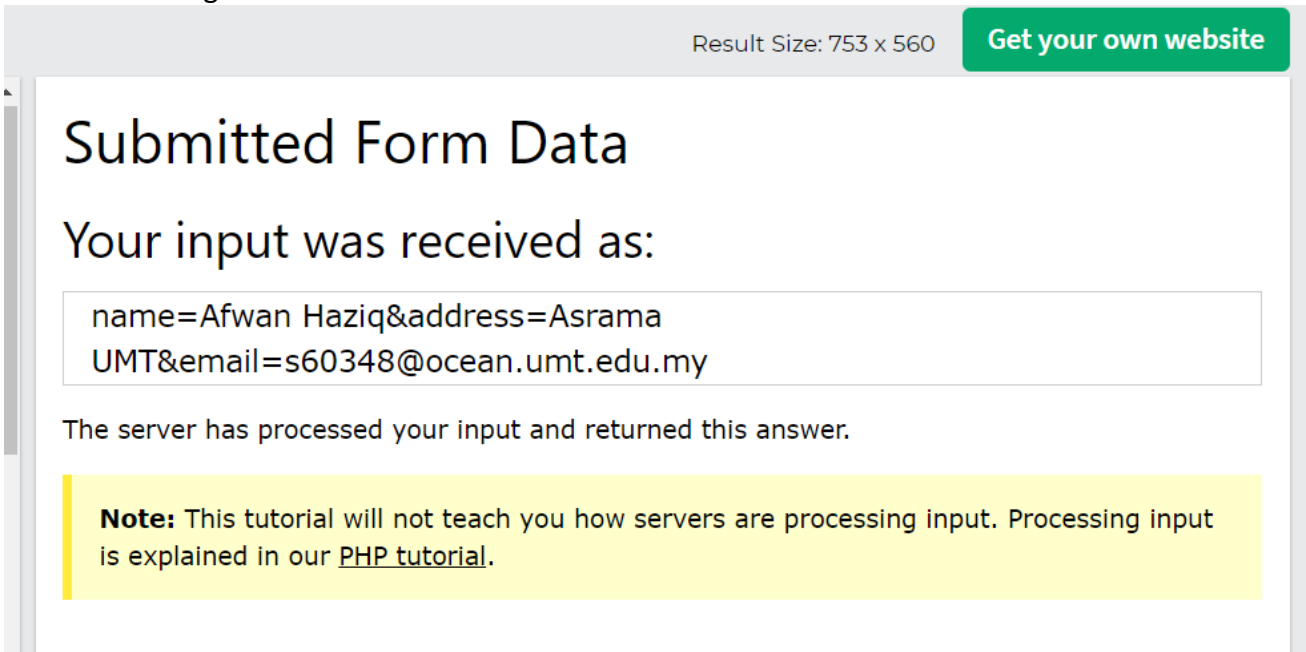## Conclusion and Result:

Before clicked the button (hidden):
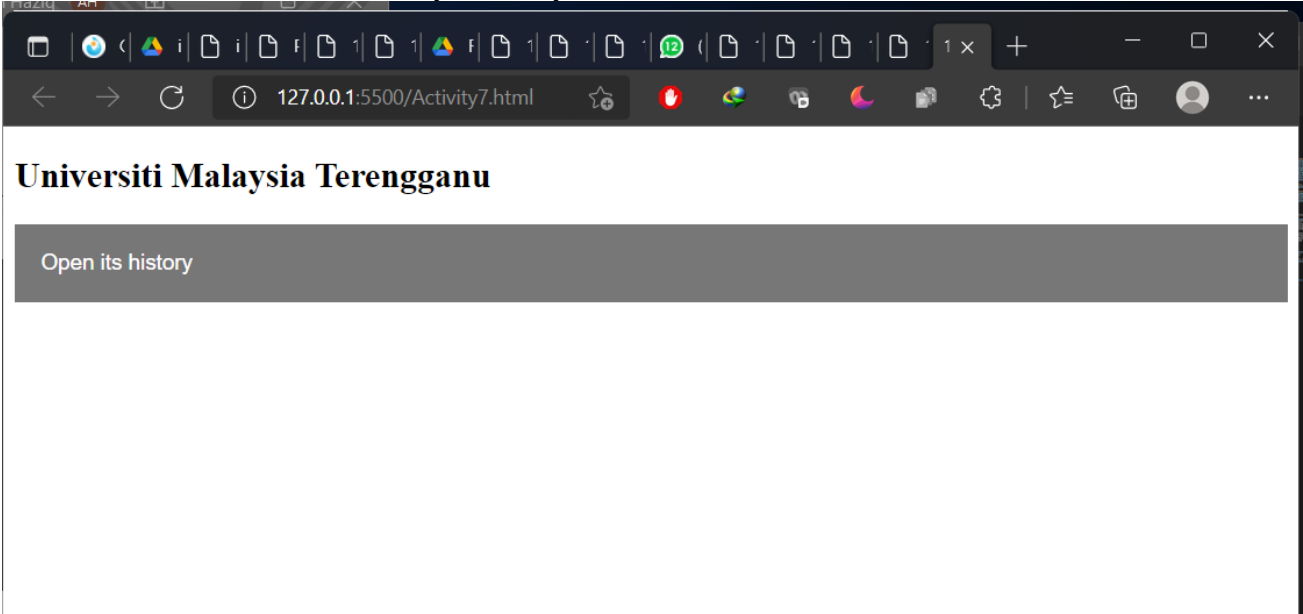
After:

Lab 7 Exercise:

1. Create a form for inputing costumer data (including address and email) with picture as a background.

After submitting the data into w3school website:

2. From activity 4, please create a slideshow of some Terengganu market's images. After that create a link for each image to the website/blog/news which has a content about the detail of market.
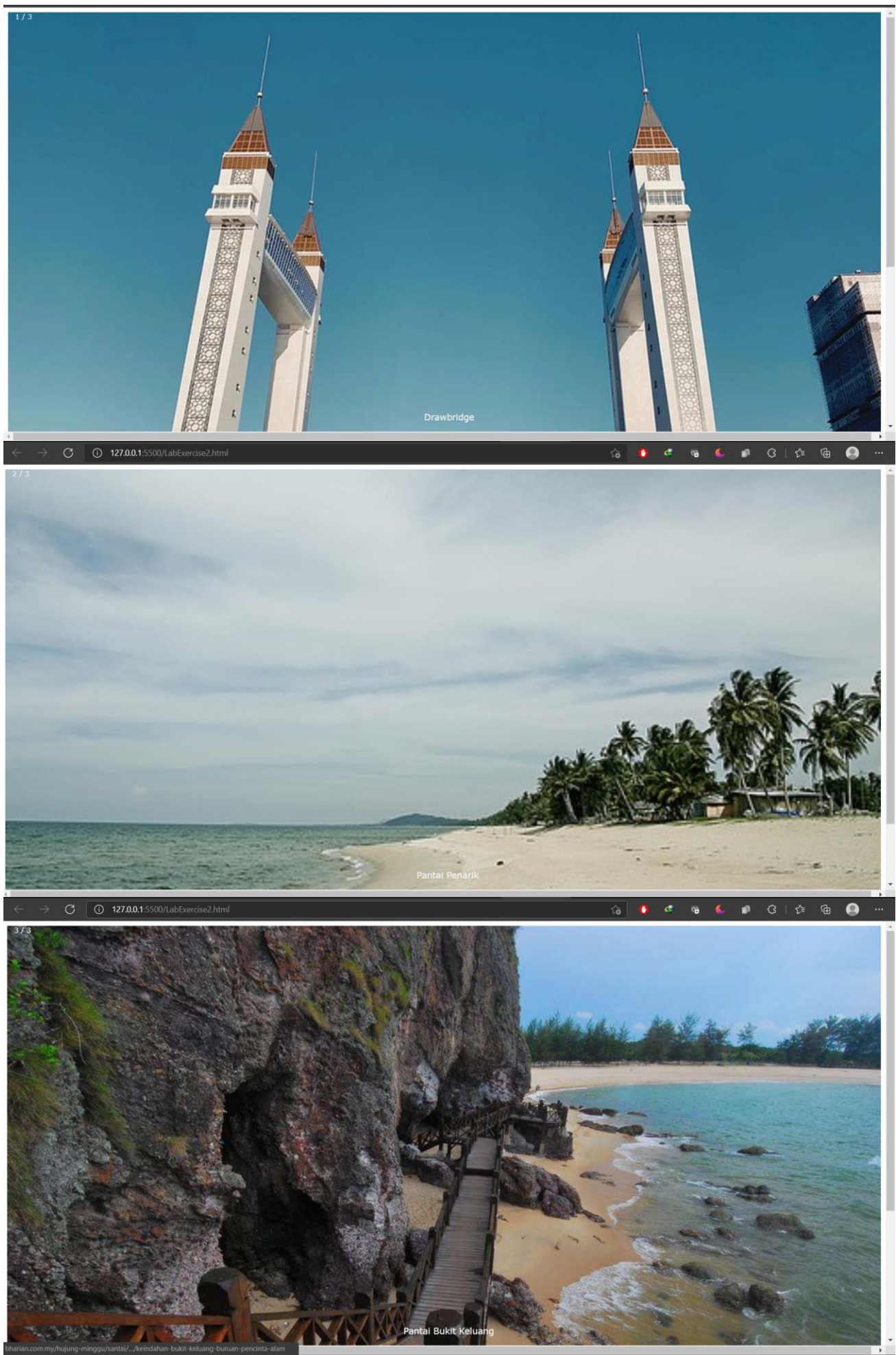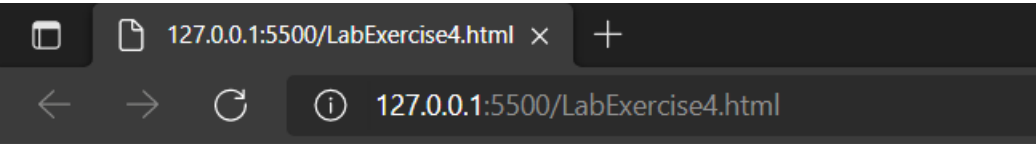
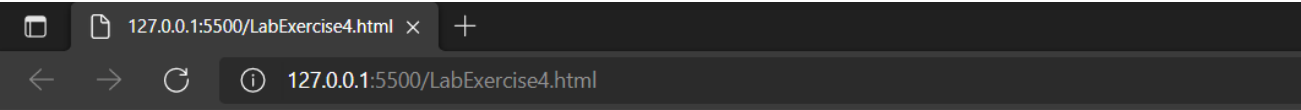3. Create your own profile card. Make some modifications.
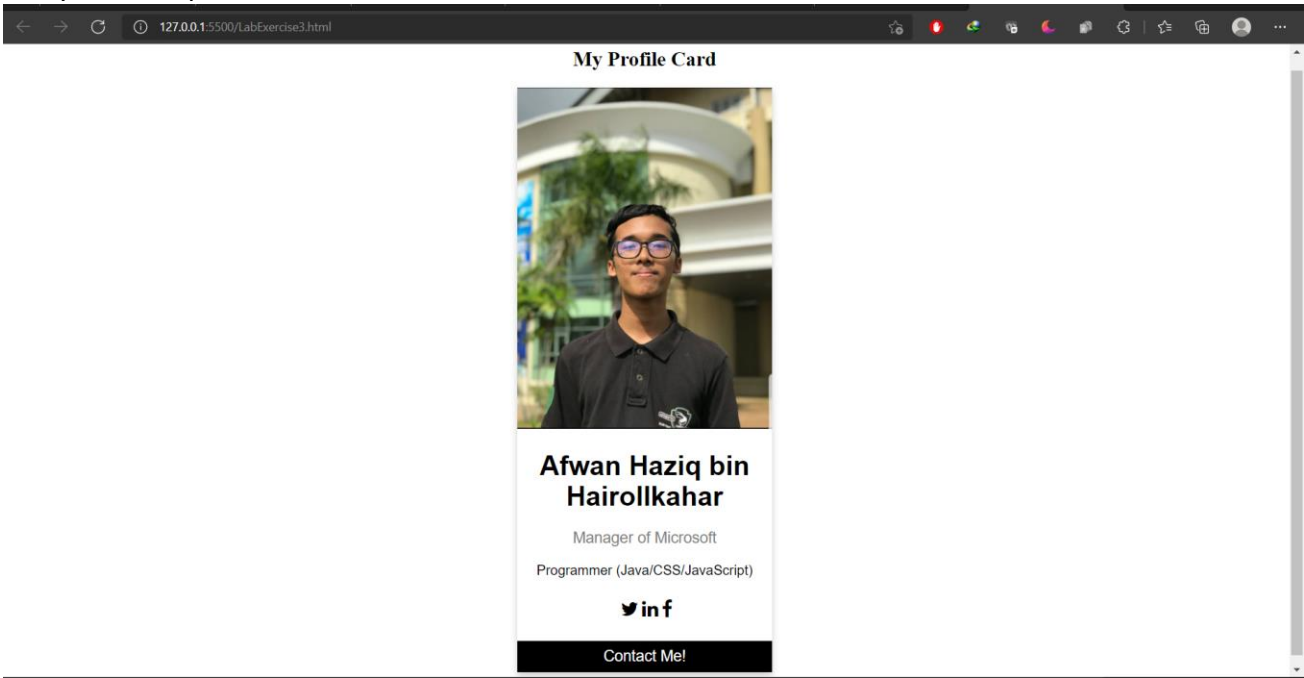
4. Modify activity 6, add labels to indicate how far the user is in the process, add a new element inside (or outside) the progress bar:
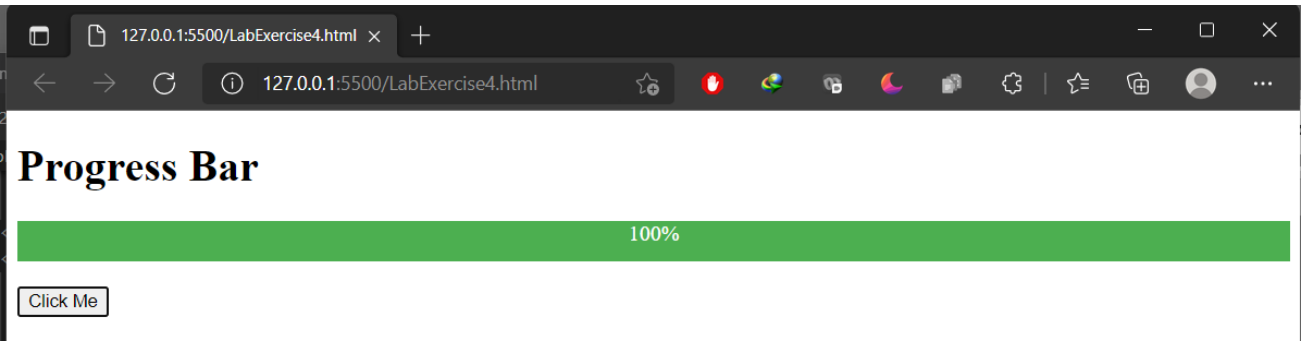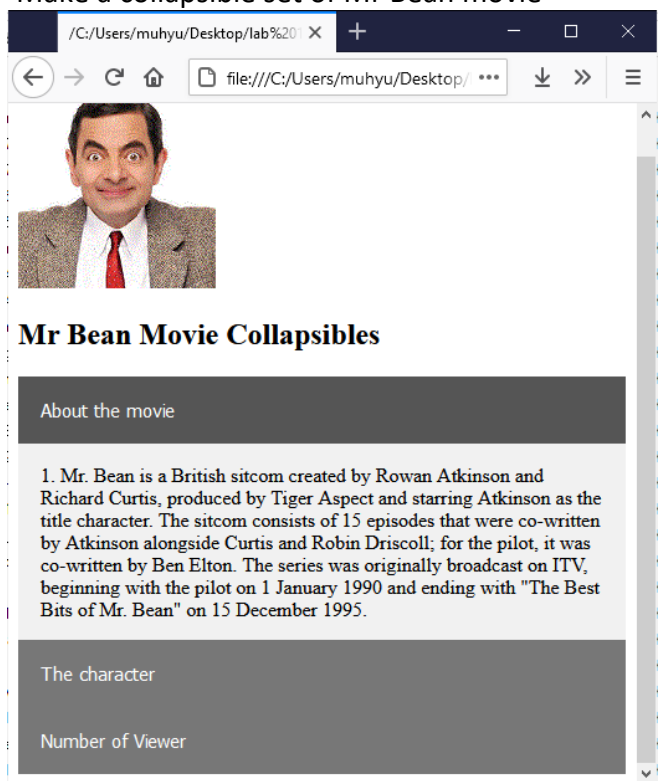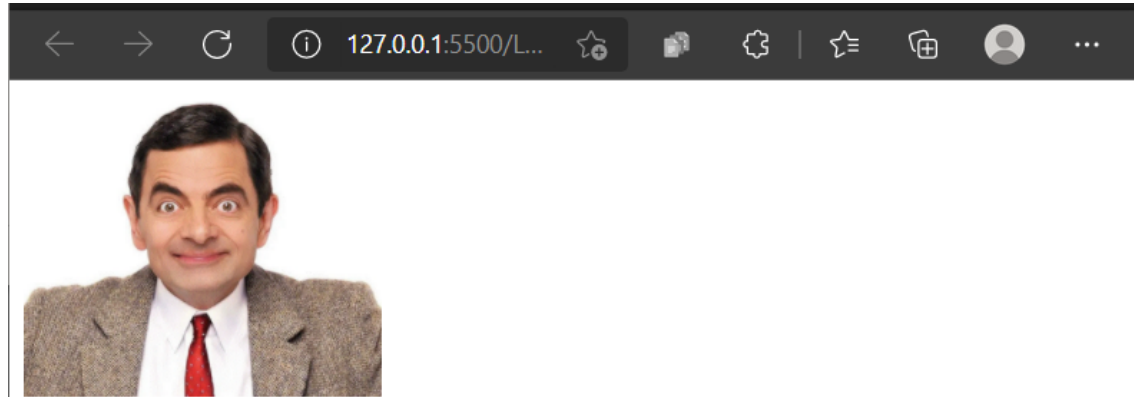

Results:

5. Make a collapsible set of Mr Bean movie

Please use these texts:

1. (About the movie) Mr. Bean is a British sitcom created by Rowan Atkinson and Richard Curtis, produced by Tiger Aspect and starring Atkinson as the title character. The sitcom consists of 15 episodes that were co-written by Atkinson alongside Curtis and Robin Driscoll; for the pilot, it was co-written by Ben Elton. The series was originally broadcast on ITV, beginning with the pilot on 1 January 1990 and ending with "The Best Bits of Mr. Bean" on 15 December 1995.

2. (The Character) Based on a character originally developed by Atkinson while he was studying for his master's degree at Oxford University, the series centres on Mr. Bean, described by Atkinson as "a child in a grown man's body", as he solves various problems presented by everyday tasks and often causes disruption in the process. The series has been influenced by physical comedy actors such as Jacques Tati and those from early silent films.

3. (Numberof Viewers) During its original five-year run, Mr. Bean met with widespread acclaim and attracted large television audiences. The series was viewed by 18.74 million viewers for the episode "The Trouble with Mr. Bean". The series has also been sold in 245 territories worldwide and has inspired an animated spin-off and two theatrical feature-length films along with Atkinson reprising his role as Mr. Bean for a performance at the London 2012 Summer Olympics opening ceremony, television commercials and several sketches for Comic Relief. Besides the acclaim of the show, another reason for the show's appeal in hundreds of territories worldwide is that the show uses very little intelligible dialogue, making it accessible to people who know little or no English.

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