

## UECS2093/UECS2094 WEB APPLICATION DEVELOPMENT

### LAB 02: HTML5

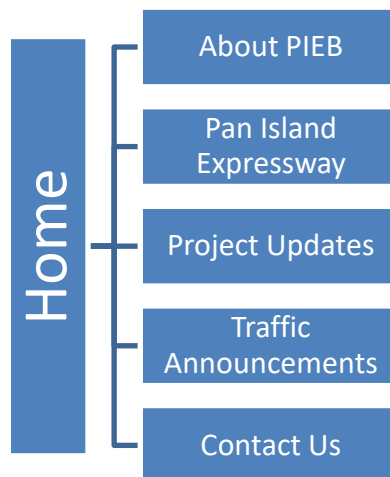
#### Task 1: Teach Yourself HTML5 using W3Schools

In this task, you will self-learn HTML5. Go to <http://www.w3schools.com/html/> to access the online HTML5 tutorial provided by **W3Schools** and try out the tutorials provided. Using the online HTML editor, you can edit the HTML, and click on a button to view the result.

#### Task 2: Create a website that contains several web pages

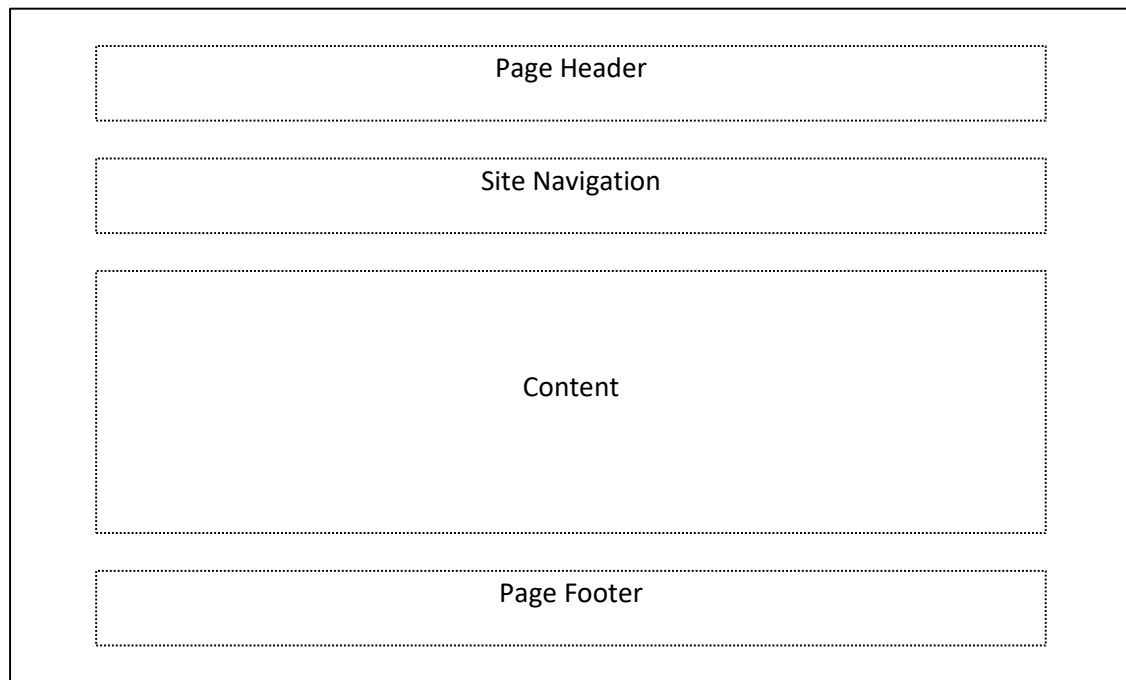
##### Background

A hypothetical company, *Pan Island Expressway Berhad (PIEB)* has been contracted by the government to build and operate the *Pan Island Expressway (PIE)* on the hypothetical island named *Pulau Tiong*. You are required to develop a website for PIEB. The website has the following structure as shown in Figure 2.1.



**Figure 2.1**

All pages in the website share a common layout as shown in Figure 2.2.



**Figure 2.2**

### **Create the Home page (index.php)**

Create a directory named **pie** in your web server's *document root*. Hence, the URL of the PIEB website is accessible at the local URL <http://localhost/pie/>. In the **pie** directory, create a new file named **index.php**.

Take note that we are using the **.php** extension instead of **.html**. This is because we will eventually add in server-side functionalities to the entire website.

# Pan Island Expressway Berhad

- [Home](#)
- [About PIEB](#)
- [Pan Island Expressway](#)
- [Project Updates](#)
- [Traffic Announcements](#)
- [Contact Us](#)



Pan Island Expressway Berhad (PIEB) was established on March 13, 2013 to construct and operate the Pan Island Expressway (PIE) on Pulau Tiang. The PIE is a 25km open-toll expressway that will traverse from north to south along the eastern coast of the island and forms part of the Pulau Tiang Ring Road (PTRR). The expressway will also feature a 5km tunnel that will run underneath the central business district of Myna Town.

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**Figure 2.3: PIEB Home Page**

Figure 2.3 shows the expected output of the PIEB Home Page. Can you identify which are the *page header*, *site navigation*, *content* and *footer*?

**Hint:** Use HTML5 semantic elements for the page header, site navigation and footer of this page.

The URL of the site navigation links are as follows:

- Home - **/pie**
- About PIEB - **/pie/about**
- Pan Island Expressway - **/pie/expressway**
- Project Updates - **/pie/project**
- Traffic Announcements - **/pie/traffic**
- Contact Us - **/pie/contact**

## Create the About PIEB page (about/index.php)

Create a directory named **about** in the **pie** directory. In the **about** directory, create a new file named **index.php**. Hence, the URL of the About PIEB page is accessible at the local URL <http://localhost/pie/about>.

Be reminded that all pages in this site have the same layout as shown in Figure 2.2. Since all pages will share the same layout, the header, site navigation and footer usually have the same content. In this website, we assume that all pages have the same content for the header, site navigation and footer.

Since the header, site navigation and footer have the same content, how do you write the code? Of course you may copy and paste the code from one file to another. However, maintaining them will be a nightmare – imagine having 100 pages in the entire website with repeated content to maintain.

To resolve this, we create separate PHP files that stores common HTML code and have them included using the PHP **include** statement.

Create a directory named **includes** in your web server's *document root*. In this directory, create three files – **header.php**, **navigation.php** and **footer.php**.

- **header.php**
  - If you have done the previous task correctly, you would notice the header section is the **<header>** element including its content and all other HTML elements nested within it. Cut and paste the **<header> ... </header>** code from the Home Page **index.php** file you created in the previous task to the **header.php** file. You will then put the following highlighted code in the Home Page **index.php**.

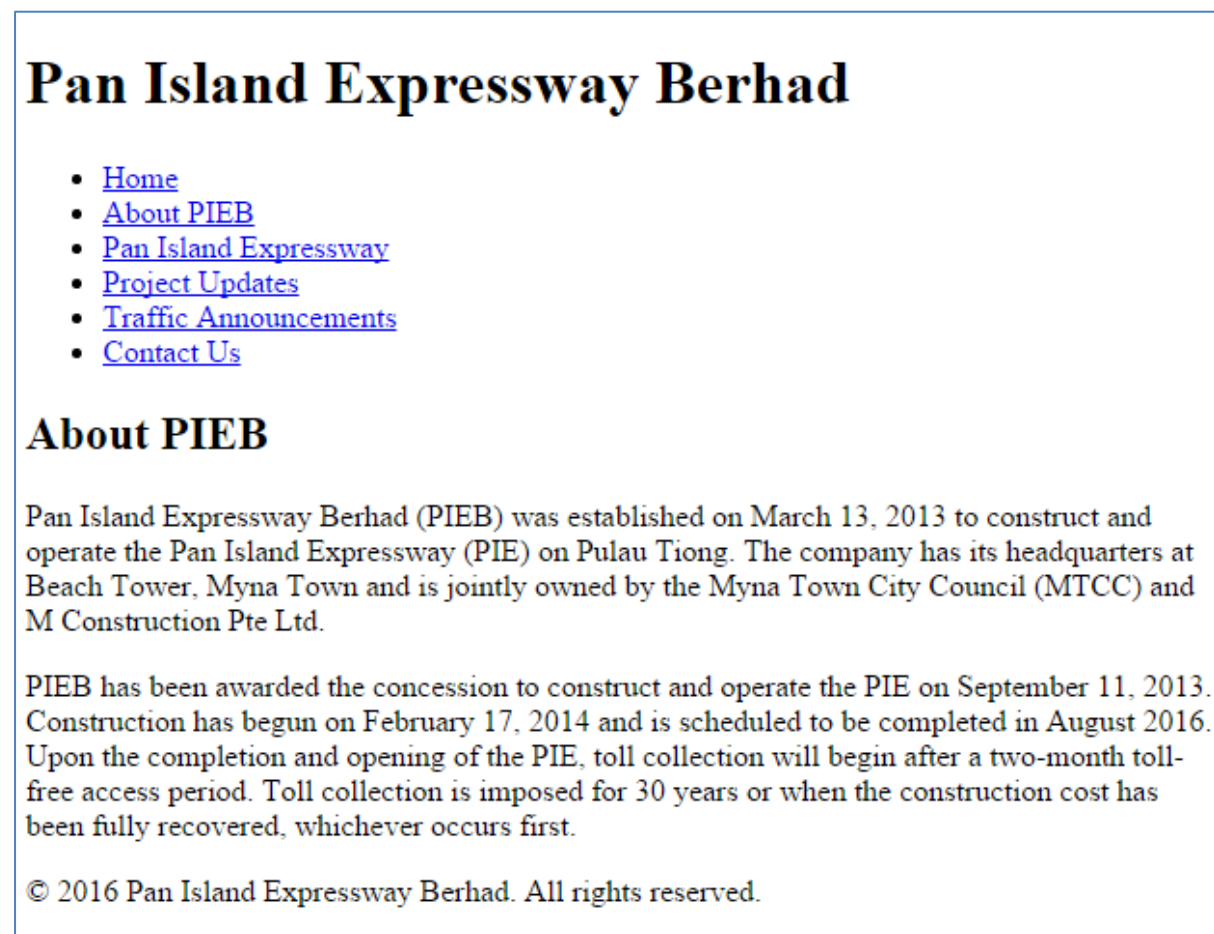
index.php	header.php
<pre>... ... &lt;body&gt;  &lt;?php include('includes/header.php'); ?&gt;  &lt;nav&gt; &lt;ul&gt; ... ...</pre>	<pre>&lt;header&gt; &lt;h1&gt;Pan Island Expressway Berhad&lt;/h1&gt; &lt;/header&gt;</pre>

- **navigation.php**
  - Cut and paste the **<nav> ... </nav>** code from the Home Page **index.php** file you created in the previous task to the **navigation.php** file. How do you include the **navigation.php** file?
- **footer.php**
  - Repeat the same process for the footer section.

We now move on the the About PIEB page, i.e. **about/index.php**. First of all, create the page and include the required PHP files from the **includes** directory at the appropriate part of the page. Do take note however, because the **includes** directory is located above the directory of this **index.php** file, you will need to include the files specifying the correct path as in the example below:

```
include('../includes/header.php');
```

Figure 2.4 below shows the expected output of the About PIEB page.



**Figure 2.4: About PIEB Page**

**Hint:** Use the <article> tag in this page.

### Using an Image for Page Header

Replace the <h1> element in your **header.php** file to display an image header using the file **images/header.jpg** provided to you. The required dimension is 960x300 pixels.

### Create the Pan Island Expressway page (pie/expressway.php)

The content section of this page contains the following:

- A **heading** with the text “The Pan Island Expressway”
- A **paragraph** with the text “The Pan Island Expressway (PIE), when completed in 2017, is a 25km open-toll expressway linking the eastern coast of Pulau Tiong from north to south. The PIE will be a part of the Pulau Tiong Ring Road (PTRR) and provides connectivity to Myna Town and suburbs along the eastern coast.”
- A table with caption as shown in Figure 2.5

List of interchanges of PIE

Kilometre	Interchange		Destinations
0.0	EXIT 8801	NORTH BAY	<ul style="list-style-type: none"> <li>North Bay Waterfront Promenade</li> <li>North Bay Park</li> <li>Bandar Helang</li> <li>Bandar Garuda</li> </ul>
2.5	EXIT 8802	MANDARIN	<ul style="list-style-type: none"> <li>Mandarin Park</li> <li>Mandarin Promenade</li> <li>Jalan Sungai Itik</li> </ul>
3.9	Mallard R&R		
4.5	Mallard Toll Plaza (south-bound only)		
5.2	EXIT 8804	MALLARD	<ul style="list-style-type: none"> <li>Mallard New Town</li> <li>Mallard Boulevard</li> <li>Mallard Beachfront</li> </ul>
6.6	EXIT 8806	SUNGAI LEMBU	<ul style="list-style-type: none"> <li>Bandar Sungai Lembu</li> <li>Jalan Sungai Lembu</li> <li>Sungai Lembu Beach</li> </ul>
8.8	EXIT 8808	MYNA TOWN (N)	<ul style="list-style-type: none"> <li>Myna Town (North)</li> <li>Jalan Burung Tiong</li> <li>Bandar Bukit Tiong</li> </ul>
9.6	Myna Tunnel (Northern start/end)		
14.6	Myna Tunnel (Southern start/end)		
15.2	EXIT 8810	MYNA TOWN (S)	<ul style="list-style-type: none"> <li>Myna Town (South)</li> <li>Jalan Burung Tiong</li> <li>Tiong Sentral</li> </ul>
17.6	EXIT 8812	MUSCOVY	<ul style="list-style-type: none"> <li>Bandar Muscovy</li> <li>Muscovy Waterfront</li> </ul>
19.1	EXIT 8814	DAFFY	<ul style="list-style-type: none"> <li>Daffy Garden</li> <li>Mynaland Theme Park &amp; Resort</li> </ul>
20.8	Daffy Toll Plaza (north-bound only)		
21.6	Daffy R&R		
22.2	EXIT 8816	BUGSY	<ul style="list-style-type: none"> <li>Bugsy Beach</li> <li>Gua Burung Tiong</li> <li>Pulau Tiong National Park</li> </ul>
25.0	EXIT 8818	SOUTH BAY	<ul style="list-style-type: none"> <li>South Bay Beach</li> <li>South Bay Commerce Centre</li> <li>Bandar Pipit</li> <li>Bandar Kenyalang</li> </ul>

Figure 2.5

### Create the Contact Us page (contact/index.php)

This page shall contain an HTML form with the following specifications. You are required to decide on the appropriate input elements for each input fields.

#### Specifications:

- The **<form>** element's **action** attribute has the value *contact/post-message.php*.
- What should be the appropriate **method** for this form – GET or POST?
- Input fields
  - Salutation – Mr/Ms/Mrs/Mdm
  - Name
  - Email Address
  - Phone Number
  - Type of Enquiry – General Enquiry/Complaints/Suggestions
  - Subject