**Lab 01: Create a website for Software Engineering Club using HTML**

**Background of Software Engineering Club:**

Software Engineering (SE) Club is a committee that works to make the student experience and the software engineering programs at Faculty of Computer Science and Information Technology, University of Malaya the best it can be! The committee regularly plan events that allow software engineering students to network with the fellow students, alumni and industries. Additionally, professional development events are organised to help students to gain a better understanding of the field.

A site map of the SE club is shown in Figure 1. The site map describes the architecture of the website, which consists of a "Home" page with three main content pages: "About", "Events", and "Sign Up".
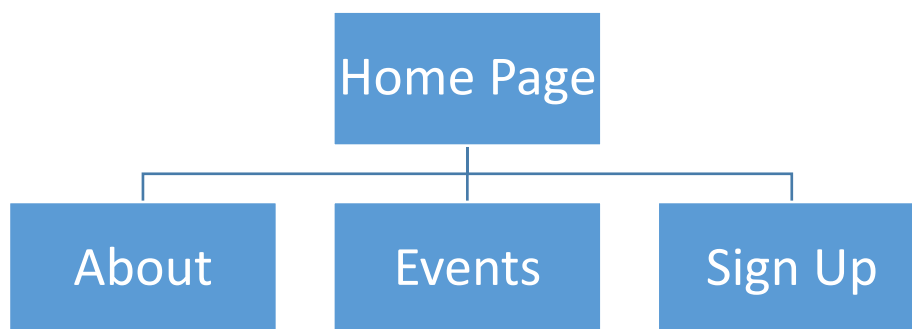


*Figure 1: SE Club's site map*

**Task 1: Create a folder**

Create a folder on your hard drive or portable storage device (USB or SD card) called "**seclub**" to contain your SE Club website's HTML files.

**Task 2: The Home Page.**

You will use a text editor to create the Home page for the SE Club website. The Home page is show in Figure 2.



*Figure 2: SE Club's index.html*

**Launch a text editor, and create a web page with the following specifications:**

1. Name the page as "index.html" and save it in the "seclub" folder.
2. HTML Head - Web Page Title
   a. Type a page title for the new page using <title> and </title> tags. Use a descriptive page title. The club name, "SE Club" is a good choice for a society website.
3. HTML Body: In the HTML Body, structure your web page body into 4 parts: Header, Navigation, Main Content and Footer (see Figure 3).
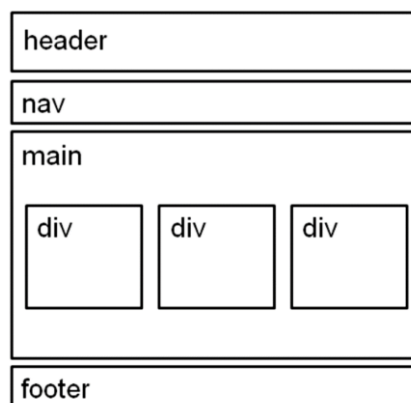


*Figure 3: HTML5 Structural Elements*

4. HTML Body - Wireframe Header
    a. Configure the main content within a **\<header>** element.
    b. Use \<h1> for the SE Club logo (text: "Software Engineering Club").

5. HTML Body - Wireframe Navigation
    a. place the navigation links (Home About News Events Login) within a **\<nav>** element. Using code **anchor tags** to create the hyperlinks and add extra blank spaces between the hyperlinks with the ** ** special character.
    b. "HOME" links to index.html
    c. "ABOUT" links to about.html
    d. "EVENTS" links to events.html
    e. "SIGN UP" links to signup.html

6. HTML Body - Wireframe Main Content.
    a. Configure the main content within a **\<main>** element.
    b. Use **\<h2>** to list the activities of SE Club (text: Have fun at SE Club!)
    c. Code the following address information within a **\<div>** element. Add a paragraph (name of club should be formatted as strong and italic) and unordered list:

    ***Software Engineering (SE) Club*** is a committee that works to make the student experience and the software engineering programs at Faculty of Computer Science and Information Technology, University of Malaya the best it can be! The committee regularly plan events that allow SE students to network with the fellow students, alumni and industries. We organise professional development events to help you gain a better understanding of the SE field:
    - Talks by industry professionals and SE experts
    - Workshops
    - Competitions
    - SE Day
    - Gathering with alumni
    d. Code the following address information within a **\<div>** element. Use **line break tags \<br>** to help you configure this area and add extra space between the

address and the footer area. The text "Visit us at" should be formatted as emphasized text <em>.

Visit us at:

Faculty of Computer Science & Information Technology

University of Malaya

50603 Kuala Lumpur, Malaysia

7. HTML Body - Wireframe Footer.

a. Configure the following copyright and email link information within a <**footer>** element. Format it with **small** text size and **italics** font style.

*Copyright © 2019 UM Software Engineering Club*

*umseclub@um.edu.my*

**Task 3: The About page**

Create the **About** page shown in Figure 4. A technique that improves productivity is to create new pages based on existing pages so that you can benefit from your previous work. Your new **About** page will use index.html page as a starting point.

Open the **index.html** page for the SE Club website in a text editor. Select File > Save As, and save the file with the new name of "**about.html**" in the seclub folder. Now you are ready to edit the page.
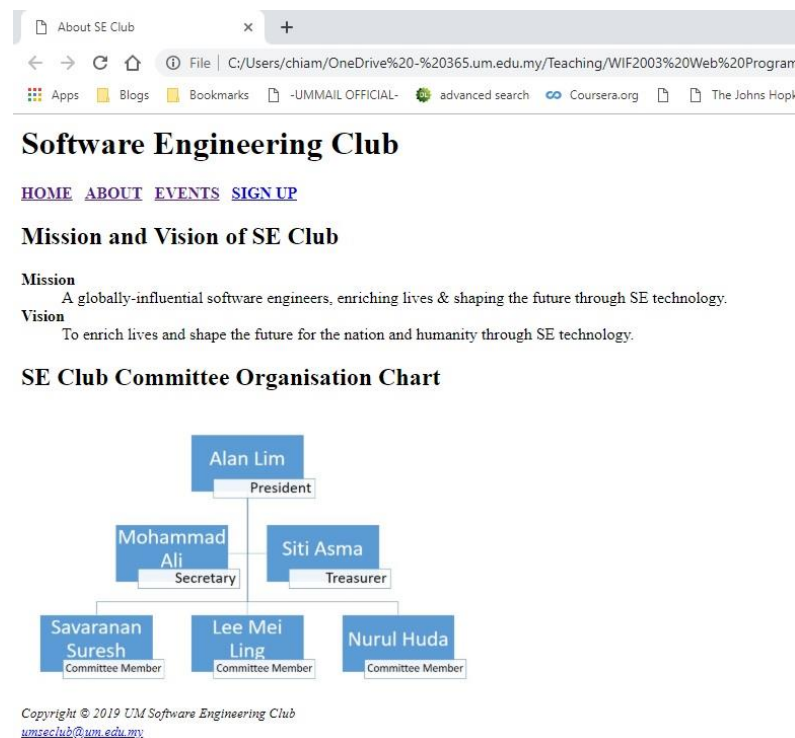


*Figure 4: SE Club's about.html*

1. HTML Head - Web Page Title
    a. Modify the page title for the new page using <title> and </title> tags to the following: "About SE Club"

2. HTML Body - Wireframe Main Content
    a. Modify <h2> to "Mission and Vision of SE Club"
    b. Delete the Home page content paragraph and list.
    c. Use **description list** to add the content to the page. Use the <dt> tag to contain list item name. Configure the list name to have strong important and display in bold font weight with the <strong> tag. Use the <dd> tag to contain the list item description. The list item names and descriptions are as follows:

**Mission**

A globally-influential software engineers, enriching lives & shaping the future through SE technology.

**Vision**

To enrich lives and shape the future for the nation and humanity through SE technology.

d. Replace the Home page's address information with the <h2> text "SE Club Committee Organisation Chart" and the organisation chart image (ochart.jpg). Code appropriate attributes on the <img> tag, set the width to 450px and height to 250px.

3. Test the hyperlink from the about.html page to index.html. Test the hyperlink from the index.html page to about.html. If you links do not work, review your work, paying close attention to these details:
   a. Verify that you saved the pages with the correct names in the correct folder.
   b. Verify your spelling of the page names in the anchor tags.
   c. Test again after you make changes.

**Task 4: The Events page**

Create the **Events** page shown in Figure 5.

Open the **index.html** page for the SE Club website in a text editor. Select File > Save As, and save the file with the new name of "**events.html**" in the seclub folder. Now you are ready to edit the page.
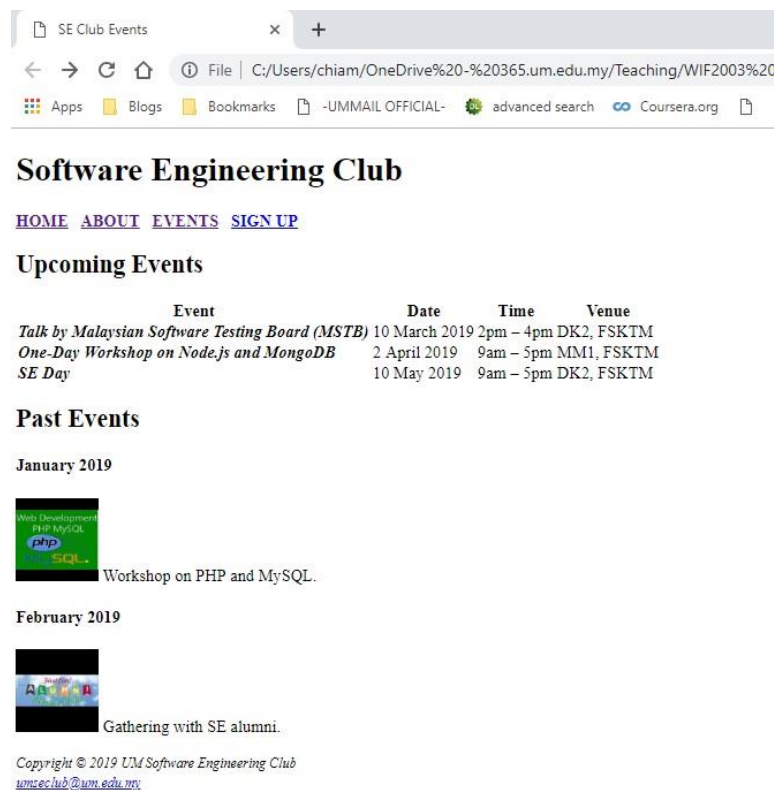


*Figure 5: SE Club's events.html*

1. HTML Head - Web Page Title
    a. Modify the page title for the new page using <title> and </title> tags to the following: "SE Club Events"

2. HTML Body - Wireframe Main Content
    a. Modify <h2> to "Upcoming Events"
    b. Delete the Home page content paragraph and address information.
    c. Use **<table>** to add the event content to the page.
        i. Use the <th> tag to add the table header.
        ii. Use the <tr> tag to contain each event information. Configure the event name to have strong important and styled in italics with the <strong><i> tag.
        iii. Use the <td> tag to contain the menu item description.

The menu item names and descriptions are as follows:

| Event | Date | Time | Venue |
|---|---|---|---|
| *Talk by Malaysian Software Testing Board (MSTB)* | 10 March 2019 | 2pm – 4pm | DK2, FSKTM |
| *One-Day Workshop on Node.js and MongoDB* | 2 April 2019 | 9am – 5pm | MM1, FSKTM |
| *SE Day* | 10 May 2019 | 9am – 5pm | DK2, FSKTM |

d. Replace the Home page's address information with the <h2> text "Past Events" and the event images.

January 2019 event:
   i. Configure an h4 element with the following text: **January 2019**
   ii. Code an opening paragraph tag. Assign the paragraph to the past event details.
   iii. Use anchor tag <a> to configure the thumbnail image (phpworkshopthumb.jpg) as an image link to the original image (e.g. phpworkshop.jpg). Code appropriate attributes on the <img> tag, set the width and height of the thumbnail image to 80px.
   iv. Configure the following text within the paragraph after the image: Workshop on PHP and MySQL.

February 2019 event:
   i. Configure an h4 element with the following text: **February 2019**
   ii. Code an opening paragraph tag. Assign the paragraph to the past event details.
   iii. Use anchor tag <a> to configure the thumbnail image (alumnithumb.jpg) as an image link to the original image (alumni.jpg). Code appropriate attributes on the <img> tag, set the width and height of the thumbnail image to 80px.
   iv. Configure the following text within the paragraph after the image: Gathering with SE alumni.

3. Test the hyperlink from the **events.html** page to **index.html**. Test the hyperlink from the **index.html** page to **events.html**. If you links do not work, review your work, paying close attention to these details:
   a. Verify that you saved the pages with the correct names in the correct folder.
   b. Verify your spelling of the page names in the anchor tags.
   c. Test again after you make changes.

**Task 5: The Sign Up page**

Create the **Sign Up** page shown in Figure 6.

Open the **index.html** page for the SE Club website in a text editor. Select File > Save As, and save the file with the new name of "**signup.html**" in the seclub folder. Now you are ready to edit the page.
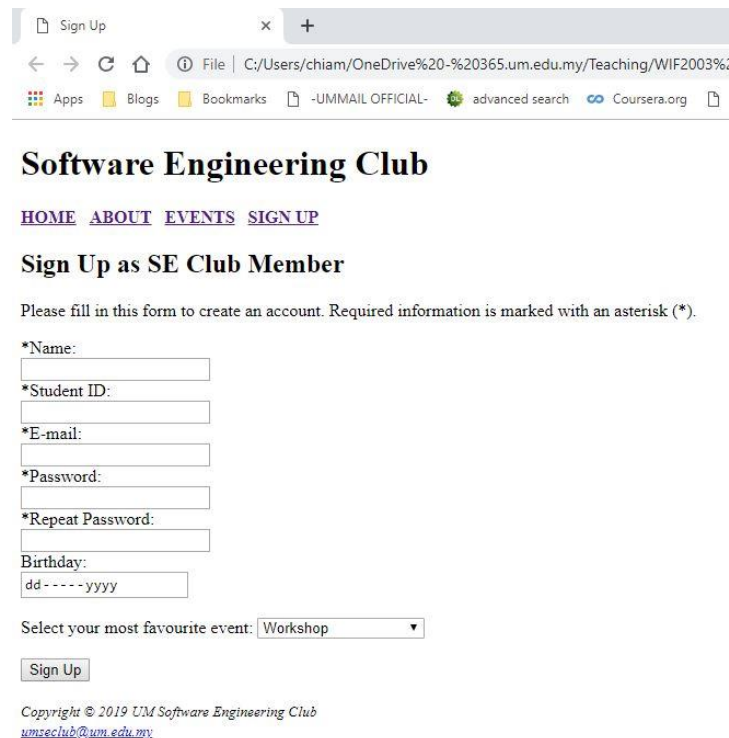


*Figure 6: SE Club's signup.html*

1. HTML Head - Web Page Title
   a. Modify the page title for the new page using <title> and </title> tags to the following: "Sign Up"

2. HTML Body - Wireframe Main Content
   a. Modify <h2> to "Sign Up as SE Club Member"
   b. Delete the Home page content paragraph.
   c. Add a paragraph: "Please fill in this form to create an account. Required information is marked with an asterisk (*)."
   d. Create a login form using the HTML <form> element to collect user input:
      i. Add the form attributes: method="post", action="/sign-in-url"
      i. Add the following **labels** and **input**s:
         - **\*Name:** using *text* input type
         - **\*Student ID:** using *text* input type
         - **\*E-mail:** using *email* input type
         - **\*Password:** using *password* input type
         - **\*Repeat Password:** using *password* input type

- **Birthday:** using *date* input type
- **Select your most favourite event:** using select input type, a dropdown list that provides 5 options: Workshop, Talk, SE Day, Competition, Gathering with alumni

  ii. Add a submit button with the value "Sign Up"

  **NOTE:** Use **line break tags <br>** to help you configure the form and add extra space between the labels and inputs.

3. Test the hyperlink from the **signup.html page** to **index.html**. Test the hyperlink from the **index.html** page to **signup.html**. If you links do not work, review your work, paying close attention to these details:
   a. Verify that you saved the pages with the correct names in the correct folder.
   b. Verify your spelling of the page names in the anchor tags.
   c. Test again after you make changes.