

**SINGAPORE POLYTECHNIC  
SCHOOL OF COMPUTING**

**COMMON INFOCOMM TECHNOLOGY PROGRAMME (Year One)  
DIPLOMA IN APPLIED AI AND ANALYTICS (Year One)  
DIPLOMA IN CYBERSECURITY AND DIGITAL FORENSICS  
(Year One)  
DIPLOMA IN INFORMATION TECHNOLOGY (Year One)**

<b>Module Code</b>	: ST0501
<b>Module Name</b>	: Front-End Web Development
<b>Acad Year/Semester</b>	: 2025/2026 Semester 1
<b>Assignment Title</b>	: CA2 – Interactive Website
<b>Assignment Type</b>	: Individual
<b>Weightage</b>	: 40%
<b>Deliverables &amp; Deadline (what &amp; when)</b>	<p><b>: All files used in the web pages.</b></p> <p>Website: Bootstrap, HTML &amp; CSS <b>11 Aug 2025, Monday, 0900Hr</b></p> <p>Digital submission in Bright Space using the File naming convention example: CCC_1AXX_nnnnnnn_yourname.zip</p> <p>Where CCC is your course name, eg DIT ; 1AXX is your class number, eg 1A01 and nnnnnnn is your admin number, eg 2312345.</p>
<b>Late submission after the deadline</b>	<p><b>: 50%</b> of the marks will be deducted for assignments that are received within <b>ONE (1)</b> calendar day after the submission deadline. <b>No</b> marks will be given thereafter. Exceptions to this policy will be given to students with valid LOA on medical or compassionate grounds. Students in such cases will need to inform the lecturer as soon as reasonably possible.</p>

## Learning Outcomes

- Use of HTML5, CSS3 and Bootstrap framework to create mobile-friendly website.
- Use JavaScript to create interactive web pages.
- Present and explain work done during interview.

## Assignment Theme: Design for Impact

Target Audience:

Individuals aged 16 and above.

Overview:

Create an interactive and aesthetically pleasing website based on a cause, community, or concept that you are passionate about. The theme is intentionally open-ended to allow flexibility in choosing a meaningful topic that resonates with you or your peers.

Possible Areas of Focus (Choose one or propose your own with approval):

1. Sustainability and Climate Action
2. Mental Health and Wellbeing
3. Youth Empowerment or Education Access
4. Digital Wellness and Cyber Safety
5. Social Good Projects or Volunteerism
6. Future of Technology or Innovation
7. Celebrating a Culture, Festival or Movement

Website Requirements:

Create a **3-page website** using **Bootstrap, HTML5, and CSS3**, with interactive JavaScript elements that reflect your chosen theme.

Required Pages:

1. *Home Page*  
Introduce your chosen theme/cause in a visually engaging way. Clearly state your message or objective.
2. *Informational Page*  
Share relevant content, future developments, or interesting insights related to the theme. Use a multi-column layout to organize your data attractively.
3. *Interactive Form Page*  
Include a form for visitors to share their opinions, pledge support, or submit a related message (no backend processing required). Implement at least 5

different form controls styled using Bootstrap.

Note: You are to use the Bootstrap framework for the above contents.

## Technical Specifications:

- Create a website of **3** web pages (include the first landing page of your website using the file name: **index.html**).
- Fair use of free stock images/photos (must give attribution on source of images in your comments).
- You are allowed to use content provided by SP (must give attribution on source of images in your comments).
- You are **not allowed** to use content and designs elements from templates or use frameworks like Wordpress, Drupal, Joomla, Wix or any other frameworks.
- Make sure your website can be viewed properly using Google Chrome Browser.
- Web Graphics file size should not exceed 800KB (per graphic file).
- Scripting and Styling should be accessed via external files.
- No fatal errors found in validating web pages and CSS styles.
- Add comments in all HTML, CSS and JavaScript files.
- Organization of files (there should be folders to segregate different types of files eg. html, css, js, graphics files).
- Apply proper file naming convention.

## Deliverables

- Part 1 (Website) – **Deadline 11 Aug 2025, Monday, 9am.**
- Part 2 (Interview) – **During FED lesson on Week 17 or Week 18.**  
Your tutor will provide a date and time for you to attend the interview session based on your FED lesson timetable. This is a Face-to-Face interview session. Using your laptop, you will be given around 5-10 minutes to present your website, followed by a Q&A session.

Zip all the relevant files and folders into a single compressed file and name your compressed file using your course name, your class number, your Admin Number and your name:

E.g. DIT1A01\_2312345\_Peter\_Lim.zip and submit it via Bright Space.

**Warning:** Plagiarism means passing off as one's own the ideas, works, writings, etc., which belong to another person. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turning it in as your own, even if you would have the permission of that person.

Plagiarism is a serious offence, and if you are found to have committed, aided, and/or abetted the offence of plagiarism, disciplinary action will be taken against you. If you are guilty of plagiarism, you may fail all modules in the semester, or even be liable for expulsion.

## Marking Scheme:

1	<b>Interview</b>	20%	<ul style="list-style-type: none"> <li>• Presents with strong articulation of both design and technical choices.</li> <li>• Can explain trade-offs (e.g. why Bootstrap component X vs custom CSS).</li> <li>• Demonstrates deep insight into usability, performance, and scalability.</li> <li>• Able to troubleshoot or explain alternate implementation approaches on the spot.</li> </ul>
2	<b>Content &amp; Layout Design</b>	10%	<ul style="list-style-type: none"> <li>• Content is purposeful, audience-specific, and well-structured with clear messaging.</li> <li>• Layout exhibits grid system mastery, accessibility (e.g. contrast, keyboard nav), and intentional visual storytelling.</li> <li>• Typography, spacing, and imagery are coherent, and responsive to user context (device size, attention flow).</li> </ul>
3	<b>Use of Bootstrap Framework</b>	20%	<ul style="list-style-type: none"> <li>• Shows confident and effective use of Bootstrap, including responsive layouts, utility classes, and advanced components like modals, carousels, and cards.</li> <li>• Uses advanced components (e.g. Accordion, Offcanvas, Tabs) meaningfully, not just for show.</li> <li>• Customizes Bootstrap styles cleanly without breaking responsiveness.</li> </ul>
4	<b>JavaScript Functionality</b>	25%	<ul style="list-style-type: none"> <li>• JavaScript is modular and scalable: uses event delegation, named functions, and arrow functions where appropriate.</li> <li>• Includes at least one feature with dynamic DOM rendering (e.g. cards generated from arrays or data).</li> <li>• Applies logic for interactive features like toggles, image galleries, collapsibles, or dynamic content sections.</li> <li>• Clean use of conditional logic, loops, and array methods.</li> </ul>
5	<b>Web Project Management &amp; Technical Execution</b>	15%	<ul style="list-style-type: none"> <li>• Project folder is organized like a production project: assets/, css/, js/, images/, fonts/ (if used), etc.</li> <li>• All scripts and styles are modular and externally linked.</li> <li>• HTML and CSS fully validated, clean indentation, semantically correct tags used (e.g., &lt;main&gt;, &lt;section&gt;, &lt;article&gt;).</li> <li>• Image assets optimized (web-appropriate resolution and compression).</li> </ul>
6	<b>Interactive Form</b>	10%	<ul style="list-style-type: none"> <li>• Form uses at least 5 distinct input types (e.g. radio, dropdown, textarea, range slider).</li> <li>• JS form validation includes custom conditions, inline feedback, and edge-case handling.</li> </ul>

			<ul style="list-style-type: none"><li>• User receives real-time interaction cues (e.g. character counters, active field highlights).</li><li>• Design prioritizes accessibility: tab order, labels, and ARIA where appropriate.</li></ul>
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