SINGAPORE POLYTECHNIC
School of Electrical & Electronic Engineering
CSAD PBIL MARKSHEET

LAB3
20%

Module Class: _____

Group Members (Admission Number & Name, up to 4):

1. _____ **(Leader)**   **Marks**: _____

2. _____   **Marks**: _____

3. _____   **Marks**: _____

4. _____   **Marks**: _____

In this mini-project, you will apply the skills learned to develop a client-server application. In the process you are expected to pick up the skill of finding information from the Internet and apply them to the development.

As a start you can refer to the following links for tips to start designing your web applications:
1. **Website Review –example**
   https://esp.sp.edu.sg/bbcswebdav/pid-1475717-dt-content-rid-4261141_2/xid-4261141_2
2. **20 Best Review Website Designs**
   https://line25.com/inspiration/best-review-website-designs

Final Mark Computation

Marks = A + B + C + D   (Submit **before** 11 Feb 2022 during scheduled class)
Marks = A + B + (C + D)*0.85   (Submit **before** 11 Feb 2022 during scheduled class, but project is not based on listed themes.)
Marks = A + B + C + D – 10   (Submit **after** 11 Feb 2022 during scheduled class)
Marks = A + B +(C + D)*0.85 – 10   (Submit **after** 11 Feb 2022 during scheduled class, project is not based on listed themes either.)

A. Individual's Contribution – 0 to 30%

Quality To Assess: **1. Individual's contribution**
                           2. Team spirit
                           3. Technical Knowledge

Name and Attendance	Marks (Out of 30%)
Name: **Contributions:**	

Name: **Contributions:**	
Name: **Contributions:**	
Name: **Contributions:**	

B. **Project Quality – 0 to 30%**

1) User Experience i.e. of ease of use
2) Client-server application meets its purposes
3) Quality look and feel e.g. GUI component layout, colour label, error check, display of error and warning messages, adequate prevention from performing undesired actions etc.
4) Brief Project PowerPoint Presentation with key references URL
5) Project Video (< 5mins).

B

(Out of 30%)

C. <u>Features Implemented in Submitted Project – max. 30%</u>

<mark>Advanced features are ranked higher than basic features and scoring consideration is based on application relevancy and implementation quality.</mark>

Below are some possible features that you can implement in your project.

C	
(Out of 30%)	

Basic Features:

1) Home Page - logo, contact, search, FAQs, services, login, sign-in etc. ☐
2) Footer Page – about us, contact,   forum, profiles etc. ☐
3) About us page – company profile, address, map location ☐
4) Consistent branding across all pages ☐
5) Project Members Portfolio (Photo, Name, Adm No, Profile) ☐
6) Use of cookies, session ☐
7) Google Map Direction ☐
8) Embedded video ☐

Advanced Features:

1) Dynamic announcements or sales promotion from SQL database ☐
2) Dynamic image gallery view from SQL database ☐
3) Dynamic User Rating System (rating stored in SQL database) ☐
4) Use of JSON between client and server ☐
5) Photos and/or video files upload with update to SQL database ☐
6) Quick Internal Search (Use of SQL) ☐
7) Contact us or feedback from user stored to SQL database ☐
8) Management of data (CRUD) stored to SQL database e.g. create, read, update and delete of user accounts, announcements etc. ☐
9) Discussion Forum, Comments, Blog ☐
10) Integration with mini-project from other module e.g. MAD. MAPP etc. ☐

D	
(Out of 10%)	

D. <u>Self-Directed Learning and Application – max. 10%</u>

1) Payment System Using PayPal Sandbox ☐
2) Use of Bootstrap framework ☐
3) Node.js, React ☐

Other Features Not Listed or Comments:

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Tips

- Home Page — The common elements of Home Pages in 2022 are the business' logo placed in the top left corner, contact buttons on the top right, search feature, company values and call to action towards the top of the page.
- Footer — These footers should have a sign-up or a subscription box. Due to the prevalence of social media, most websites will have their social media profiles linked at the bottom of the screen.
- Overall Design — The design should be responsive and interactive – it should be able to flow among computer, tablet, and phone screens. Original elements can be implemented to keep people intrigued and to continue on your site.
- Animation and Chat are increasingly popular

Appendix - Project Themes

Choose one of the project theme below:

1. The Hilti IT Competition 2022 focuses on gamifying cybersecurity awareness in the construction industry. As exemplified in many recent documented cybersecurity breaches, the human element plays a vital role in ensuring the resiliency of the IT infrastructure of any modern organization. Cybercriminals often target employees as an entry into an enterprise as employees have access to information and systems. Hence, these topics could be addressed, but not limited to the following areas:

   - Ransomware and Malware
   - Device and Password Security
   - Phishing
   - Social Engineering

   For more info, please visit: **https://itcompetition.hilti.group/itc2022.html#topics**

2. **Samsung – Solve for Tomorrow**
   - Environmental sustainability is a critical challenge that Singapore faces. For example, due to climate change and rising sea levels, many of our coastal areas might be submerged within the next few decades. We need bold ideas and solutions to address our most pressing environmental issues and build a sustainable future.
   - Digital Inclusion for Seniors - As Singapore faces an increasingly ageing population and our nation charges ahead to digitalize, there is a pressing need to bridge the digital divide for seniors who might be left behind. We need innovative solutions to strengthen the silver generation's digital literacy and improve their access to technology.
   - Health & Wellness - The physical health of Singaporeans is a priority for the nation with the ongoing pandemic and the prevalence of chronic diseases due to unhealthy lifestyles. In addition, with an increasing focus on mental health issues, there is a need for solutions to enable Singaporeans to lead a healthier lifestyle with equal consideration for physical and mental wellbeing.
   - Preparing for the Future of Work - As technology continues to advance and more jobs are being created, there is a need to prepare future-proof youths for a vastly different workforce in the future. We require bold and refreshing digital solutions to help the youths of tomorrow acquire relevant soft skills and industry experience in this fast-evolving landscape.

   Note: Simple projects like medicine reminder etc, exercise programs and reminder etc and appointment reminder etc, do not fall into this theme. Such projects will compute with the factor 0.85.

3. **Huawei ICT Competition Singapore 2021-22 Innovation Track**

   Huawei ICT Competition is a global ICT talent exchange event held by Huawei for college students from Huawei ICT Academy and students who are interested in the Huawei ICT Academy program.

   - For the competition, it is recommended to use Huawei-related technologies (e.g. Ascend AI, big data, and IoT) combined with the existing software and hardware resources of the colleges and universities to design a work to solve a specific problem in the industry;
   - For resource support, Huawei provides online courses on Talent website and technical support through the ModelArts communities.

     For more information go to:
     https://e.huawei.com/en/talent/#/news/details?consultationId=1445

4. Shopee Product & Design Challenge

Taking into consideration of Shopee's current initiatives on its online applications in the respective markets and the local consumer behaviour, propose a solution that focuses on:
(i) Improving an existing feature, OR
(ii) Creating a new feature that would enable Shopee to remain the leading e-commerce platform in your chosen market.
Areas that your solution can target, but are not limited to: Listings, Search, Recommendation, Marketing, Supply Chain, Financial Services, Anti-Fraud, and Notification Channels.

For more details refer to: https://careers.shopee.sg/productdesign2021/#competition

5. IKEA Southeast Asia's Young Designer Award

It is for students in tertiary institutions to showcase their design ideas to create a better life at home, and use the power of design to find solutions that will inspire change.

Your challenge: How can we design a future without food waste? Your concept or solution can be:
- A product design
- A social movement or community initiative
- A technological solution or application
- Or it could be a combination

For more details refer to: https://yda.sea-ikea.com/sg/en/young-designer-award

6. Atos IT Challenge:

To develop digital solutions that will support activities in space.

For more details refer to: https://www.atositchallenge.net

7. LHL Smart Nation Award
- Smart Mobility – create a more seamless transport experience through new travel options and greater access to real-time transport information.
- Smart Living – improve daily living in our homes through smart devices.
- Smart Health and Wellness – deliver better healthcare services and wellness applications for seniors and citizens through effective use of information technology.
- Digital Services – improve government operations and service delivery through technology.

Note: Simple projects like medicine reminder etc, exercise programs and reminder etc and appointment reminder etc, do not fall into this theme. Such projects will compute with the **factor 0.85.**

8. SP Smart Campus
Singapore Polytechnic's new Smart Campus platform seeks to transform education through smart technologies.

9. Any other current competition or proposal from industry.

-END-