

A web project by Supasir Wuthikulphakdi (#608785068) of Suppersyne-Thaimosa.
In affiliation with Tamkang University, NTC, Taiwan since 2020 EST. 2009



Website Manual

Supasin Wuthikulphakdi #608785068, Tamkang University

Chapter 1: Browsing the site as a guest.

1.1 The home page

Once you have entered the website, login & out, you will see the site cover and have to wait for 3 sec.



After 3 seconds, you will be redirected to the homepage, which redirects to the homepage features like news, about, contact, gallery, sitemap, and the download button of this manual.

A screenshot of the Thaimosa Comlabs Taipei homepage. The header includes the logo "Thaimosa Comlabs TAPE" and a "Menu" dropdown. Navigation links at the top are DOCS, LARACASTS, NEWS, BLOG, NOVA, FORGE, VAPOR, and GITHUB. A banner in the background shows a city skyline. The main content area has a title "Thaimosa Comlabs" and a subtitle "Home Page 首頁". Below this is a "News 最新消息" section with a table of recent news items. To the right are sections for "WEBSITE'S BROWSING & INSTRUCTIONS MANUAL" (with a video thumbnail) and "SITEMAP" (with another video thumbnail). At the bottom are three large buttons for "ABOUT THE INSTITUTE", "PHOTO GALLERY", and "CONTACT US", each accompanied by a small video thumbnail.

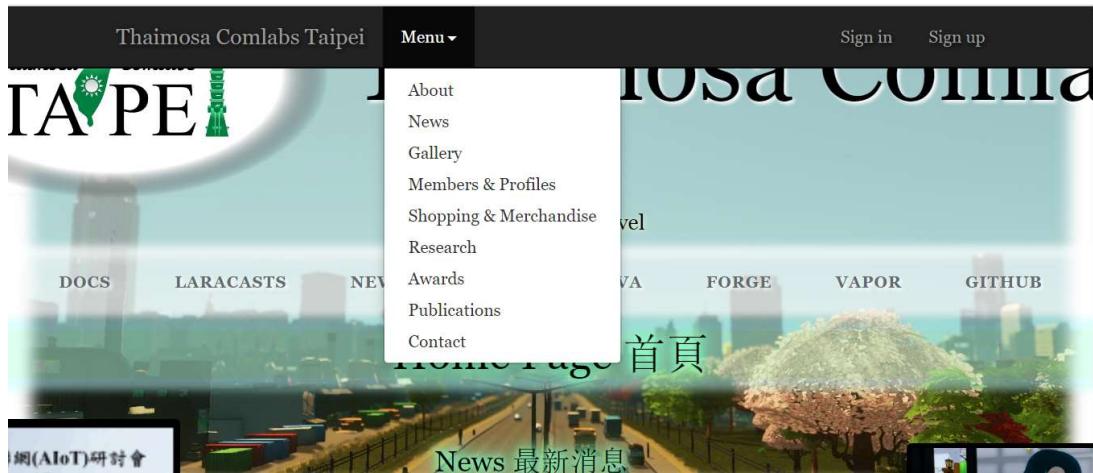
However, if we click on the site's name to the top-left navbar, we will be directly redirected to the homepage. On the other hand, the slideshow feature is purely decorative, and it is actually an animated gif image.

1.2 Navigation

There are 2 navigation methods in this site

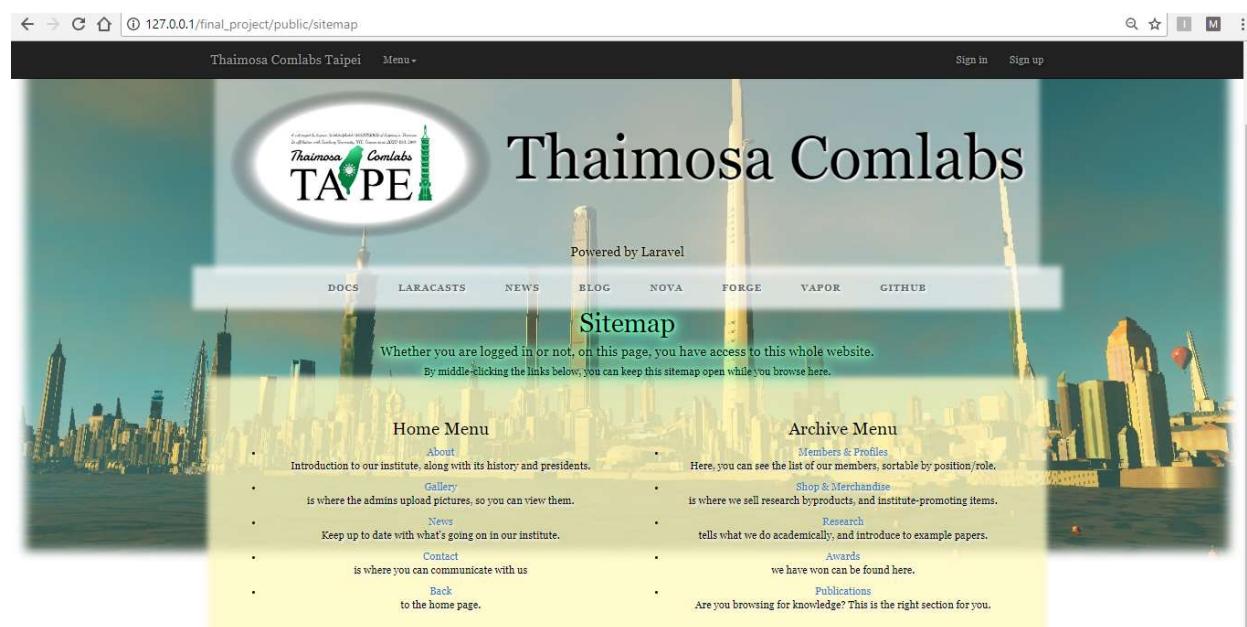
1.2.1 The top navbar

The top navbar, the feature the all Laravel sites should have, is useful when you're neither at the homepage nor the sitemap; or just leave their tabs on while browsing. And the authentication & privilege features also appear here. The picture below shows the dropdown "main menu".



1.2.2 The sitemap

If you are not sure about where to go, the sitemap will point the way to, and what to be anticipated on, a specific page. To make sure you are not lost, you may leave this tab open by middle mouse clicking (or tapping for 3 seconds for mobile devices) on the link you want to go to.



1.2 What can a guest browse?

A guest user (not logged in), and a general user, can surf all the following page below

The screenshot shows the 'About ~ Our History' page of the Thaimosa Comlabs Taipei website. At the top, there is a navigation bar with links for 'About us', 'Settings', '127.0.0.1 / MySQL / fine', 'Personal Records', 'Privilege Tools', and 'Sign out'. Below the navigation bar, a message says 'Your ID is #2 and your priv is A'. The main content area features a large image of a building with a blue roof. To the left is an 'Organization' chart showing the hierarchy from the President down to various academic and administrative units. To the right is a detailed text about the history and current status of Thaimosa Comlabs, mentioning its founding in 1928 and its growth into a modern research institution.

Timeline

The screenshot shows the 'Timeline' page of the Thaimosa Comlabs Taipei website. It displays a horizontal timeline with several entries, each accompanied by a small icon and a brief description. The entries appear to be historical milestones or achievements of the institution.

The screenshot shows the 'Contact' page of the Thaimosa Comlabs Taipei website. The page features a large banner with two scientists in lab coats. Below the banner, there is a map of the area around Yuan Chuan Izakaya Restaurant, with a red pin indicating the restaurant's location. On the left, there is a 'CONTACT INFORMATION' section for the 'FRONT OFFICE' with details like address, phone number, and email. On the right, there is another 'CONTACT' section with contact information for a company in New Taipei City. The page is powered by Laravel, as indicated by the footer.

Top = the about page

Bottom = the contact page

NOTE: due to the pagination function in the controllers, all lists are limited to 10 items per page

The screenshot shows a news archive page titled "News List". The table lists various announcements with columns for date announced, type, title, and view-count.

date announced	type	title	view-count
2020-06-30	Departmental	MSI invites college and postgraduate students of our department to graduates	1
2020-06-30	Departmental	Japanese sister school Hosei University 2021 Hosei International Fund (HIF) Foreign Scholars Fellowship	0
2020-06-23	Jobs & Employment	AWS Cloud Engineer Career Sharing	0
2020-06-15	Jobs & Employment	Amazon Job Opening	0
2020-06-15	Jobs & Employment	Changhua Bank's 109 Campus Information Elite Recruitment Screening Guide	0
2020-06-13	Departmental	2020 graduation photos of the Department of Information Engineering	23
2020-06-13	Honours & Awards	Shi Guiping awarded the US invention patent.	0
2020-06-06	Scholarship	Announcement of the 108th Annual Tutor Scholarship Award	0
2020-06-02	Competition	(Competition information) "2020 National Colleges and Universities Smart Innovation and Cross-domain Integration Creation Competition"	0

The screenshot shows a gallery page titled "Gallery List". It displays a collection of images with captions and backgrounds.

Photo	Caption	Background
	Robot Factory	

Top = the news archive

Bottom = the gallery, where you can view big-sized images

Screenshot of a web application interface showing two main sections: Profile List and Merchandise List.

Profile List

Select whom to be shown below:

[Faculty, Academics & Staff](#) | [Postgraduates](#) | [Undergraduates](#) | [Postgraduate Alumni](#) | [Undergraduate Alumni](#)

ID	name	photo	email	position	organisation
23	Zhang Zhiyong		cychang@mail.tku.edu.tw	Faculty, Academic & Staff	Tamkang University
25	Li, Szu-Chuang		tommyl@citi.sinica.edu.tw	Postgraduate Student	Academia Sinica

Merchandise List

name	photo	price	remain-count
Taiwan Sticker		20	1000
Thaimosa Comlabs Sticker		20	1000
Thaimosa Company Sticker		20	1000

*Top = the profile list, whose role/position can be sorted by ID ascendingly.
Bottom = the shop & merchandise list, where our products can be bought.*

Sitemap Publication List - Shop Laravel 127.0.0.1/final_project/public/pub

Thaimosa Comlabs Taipei Menu Personal Records Privilege Tools Sign out

Your ID is #2 and your priv is A

Publication List

title	category/discipline	authors	internal reference	date published
Towards Human Activity Recognition: A Hierarchical Feature Selection Framework	activity recognition; hierarchical model; feature selection; information infusion	Aiguo Wang 1,2 , Guilin Chen 2,* , Xi Wu 1 , Li Liu 3 , Ning An 1 and Chih-Yung Chang 4	23	2018-10-25
Joint Sensor Energy Conservation and Mobile Sink Cooperation for Data Collection in WSNs	collection point; network lifetime; rendezvous time; energy consumption;	Chih-Yung Chang 1 , Wen-Hwa Liao 2 , Gwo-Jong Yu 3 , Shih-Jung Wu 1 , Chih-Kai Chang 2	23	2020-06-04
An In-Band Full Duplex MAC Protocol with Interference Free for Next Generation WLANs	Component; In-band full-duplex technology (IBFD); Inter-Station Interference Problem (ISIP); Wireless Local Area Networks (WLANs)	Shi Guiping	24	2018-07-02
Evaluating the Risk of Data Disclosure Using Noise Estimation for Differential Privacy	Cybersecurity, Data Privacy, Differential Privacy.	Hung-Li Chen*, Jia-Yang Chen*, Yao-Tung Tsou*, Chia-Mu Yu*, Bo-Chen Tai§, Szu-Chuang Li§, Yennun Huang§ and Chia-Ming Lin†	8, 25	2017-01-22
Barrier Coverage Mechanism for Traffic Count in Wireless Sensor Networks	wireless sensor networks; barrier coverage; probabilistic sensing; traffic count	Chih-Yung Chang, Yao-Wen Kuo, Chao-Tsun Chang, Wen-Hwa Liao.	23	2018-07-02

Type here to search Sitemap Publication List - Shop Laravel 127.0.0.1/final_project/public/research

Thaimosa Comlabs Taipei Menu Personal Records Privilege Tools Sign out

Your ID is #2 and your priv is A

Introduction to this lab

To view our research list, please click [here](#).

Overview



The faculty members of our department are very active in international organizations and play roles as program committee members and session chairs in many important conferences such Annual International Conference on Research in Computational Molecular Biology (ACM RECOMB), IEEE International Conference on Robotics and Automation (ICRA), IEEE Conference on Control Applications (CCA), IEEE Conference on Decision and Control, American Control Conference, IEEE Real-Time Systems Symposium (RTSS), IEEE Real-Time Technology and Embedded Applications Symposium (RTAS), International Conference on Parallel Processing (ICPP), International Symposium on Fault-Tolerant Computing (FTCS), IEEE International Conference on Computer-Aided Design (ICCAD) and IEEE International Conference on Multimedia and Explore. They also won many honors including four IEEE fellows, eight NSC outstanding research awards and three Sinica young researcher awards. In addition, they also work closely with the industry, owning patents and founding companies.

The research of our department can be categorized into four big research groups: "embedded systems", "high performance computing", "bioinformatics", and "Multimedia and Digital Content".

Specialties

The "embedded systems" group is consisted of Intelligent Robotics and Automation Laboratory, System On Chip Laboratory, Embedding Computing Laboratory, Intelligent Space Laboratory, Low Power VSLI Laboratory, Wireless Network & Mobile Computing Laboratory. The group members are experienced in control and SOC design for industry and very collaborative with the industry. They also won a lot of honors such as IEEE fellows, NSC outstanding research awards and IEEE CSIDC 2003 championship.

The "high performance computing" group focuses on the design and analysis of algorithms. The research topics include parallel and distribution computation, scientific computation and optimization. Applications include wireless communication, finance computation, computational physics and data mining. The members of this group have published papers in top journals and conferences such as SIAM Journal



Top = Publications list, where our papers are posted

Bottom = the lab introduction.

The screenshot shows a web browser window with multiple tabs open. The active tab is titled 'Awards List - Shop Laravel'. The page content displays a table of awards:

title	photo	given to	given date
11th National Electronic Design Creative Competition with the "Design and Implementation of Smart Home Sub-Health Care System"		23	2014
11th National Electronic Design Creative Competition for "Design and Implementation of Central Control System for Smart Home"		23	2014
Internet of Things Talent Cultivation and Entrepreneurship Competition with the "i-Home Smart Home System"		23	2014
IETAC 2014 Best Paper Award		23	2013

At the bottom of the browser window, the taskbar shows various pinned icons and the system clock indicating 12:11 AM on July 1, 2020.

Chapter 2: Authentication & General User

2.1 introduction to the site's authentication feature

If you have never registered to this website, the first thing to do is to register yourself on the page below. When online, the privilege option is turned off (hidden) and set to G (User->priv = 'G').

The screenshot shows a web browser window with multiple tabs open. The active tab is titled 'Register - Shop Laravel'. The page content displays a registration form:

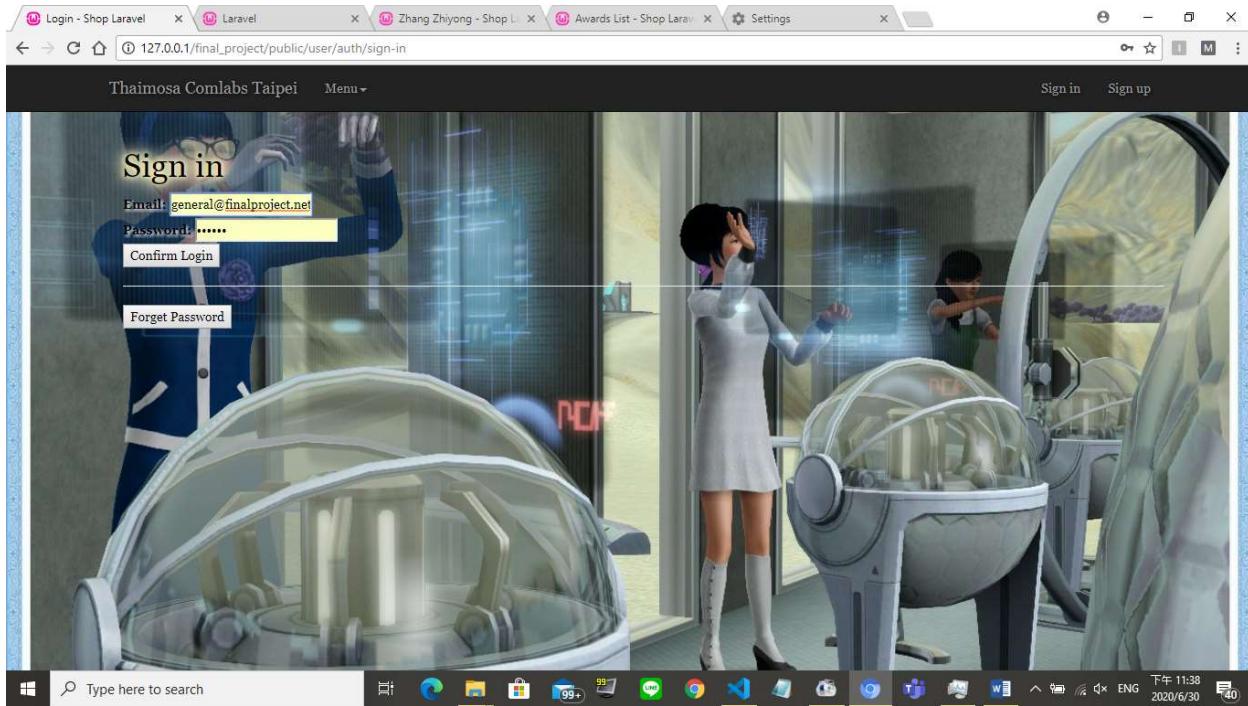
Register

Fields include:

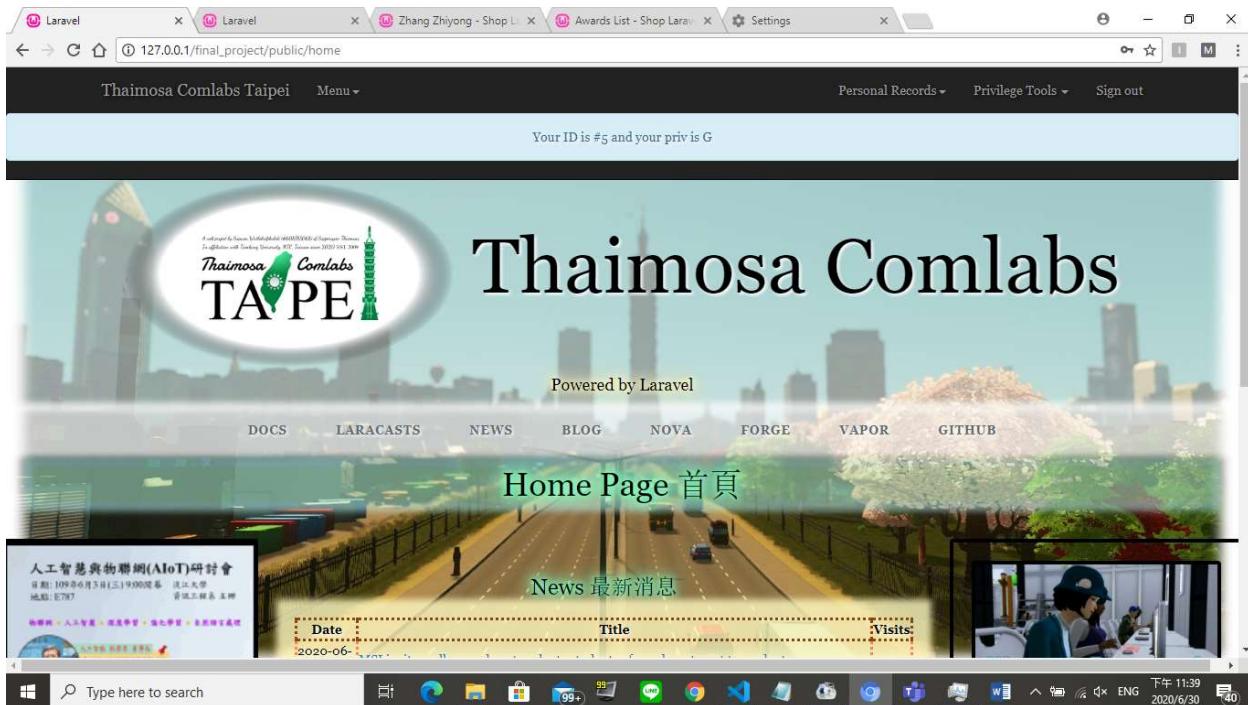
- Name: (not "new user") your full name
- Email: (not "user@user") your email
- Password: password
- Confirm password: confirm password
- Privilege: General ▾
- Are you registering as a non-guest user?: Yes ▾
- Member Type: Faculty & Staff ▾
- Organisation: organisation
- Telephone Number (choose only one working): telephone
- Please introduce yourself here: introduction
- Have you received any rewards? If yes, what are they? awards
- Have you published any written works? If yes, what are they? publications
- What is the title of the Thesis/Research scope you are doing/about to do/recently done? thesistopic
- If you have told the thesis topic/research scope, what is it about? Tell us briefly, thesisabstract
- If you have some achievements, what are the links to them? linkx
- Confirm register

The background of the form features a futuristic, sci-fi themed illustration of two characters in a high-tech environment.

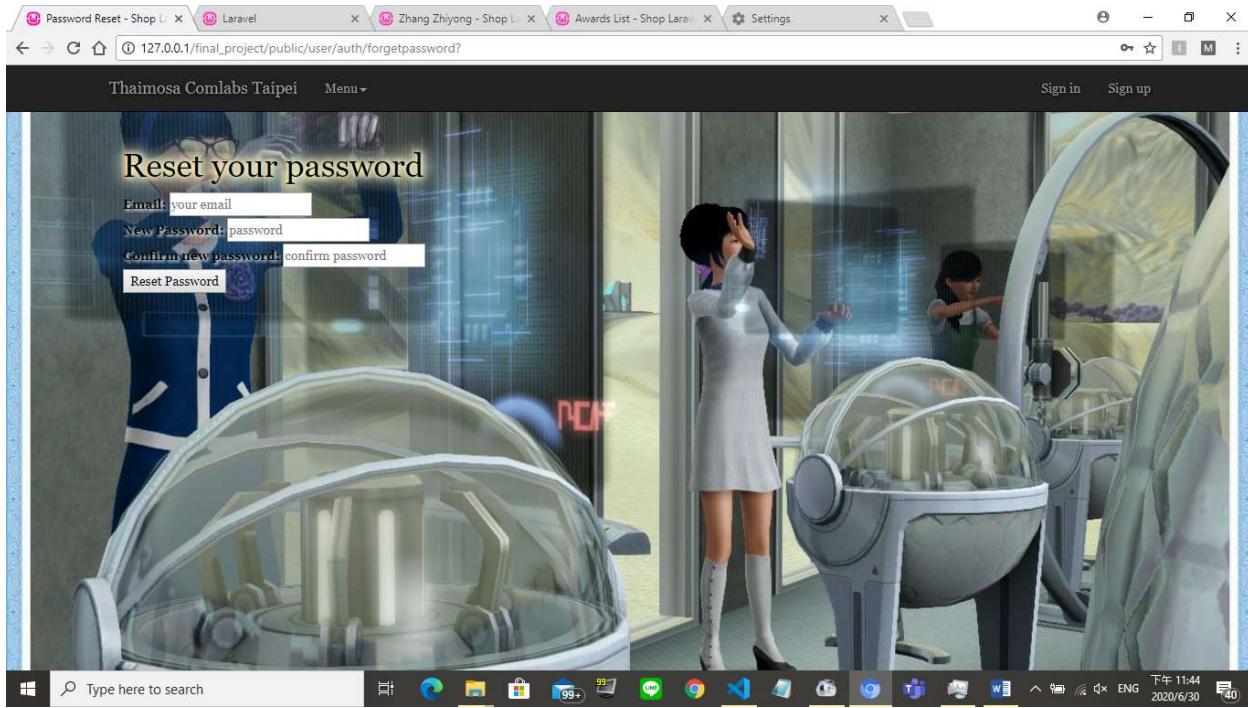
Since there is no validator to the “organization” input and below, the remainder can be left blank. Once finished, you are immediately allowed to sign yourself in.



Once the login succeeds, you will be redirected to the site cover, but fear not – you'll soon be at the home page.



The next time you enter this site and you need to log in, but you have forgot your password, you may go to the sign-in->forget_password page. Usually, if this website becomes online, the password change & recover page will be provided by the admin via email.



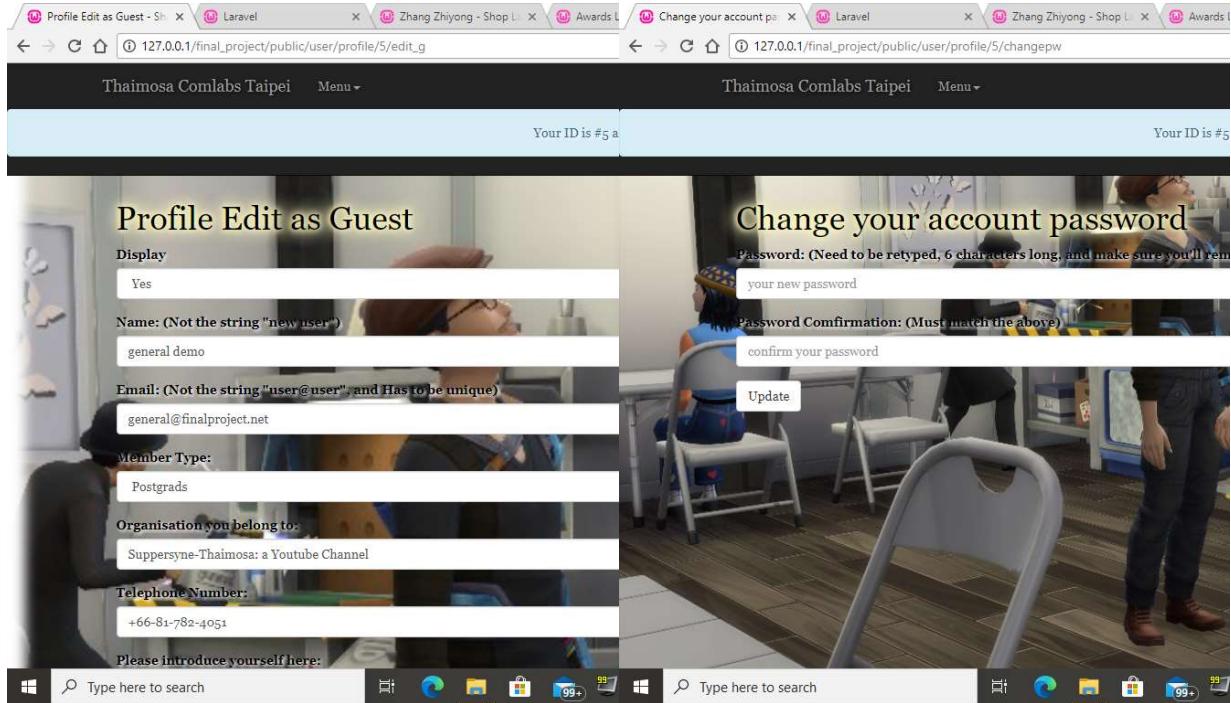
Once the password matching your email is reset, you'll be also ready to log-in with the newly set password, re-enabling your account.

2.1 General User

When this website is online, the privilege option is turned off and in hidden form with the \$User->priv value set to 'G'.

As a general user, you share the sitemap and the left "topnav" with the guests

The only 3 features added are 1. the general user version of the “EditProfile” (left), 2. The “change password while logged in” page, and 3. If you have bought something from the shop & merchandise list page, you will see your purchase history called “Transactions”, which can be found under “Personal Records” menu to the top-right navbar

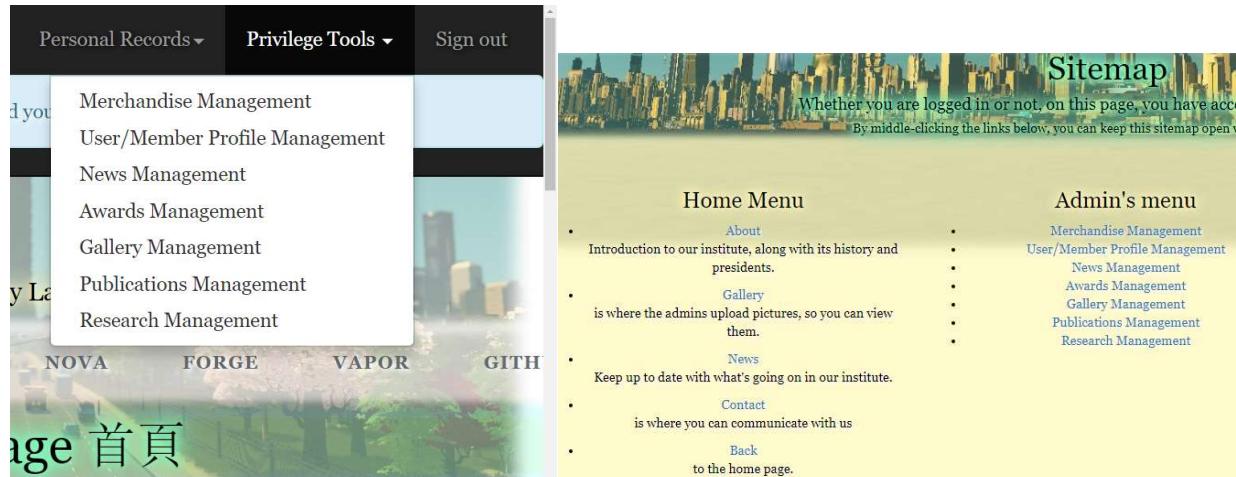


Here, you can change your profile data, including profile image upload.

In these 2 chapters, we have introduced all the common pages where the guests and the general users (i.e. non-admins) have access to. Note that some of the pages, like the merchandise individual page, have to be clicked “back” twice to return to the last page. And from the next chapter on, we will mention the admin’s part.

Chapter 3. Admin, Privileges, Middleware and Migrations

Owing to the middleware called “user.auth.admin”, administrators (or admins for short) have the whole access throughout the website, with the additional navigations shown below.



3.1 Laravel web structure

In laravel, web.php (**top-left, backend**) defines the URLs and calls controller functions, whilst the controllers (**top-right, backend**) defines php functions and utilizes the database models (**a.k.a. eloquent model, bottom-left, backend**), and extra sub-APIs (**such as illuminate (built in sub-API), image intervention, etc.**) to control the front-end files called “blades” (**bottom-right, front-end**), which receive bindings as defined variables. To see how each blade page of a feature (view subfolder) works, first, investigate the web.php and find the URL to it (**each blade file name and each web.php link are usually similar**), then look for the function in the controller and read the code, and finally, return to the blade page. Each feature is grouped by the *same* controller and the “**eloq**” model sets.

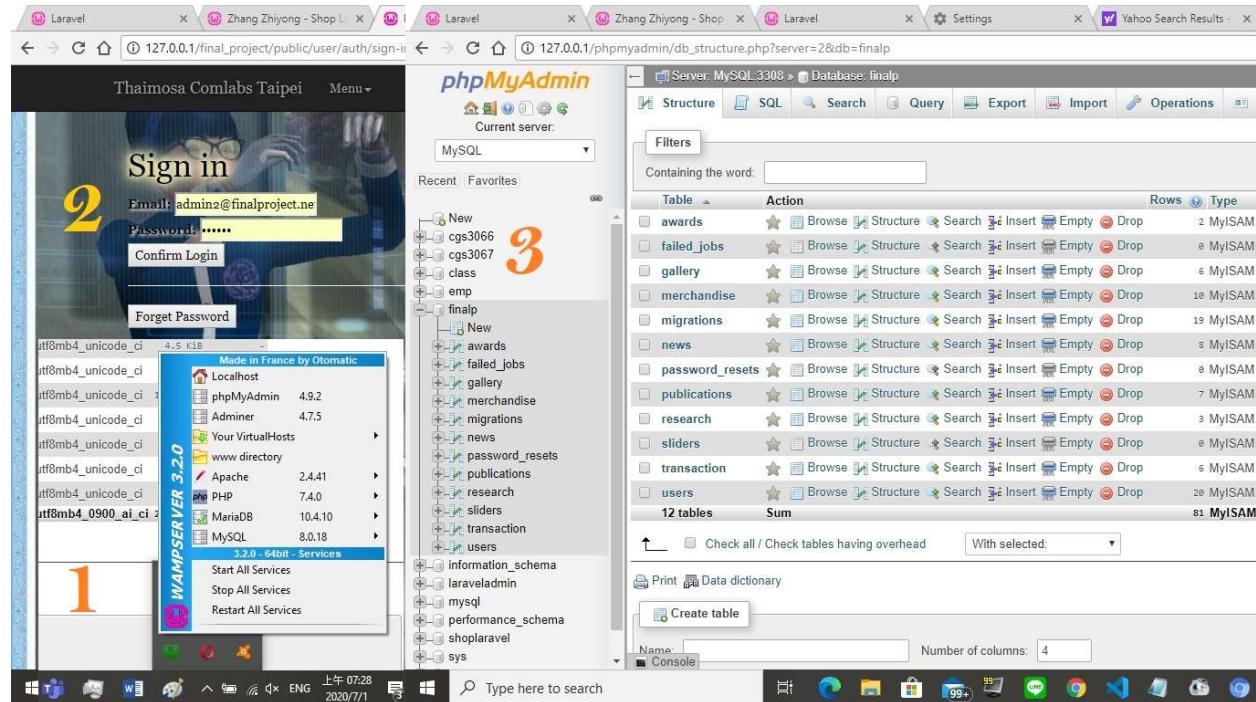
The image displays a developer's workspace with four separate windows of a code editor (VS Code) arranged horizontally. Each window shows a different file or component of a Laravel application:

- Top Left Window:** Shows the `web.php` file, which contains routes for various pages like `/forgetpassword.blade.php`, `/signin.blade.php`, and `/shop_laravel.cs`.
- Top Middle Window:** Shows the `ProfileController.php` file, which includes methods for handling user profile management.
- Bottom Left Window:** Shows the `User.php` file, which defines the `User` model extending `Model`.
- Bottom Middle Window:** Shows the `manageProfile.blade.php` file, which is a blade template for managing user profiles.

3.2 Getting started as admin

All models in this website are based on the admin's Laravel in-class project called "Laravel Shop". The merchandise feature, although not required, is the template to all other features.

To administer a website, you need to, 1. Turn the "wamp64" app on (required), 2. Log into the website as an admin (required), and 3. Log in as "root" to the "phpMyAdmin MySQL" server.



The third step is an optional process, but required during the migration to observe DB table structure change, and to alter the number and the properties of columns to edit the table, especially useful when the API throws database errors (i.e. involving columns, tables, DBs).

3.2.1 Database and Migrations

With the reason above, you cannot relocate your server without the destination machine having the database named "finalp" (*created as the root user, and pre-connected in the project, see the env file for more details*), and sufficient migrations via the "Terminal" console, and the phpMyAdmin MySQL server. Database handles the tables and the forms inserting data into them, which are controlled by the *function triplets* (the edit page, the create process, and the edit process functions), and the edit page blades. You may consider viewing my migration files if you wish.

To relocate/install the web project/server, you can just simply drop the project folder into the "c\wamp64\www" folder. Software relocation alone, however, is not enough to get the website up and running. To activate the database and its tables, you will need to "run migrations", whose correction can be checked by the statement whose figure is on the next page:

"For each feature, the table name, the eloq model name, the number and the structure of columns in 1. The eloq model, 2. The migration code, 3. The data array in the create process function of the controller, 4. The editor blade, and 5. The MySQL DB table, must all match"

1

2

3

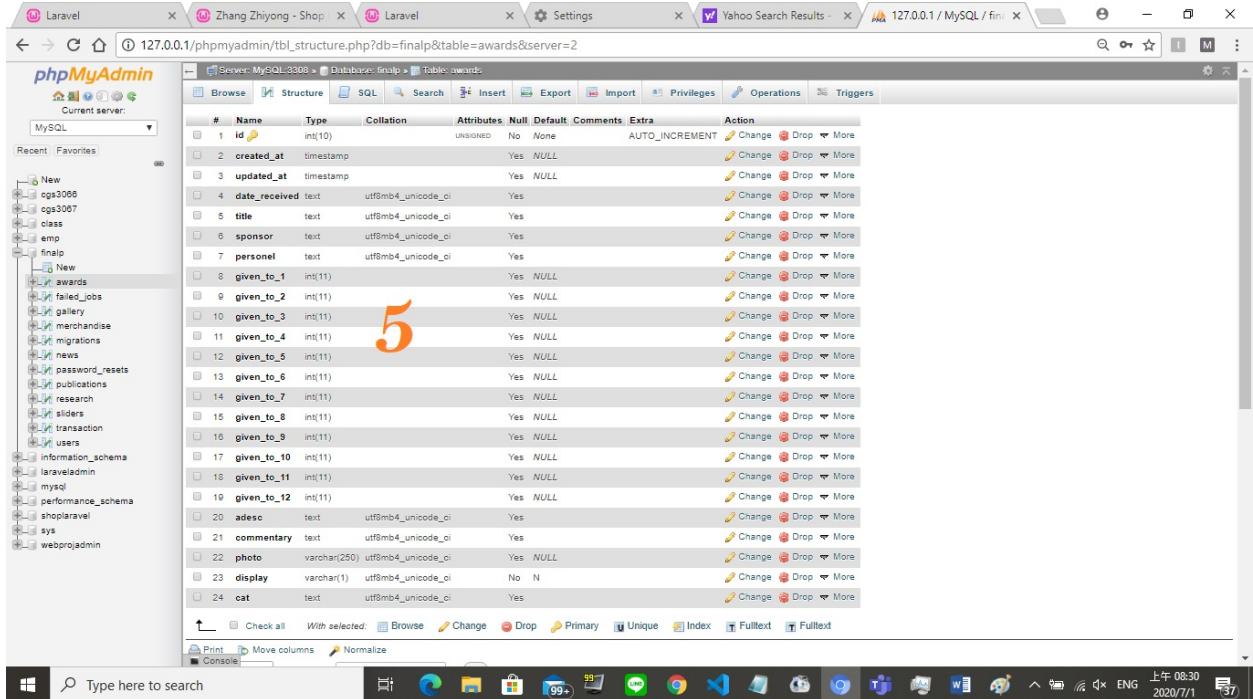
4

1

2

3

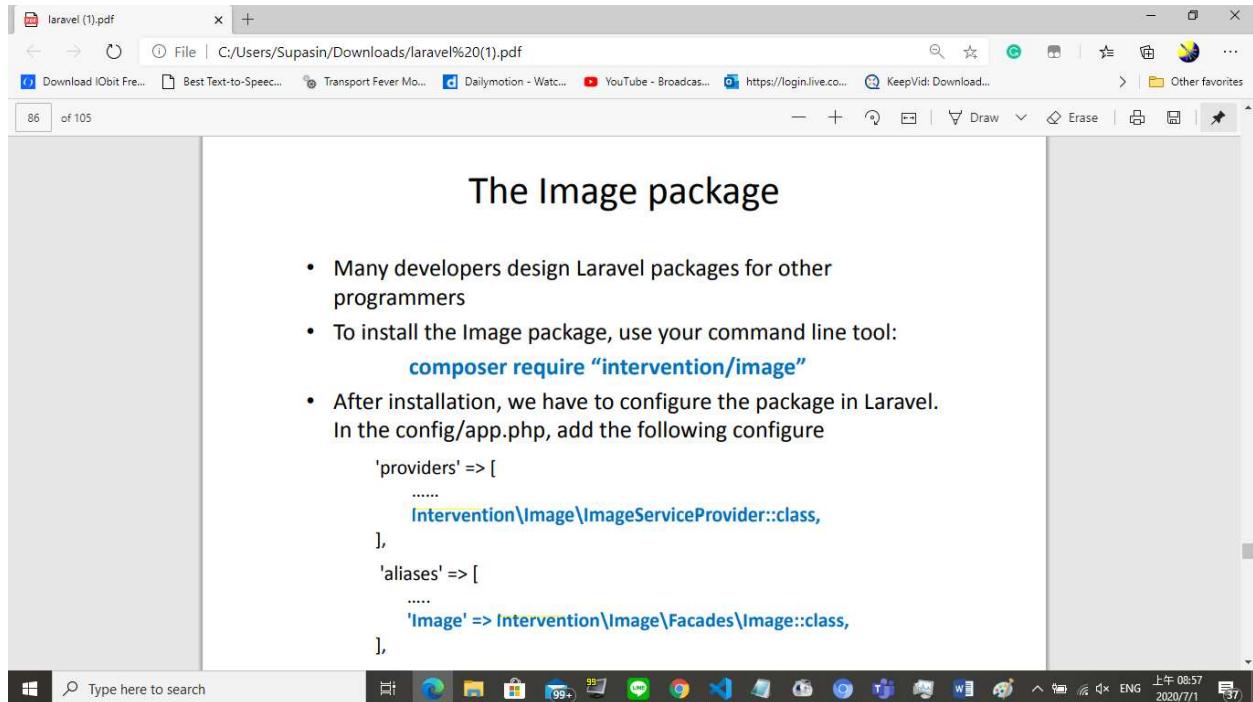
4



5

Owing to this statement, if you don't obey, the website will throw a series of database errors, so, more migration is needed. On the new server machine, you cannot directly use the old migrations, and you have to make a new file with the old migration code pasted into it. Luckily, in my version, the migration php files are so organized that they are ready to be run when pasted in new migration files. But if the error exists, we are sorry for the coding fault.

To activate the picture management module, if you see the error that the “intervention image” sub-API is absent, please follow the figure on the next page.



Chapter 4. The Profile Feature

The most complex feature in the project is the “User & Member Profile” feature, owing to the security concerns, there are 3 versions of *function pairs* (the page and the process functions) of the “Edit Page”, and 5 versions of the “list view” functions sharing the same blade (‘profile.listProfile’) but having different URLs, to categorize the personnel roles. All of the sorted profile lists (i.e. not the all button) are ordered by the ID# ascendingly.

ID	name	photo	email	position	organisation
31	Nisachol Rueangsingha		nisazoey@mail.thaimotalk.com	Undergraduate Student	Suppersyne College of Taiwan
35	Khemikar Vinthaivadhna		khem_vinthal@wuyang.com	Postgraduate Student	Suppersyne College of Taiwan

This picture indicates the main page of the main page of the profile list, whose menu has a turquoise glow.

Laravel | Profile List - Shop Laravel | Add a new profile as Admin | 127.0.0.1/final_project/public/user/profile/26/edit_n

Thaimosa Comlabs Taipei | Menu | Personal Records | Privilege Tools | Sign out

Your ID is #2 and your priv is A

Add a new profile as Admin

Display: Yes

Name: (Not the string "new user")
Amy Zheng

Email: (Not the string "user@user", and Has to be unique)
user@user

Password:

Privilege: General

Member Type: Undergrads

Organisation you belong to: Supersyne College of Taiwan

Telephone Number: N/A

Type here to search

Laravel | Profile List - Shop Laravel | Profile Edit as Guest - S | 127.0.0.1/final_project/public/user/profile/27/edit_g

Thaimosa Comlabs Taipei | Menu | Personal Records | Privilege Tools | Sign out

Your ID is #2 and your priv is A

Profile Edit as Guest

The photo failed to upload.

Display: Yes

Name: (Not the string "new user")
Samantha Yang

Email: (Not the string "user@user", and Has to be unique)
sam.y@wuyang.com

Member Type: Undergrads

Organisation you belong to: Supersyne College of Taiwan

Telephone Number: N/A

Type here to search

Laravel | Profile List - Shop Laravel | Profile Edit as Admin - S | 127.0.0.1/final_project/public/user/profile/31/edit_a

Thaimosa Comlabs Taipei | Menu | Personal Records | Privilege Tools | Sign out

Your ID is #2 and your priv is A

Profile Edit as Admin

Display: Yes

Name: (Not the string "new user")
Nisachol Rueangsingha

Email: (Not the string "user@user", and Has to be unique)
nissazoy@mail.thaimotalk.com

Privilege: General

Member Type: Undergrads

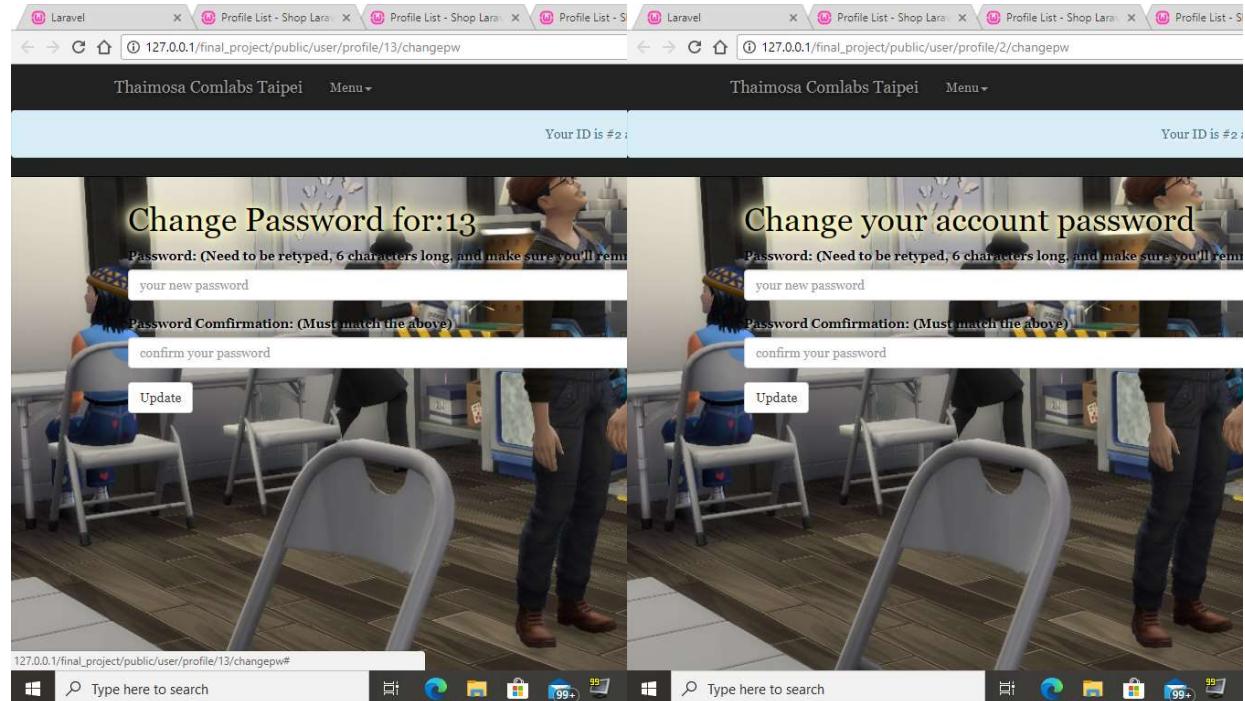
Organisation you belong to: Supersyne College of Taiwan

Telephone Number: N/A

Type here to search

3 Versions of the edit blade pages; top=the 'N' version. Middle = the 'A' version. Bottom = the 'G' version.

There are 3 Versions of the edit blade pages; 1. The 'N' version, reachable when a new profile is created on the admin's behalf, if an error occurs, you will be redirected to the G-version, but you can still edit the profile. 2. The 'A' version, whom only the admin has the access to, functions normally as other edit pages of other features, However, an admin may demote another one to appoint one another., and 3. The 'G' version, is reserved for general users, or your own account. The change password button has to be separated from the edit page in order to avoid re-hashing, and to prevent accidents. **Note** that your own account is on the same line with the edit button with **CAPITAL** letters.



127.0.0.1/final_project/public/user/profile/manage?page=3

Thaimosa Comlabs Taipei Menu ▾ Personal Records ▾ Privilege Tools ▾ Sign out

Your ID is #2 and your priv is A

14 Y Chang, Ronald V.		Academia Sinica	rchang@citi.sinica.edu.tw	886-2-2787-2300 #02-27872324	G FA	edit	change password
2 Y admin2_final		Suppersyne-Thaimosa: a Youtube Channel	admin2_finalproject.net	+886-97-415-1225	A PG	*EDIT*	*CHANGE PASSWORD*
13 Y Lee, Yuh-jye		Academia Sinica	yuh-jye@citi.sinica.edu.tw	886-2-2787-2300 #02-27872353	G FA	edit	change password

127.0.0.1/final_project/public/user/profile/13/changepw# 127.0.0.1/final_project/public/user/profile/2/changepw

The personal page has a detail in the picture blow – the best example for this is of Dr.Zhang Zhiyong from Tamkang University. (The hard links are right to the bottom of most list data pages.)

Name: Zhang Zhiyong

Site ID#: 23

Photo:

Email: cychang@mail.tku.edu.tw

Telephone: 02-2621-5656 #3329

Organisation: Tamkang University

Privilege: G

Introduction: Dr. Zhang Zhiyong, Distinguished Professor of Tamkang University in Taiwan. Director of Internet of Things and Big Data Research Center of Tamkang University of Technology; Adjunct Distinguished Professor of Chuzhou University; Adjunct Guest Professor of Beijing Jiaotong University; Review Member of Teaching Practice Program of Ministry of Education, Taiwan ACM SIGMOBILE Chapter Co-chairs of international organizations. He has served as a review committee member of the Information Science Department of the Ministry of Science and Technology; as an editorial board member and guest editor of many well-known journals indexed by SCI and EI, and has also served as the host of many large-scale research projects in Taiwan. Published more than 200 papers, of which more than 90 were published in internationally renowned SCI indexed journals, including many IEEE/ACM Transactions journal papers, and more than 150 were published in IEEE/ACM internationally renowned conferences, and won multiple best paper awards. He has hosted many international or cross-strait conferences and held important positions. Professor Zhang has many industry-university collaborations with industry, and most of his topics are focused on artificial intelligence, deep learning and machine learning, including Cheng Xi Information, PaPaGo, Sanli News Company, Artificial Intelligence Company, Ruiyang Information Company, Cool Xun search information, elite international education group, Taiwan Shouen company, etc. Professor Zhang published the first book "Introduction to the Internet of Things" in Taiwan (Qingfeng Book Company), which was also translated into simplified characters, published and used in the mainland, and has received numerous reports from various TV, print and digital media. Sixty universities and nearly twenty universities in mainland China have served as lectures and forums on the subject of Internet of Things and artificial intelligence. Hosted cross-strait IoT seminars and Anhui-Taiwan IoT seminars many times to promote the development of cross-strait IoT. Professor Zhang was invited by the Ministry of Education of Taiwan to lead the planning and promotion of the Internet of Things programs of various universities in Taiwan to cultivate talents for the Internet of Things industry. Won the "Outline of Internet of Things" Excellence Award and the "Embedded Wireless Sensing Course Module" of Taiwan Ministry of Education. Leading classmates to participate in competitions for many times won first prize for best paper and practical implementation. The main research areas include artificial intelligence and data analysis, including the Internet of Things, deep learning and machine learning, intelligent home care, wireless sensor networks, etc.

Awards: (IEETAC 2014 Best Paper Award ~ by Hongguang University of Science and Technology (2013). (2014 Internet of Things Talent Cultivation and Entrepreneurship Competition with the i-Home Smart Home System) (2nd) ~ by Yadong Institute of Technology (2014). (1st National Electronic Design Creative Competition for Design and Implementation of Central Control System for Smart Home (2nd) ~ by Department of Electronic Engineering, National Kaohsiung Normal University of Applied Sciences (2014)). (1st National Electronic Design Creative Competition with the "Design and Implementation of Smart Home Sub-Health Care System" ~ by Department of Electronic Engineering, Kaohsiung First University of Applied Sciences (2014))

Publications: [Zhiyong Zhang Towards Human Activity Recognition: A Hierarchical Feature Selection, Sensors 18(1), 3629, pp (2019)], [Yao-Wen Kuo; Chih-Yung Chang; Chao-Tsun Chang; Wen-Hwa Liao; Gwo-Jong Yu, Barrier Coverage Mechanism for Traffic Count in Wireless Sensor Networks, 2018 International Conference on Electronics Technology (ICET), 2018- 05-23]

Thesis Topic / Research Scope & Interests: wireless sensor networks, telecommunication network reliability, probability, surveillance, telecommunication scheduling, telecommunication traffic, Boolean algebra, telecommunication power management, Global Positioning System, access protocols, ad hoc networks, behavioural sciences computing, cameras, computational complexity, energy conservation, energy consumption, image sensors, indoor environment, mobile radio, object detection, power measurement, road traffic, road traffic control, scheduling, sensor placement View More

Thesis Abstract / Scope Description: (無線寬頻網路 (LTE-A / WiMAX 802.16) LTE-A / WiMAX IEEE 802.16d QoS 排程協定(QoS Scheduling) || LTE-A / WiMAX IEEE 802.16e 雙播排程機制(Sleep Mode Scheduling) || LTE-A / WiMAX IEEE 802.16j O 機器技術 (Deployment Mechanism) O QoS 排程協定 (QoS Scheduling) O 網路登錄技術 (Admission Control) LTE-A / WiMAX Mesh Network O 帶寬分配技術 (Bandwidth Allocation) O QoS 排程協定 (QoS Scheduling) O 機器人應用與局端元件整合), ([Android / iOS 系統平台] O Android 程式著作 || Android 平台與嵌入式系統整合 || iOS 程式著作 || iOS 平台與嵌入式系統整合), ([無線感測網 (Wireless Sensor Networks) || Mica 系列晶片] O RFID研發與著作 || SoC 1.5-4通訊協定 || MAC Layer 通訊協定 || Power Conservation Protocol) || 感測覆蓋率 (Coverage Problem) || 省電通訊協定 (Power Conservation Protocol) || 克障礙物協定 (Obstacle-Free Routing Protocol) || 物件追蹤 (Object Tracking) || 空洞處理 (Hole Handling) || 機器人網路 延伸與修復 (Robot Deployment and Repair) || 行動感測網路 (Mobile Sensor/Mobile Sink), ([無線隨即連網) (Mobile Ad Hoc Networks)] || 802.11a, 802.11b, 802.11g WiFi MAC Layer 通訊協定 || 多通道協定設計 (Multi-channel MAC protocol Establishment) O 線道安排 (Channel Assignment) O 省電協定 (Power Conservation) O 功率控制 (Power Control) O 速率控制 (Rate Control) O 方向性天線 (Directional Antenna) || AP 通訊協定設計 (Access Point Communication Protocol) || 802.11e 服務品質保證 (QoS Control) || Network Layer 通訊協定 O 群組協定 (Clustering Protocol) O 克障礙物協定 (Obstacle-Free Routing Protocol) O 位置與變換協定 (Location-Aware Routing Protocol) O 群組通訊協定 (Multicasting) O 廣播通訊協定 (Broadcasting) O 地域通訊協定 (Geocasting), ([無線網格網路 (Wireless Mesh Networks) || 網路拓樸 (Network Topology Control) || 線道配置與重配置 (Channel Assignment & Reassignment) || 線徑通訊協定 (Routing Protocol) || 多天線通訊協定 (Multi-Antenna Communication Protocol)), ([電信網路 (Telecommunication Networks) || 5G 核心網路 (Core Network) || 5G Radio Network || 行動管理 (Mobility Management) || 幫道配置 (Channel Assignment) || 三網整合 (WiFi+3G+Bluetooth) || 無縫通訊 (Seamless Communication), ([藍芽無線個人網路 (Bluetooth WPAN) || 網路拓樸控制 (Network Topology Control) || 流量管理 (Traffic Control) || 角色交換 (Role Switching) || 線徑通訊協定 (Routing Protocol) || 排程通訊協定 (Scheduling Protocol)), ([行動學習 (Mobile Learning) || 高互動自律學習(Hyper Interactive and Self-Regulated Learning) || 無縫學習 (Seamless Learning) || 行動學術 (Mobile Learning) || 情境學習 (Situated Learning)),

Links to personal awards: 6, 7, 8, 9,

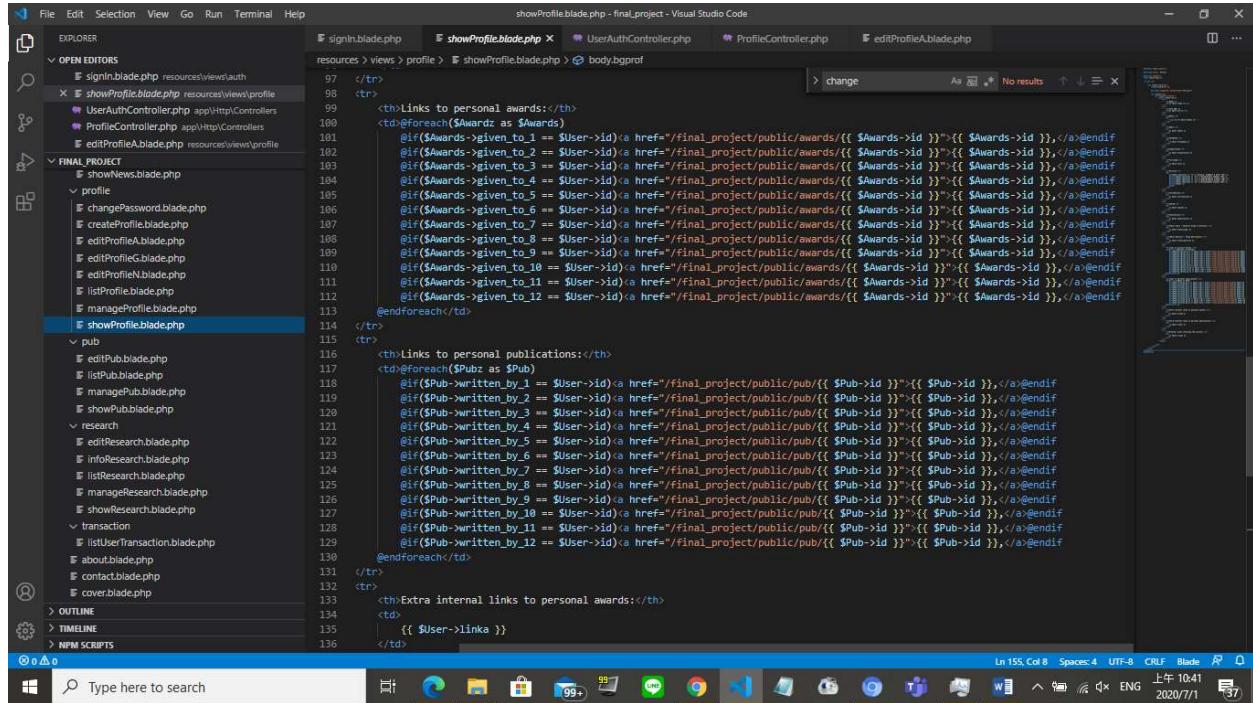
Links to personal publications: 9, 10, 11,

Extra internal links to personal awards: *

Extra internal links to personal publications: *

External links involving this person: https://wireless.csie.tku.edu.tw/~cychang/

If the shown person is a faculty member (\$User->position = 'FA'), the thesis topic and the abstract fields on the personal page is often replaced by the "research scope & description" text. The blue numbers on the link references are the "[soft links](#)", which is the internal reference to a person's awards and publications, whose algorithm can be written as below.

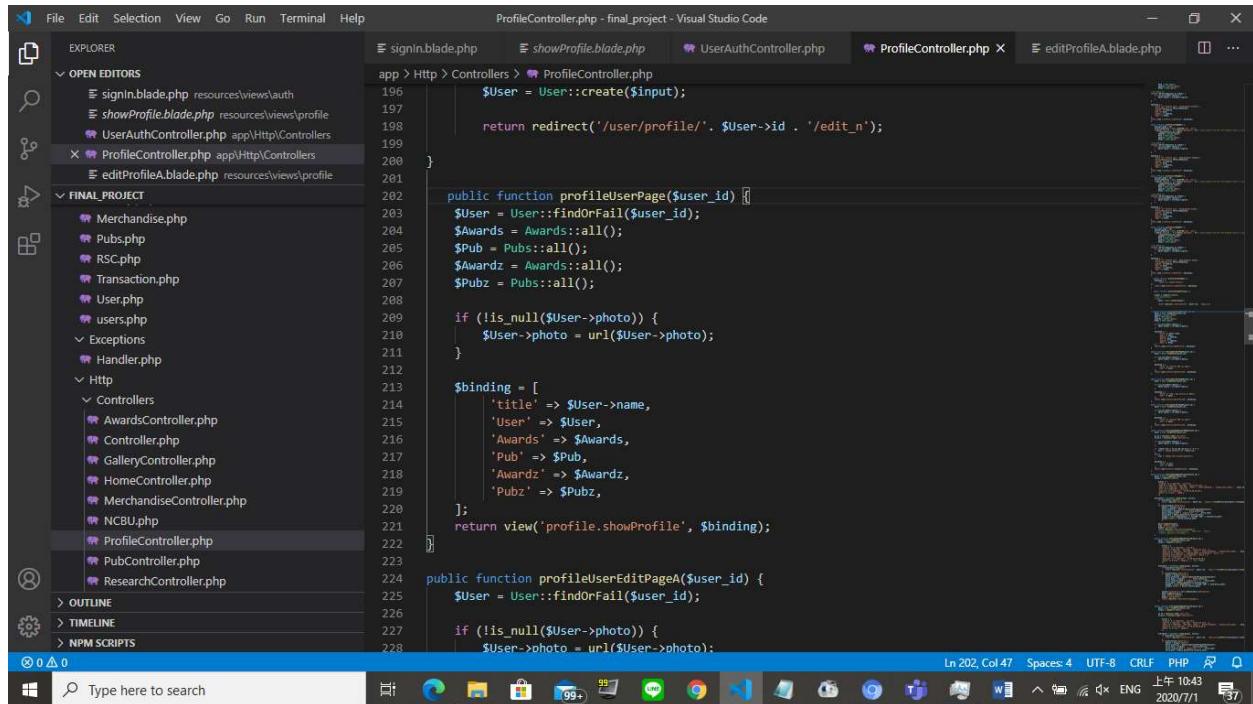


```

File Edit Selection View Go Run Terminal Help
EXPLORER
OPEN EDITORS
resources > views > profile > showProfile.blade.php > body.bprof
showProfile.blade.php - final_project - Visual Studio Code
resources > views > profile > showProfile.blade.php > body.bprof
97 <tr>
98   <th>Links to personal awards:</th>
99   <td>@foreach($awards as $awards)
100     @if($awards->given_to_1 == $User->id)<a href="/final_project/public/awards/{{ $awards->id }}><{{ $awards->id }}></a>endif
101     @if($awards->given_to_2 == $User->id)<a href="/final_project/public/awards/{{ $awards->id }}><{{ $awards->id }}></a>endif
102     @if($awards->given_to_3 == $User->id)<a href="/final_project/public/awards/{{ $awards->id }}><{{ $awards->id }}></a>endif
103     @if($awards->given_to_4 == $User->id)<a href="/final_project/public/awards/{{ $awards->id }}><{{ $awards->id }}></a>endif
104     @if($awards->given_to_5 == $User->id)<a href="/final_project/public/awards/{{ $awards->id }}><{{ $awards->id }}></a>endif
105     @if($awards->given_to_6 == $User->id)<a href="/final_project/public/awards/{{ $awards->id }}><{{ $awards->id }}></a>endif
106     @if($awards->given_to_7 == $User->id)<a href="/final_project/public/awards/{{ $awards->id }}><{{ $awards->id }}></a>endif
107     @if($awards->given_to_8 == $User->id)<a href="/final_project/public/awards/{{ $awards->id }}><{{ $awards->id }}></a>endif
108     @if($awards->given_to_9 == $User->id)<a href="/final_project/public/awards/{{ $awards->id }}><{{ $awards->id }}></a>endif
109     @if($awards->given_to_10 == $User->id)<a href="/final_project/public/awards/{{ $awards->id }}><{{ $awards->id }}></a>endif
110     @if($awards->given_to_11 == $User->id)<a href="/final_project/public/awards/{{ $awards->id }}><{{ $awards->id }}></a>endif
111     @if($awards->given_to_12 == $User->id)<a href="/final_project/public/awards/{{ $awards->id }}><{{ $awards->id }}></a>endif
112   @endforeach</td>
113   <td>@foreach($pub as $Pub)
114     <th>Links to personal publications:</th>
115     <td>@foreach($Pub as $Pub)
116       @if($Pub->written_by_1 == $User->id)<a href="/final_project/public/pub/{{ $Pub->id }}><{{ $Pub->id }}></a>endif
117       @if($Pub->written_by_2 == $User->id)<a href="/final_project/public/pub/{{ $Pub->id }}><{{ $Pub->id }}></a>endif
118       @if($Pub->written_by_3 == $User->id)<a href="/final_project/public/pub/{{ $Pub->id }}><{{ $Pub->id }}></a>endif
119       @if($Pub->written_by_4 == $User->id)<a href="/final_project/public/pub/{{ $Pub->id }}><{{ $Pub->id }}></a>endif
120       @if($Pub->written_by_5 == $User->id)<a href="/final_project/public/pub/{{ $Pub->id }}><{{ $Pub->id }}></a>endif
121       @if($Pub->written_by_6 == $User->id)<a href="/final_project/public/pub/{{ $Pub->id }}><{{ $Pub->id }}></a>endif
122       @if($Pub->written_by_7 == $User->id)<a href="/final_project/public/pub/{{ $Pub->id }}><{{ $Pub->id }}></a>endif
123       @if($Pub->written_by_8 == $User->id)<a href="/final_project/public/pub/{{ $Pub->id }}><{{ $Pub->id }}></a>endif
124       @if($Pub->written_by_9 == $User->id)<a href="/final_project/public/pub/{{ $Pub->id }}><{{ $Pub->id }}></a>endif
125       @if($Pub->written_by_10 == $User->id)<a href="/final_project/public/pub/{{ $Pub->id }}><{{ $Pub->id }}></a>endif
126       @if($Pub->written_by_11 == $User->id)<a href="/final_project/public/pub/{{ $Pub->id }}><{{ $Pub->id }}></a>endif
127       @if($Pub->written_by_12 == $User->id)<a href="/final_project/public/pub/{{ $Pub->id }}><{{ $Pub->id }}></a>endif
128     @endforeach</td>
129   <td>Extra internal links to personal awards:</th>
130   <td>{{ $User->links }}</td>
131 </tr>
132 </tr>
133 <th>Extra internal links to personal publications:</th>
134 <td>
135   {{ $User->links }}</td>
136 </tr>

```

And the page was bound twice by the same 2 eloq models to activate the reference loops.



```

File Edit Selection View Go Run Terminal Help
EXPLORER
OPEN EDITORS
resources > Http > Controllers > ProfileController.php
$User = User::create($input);
return redirect('/user/profile/'. $User->id . '/edit_n');

}
public function profileUserPage($user_id) {
$user = User::findOrFail($user_id);
$awards = Awards::all();
$pub = Pubs::all();
$awardz = Awardz::all();
$pubz = Pubz::all();

if (!is_null($user->photo)) {
$user->photo = url($user->photo);
}

$binding = [
'title' => $User->name,
'User' => $User,
'awards' => $awards,
'Pub' => $pub,
'awardz' => $awardz,
'pubz' => $pubz,
];
return view('profile.showProfile', $binding);

}
public function profileUserEditPageA($user_id) {
$user = User::findOrFail($user_id);

if (!is_null($user->photo)) {
$user->photo = url($user->photo);
}

```

With this loop, a user can refer to his internally uploaded works indefinitely.

For students, the thesis topic and the abstract remain the same meanings. The figure below is the admin's real profile page.

The screenshot shows a web browser window with four tabs open. The active tab displays a user profile for 'Supasin Wuthikulphakdi' with the URL 127.0.0.1:8000/public/user/profile/6. The page has a dark header with the text 'Thaimosa Comlabs Taipei' and 'Menu'. On the right side of the header are links for 'Personal Records', 'Privilege Tools', and 'Sign out'. A message at the top states 'Your ID is #6 and your priv is A'. The main content area features a large profile picture of a young man. Below it is a table with the following data:

Name	Supasin Wuthikulphakdi
Site ID#	6
Photo	
Email	supasin13rayong@gmail.com
Telephone	+86-97-415-1225
Organisation	Tamkang University
Privilege	A
Position	Postgraduate Student (PG)

Below the table, there are several sections with descriptive text:

- Introduction:** Hi, my name is Supasin Wuthikulphakdi, I'm a 1st year master student at CSIE-TKU and an admin of this final project website.
- Awards:** Yes, you can view on my Tumblr blog, whose link is below [#1]
- Publications:** Simulation of hydrogen production from sorptionenhanced chemical looping steam methane reforming [2]
- Thesis Topic / Research Scope & Interests:** Simulation of hydrogen production from sorptionenhanced chemical looping steam methane reforming
- Thesis Abstract / Scope Description:** This thesis, using thermodynamic analysis, aims to study, simulate, analyze, optimize, improve and develop modifications for the sorption enhanced chemical looping steam reforming process, to find the optimal conditions for each modification in the hydrogen production. The influence of independent variables such as the reformer temperature (Trfr), oxidizer temperature (Toxr), calcinator temperature (Tccr), the cupric oxide (CuO) flowrates, the methane split ratio to the reformer, and others were also observed and analysed at 1 atm. process pressure, to evaluate for process performance variables, for instance, the hydrogen output, the hydrogen purity, the methane conversion, the nitrogen purity, the CO₂ emission, and the process energy balance. The catalysts of this simulation are Nickel Oxide (NiO) and Cupric Oxide (CuO) coming along with Calcium Oxide (CaO) as the carbon dioxide adsorbent. The feedstocks are 1 kmol/s (kilomoles / second) of 100% pure methane and 3 kmol/s of 150°C, 1 atm. superheated steam. All process modifications are varied by the reforming and oxidizing temperatures of 450–900 °C and the calcium oxide and copper tear stream flowrate between 0–1.5 kmol/s each. The effects of excess cupric oxide are also studied, finding out that excess copper causes methane to combust, instead of reforming. Based on the simulation results, the most optimal process is the splitting methane process (Case C), with the reforming and oxidation temperature of 540 °C, the process pressure of 1 atm., and the split fraction to the reformer of 0.74, giving the maximum hydrogen production of 2.48444 kmol/s of 97.4761% pure hydrogen with 83.9338% stoichiometric efficiency, 97.3961% methane conversion, 0.97253 kmol/s carbon dioxide, 99.94% pure nitrogen, the balanced fundamental plantwide energy balance of -4.94 MW surplus and the advanced energy balance of -100 MW surplus. In terms of copper versus nickel, it was found that cupric oxide could better oxidize methane, confirmed by the exothermicity on both sides of redox in the hydrogen production than nickel oxide, whose only oxidation is exothermic, in the same process. In addition, the performance variables of each process behave differently according to the variance of the independent variables, and the form of the process, differentiating the right conditions for hydrogen production.
- Links to personal awards:** [1]
- Links to personal publications:** [1, 2, 6]
- Extra internal links to personal awards:**
- Extra internal links to personal publications:**
- External links involving this person:** #1. <https://supersineportfolio.tumblr.com> #2. <https://yadi.sk/i/PtjBDks83sZgyA>

The profile list, despite using the same blade will differ in link and the people with sorted role will also be sorted by ID ascendingly. (admin2_final is the site's main admin account)

The top screenshot shows the 'Profile List ~ Faculty, Academics & Staff' page. It displays two profiles:

ID	name	photo	email	position	organisation
7	Yang, Yi-Hsuan		yang@citi.sinica.edu.tw	Faculty, Academic & Staff	Academia Sinica
8	Lab Vice President - Huang, Yen-Nun		yennunhuang@gmail.com	Faculty, Academic & Staff	Academia Sinica

The bottom screenshot shows the 'Profile List ~ Postgraduate Students' page. It displays two profiles:

ID	name	photo	email	position	organisation
1	final_admin		fadmin@gmail.com	Postgraduate Student	Tamkang University
2	admin2_final		admin2@finalproject.net	Postgraduate Student	Suppersyne-Thaimosa: a Youtube Channel

Let me explain the **hard links**, a **hard link** is the URL in the form of plain text, which can be reached by simply dragging it into the URL box (+enter)/tab bar of the browser. For the mobile device, you tap it for 3 seconds and you have an option to “browse” it, both of this approach is called “**Hard Reference**”. In my project, hard links are useful when typing multiple URLs in a DB table column, or you have exceeded the 12 people reference limit to an award or a publication (academic paper).

Laravel Profile List - Shop Laravel Profile List - Shop Laravel Profile List - Shop Laravel

127.0.0.1/final_project/public/user/profile/undergrad

Thaimosa Comlabs Taipei Menu Personal Records Privilege Tools Sign out

Your ID is #6 and your priv is A

Profile List ~ Undergraduate Students

Select whom to be shown below:

All | Faculty, Academics & Staff | Postgraduates | Undergraduates | Postgraduate Alumni | Undergraduate Alumni

ID	name	photo	email	position	organisation
27	Samantha Yang		sam.y@wuyang.com	Undergraduate Student	Suppersyne College of Taiwan
31	Nisachol Rueangsingha		nisa.zoey@mail.thaimotalk.com	Undergraduate Student	Suppersyne College of Taiwan

Type here to search

上午 11:10 2020/7/1

Laravel Profile List - Shop Laravel Profile List - Postgraduates Profile List - Shop Laravel

127.0.0.1/final_project/public/user/profile/alumni-p

Thaimosa Comlabs Taipei Menu Personal Records Privilege Tools Sign out

Your ID is #6 and your priv is A

Profile List ~ Postgraduate Alumni

Select whom to be shown below:

All | Faculty, Academics & Staff | Postgraduates | Undergraduates | Postgraduate Alumni | Undergraduate Alumni

ID	name	photo	email	position	organisation
28	Pan, Tzong-Jhuu 潘宗哲		jasonpan@mail.thaimotalk.com	Postgraduate Alumnus	Suppersyne College of Taiwan
29	Evelyn Pan		elpan@mail.thaimotalk.com	Postgraduate Alumnus	Suppersyne-Thaimosa: a Youtube Channel

Type here to search

上午 11:11 2020/7/1

Please notice that each of the top
 strings on every blade page is designed to operate under the
 100% magnification on 1366x768 screens

ID	name	photo	email	position	organisation
26	Amy Zheng		Amyzheng@wuyang.com	Undergraduate Alumnus	Suppersyne-Thaimosa: a YouTube Channel
30	Zoey Ryoo		z.roo@mail.thaimotalk.com	Undergraduate Alumnus	Suppersyne College of Taiwan

Chapter 4. The Research, Publications and Awards.

On this website, the research feature is structurally akin to the publication one. Codes of the earlier feature acts as a backup for the latter. To access this feature, you need to go to the static blade named “infoResreach.blade.php”, whose routing is “http://127.0.0.1/final_project/public/research”.

The faculty members of our department are very active in international organizations and play roles as program committee members and session chairs in many important conferences such Annual International Conference on Research in Computational Molecular Biology (ACM RECOMB), IEEE International Conference on Robotics and Automation (ICRA), IEEE Conference on Control Applications (CCA), IEEE Conference on Decision and Control, American Control Conference, IEEE Real-Time Systems Symposium (RTSS), IEEE Real-Time Technology and Embedded Applications Symposium (RTAS), International Conference on Parallel Processing (ICPP), International Symposium on Fault-Tolerant Computing (FTCS), IEEE International Conference on Computer-Aided Design (ICCAD) and IEEE International Conference on Multimedia and Explore. They also won many honors including four IEEE fellows, eight NSC outstanding research awards and three Sinica young researcher awards. In addition, they also work closely with the industry, owning patents and founding companies.

Step 1.

Thaimosa Comlabs Taipei Menu Sign in Sign up

Research List

title	authors	link to the authors' pages	date published
An Example of a Research Paper	Admin2 ,Supasin Wuthikulphakdi	1, 2, 5, 6	2020-06-29
Dictionary-Based Music Signal Analysis, Understanding, and Retrieval	Yi-Hsuan Yang	7	2020-06-27
Sample Research Proposal	Admin2 ,Supasin Wuthikulphakdi	2, 6	2020-06-27

Type here to search

Step 2.

Thaimosa Comlabs Taipei Menu Sign in Sign up

An Example of a Research Paper

here we store some notable examples of academic papers whose templates should be followed

Title	An Example of a Research Paper
Date Published	2020-06-29
Authors	Admin2 ,Supasin Wuthikulphakdi
Authors' IDs	1, 2, 5, 6
Abstract	This packet will show you what your final Science Fair written report should look like. Include page numbers on each page of your paper. Each page should be labeled with the name of the section except for the Title Page and the Table of Contents. All other pages should be titled with the name of the section.
Introduction	INTRODUCTION (SECTION 3) Explain how and why you chose this experiment. Include important background information that relates to your topic. Remember to grab your reader's attention. Get them as interested in your topic as you are. INCLUDE SOME RESEARCH ON YOUR TOPIC. The introduction should be no more than one page. Grammar and spelling count.
Methods	MATERIALS AND PROCEDURES (SECTION 6) List materials vertically and be specific. Use materials' names and amounts. Explain your procedure step by step, in sequential order. Use appropriate measurements and units when necessary. Drawings, sketches, pictures help make your method more clear...include them. If you constructed any materials or equipment, explain them HERE. Include safety information and multiple trials of your experiment to demonstrate a good sample size. Grammar and spelling count.
Results & Discussion	DATA/OBSERVATIONS/RESULTS (SECTION 7) Present your results neatly in paragraph form to show evidence of your findings. You must ALSO INCLUDE A CHART/GRAPH/TABLE/PHOTOS. Make sure they are well organized, understandable, and properly labeled. Grammar and spelling count.
Conclusion	CONCLUSION (SECTION 8) Write this section after you have finished preparing your results. Briefly summarize your results in the past tense. Restate your hypothesis in the present tense and tell how your data supported or did not support your hypothesis. Give your interpretation of your results and discuss their significance. Don't hesitate to mention difficulties you had or mistakes you made. Include other information that relates to your project that you obtained through research. Give one or two suggestions for what the next experiment might be (related to your experiment) based on your results. Grammar and spelling count.
References	BIBLIOGRAPHY (SECTION 10) List any books, articles, websites, etc. that you used or got information from for your project. Make sure they are listed in alphabetical order and in the appropriate format Use the attached format for your bibliography.
Links	https://www.myperfectwords.com/blog/research-paper-examples/scientific-research-paper-example.pdf

Type here to search

And step 3.

The research table. However, is not the main publications table. To read academic papers, you need to go to the publication tab of the dropdown menu. Then click on an article's title.

title	category/discipline	authors	internal reference	date published
Towards Human Activity Recognition: A Hierarchical Feature Selection Framework	activity recognition; hierarchical model; feature selection; information infusion	Aiguo Wang 1,2 , Guilin Chen 2,* , Xi Wu 1 , Li Liu 3 , Ning An 1 and Chih-Yung Chang 4	23	2018-10-25
Joint Sensor Energy Conservation and Mobile Sink Cooperation for Data Collection in WSNs	collection point; network lifetime; rendezvous time; energy consumption;	Chih-Yung Chang 1 , Wen-Hwa Liao 2 , Gwo-Jong Yu 3 , Shih-Jung Wu 1 , Chih-Kai Chang 2	23	2020-06-04
An In-Band Full Duplex MAC Protocol with Interference Free for Next Generation WLANs	Component; In-band full-duplex technology (IBFD); Inter-Station Interference Problem (ISIP); Wireless Local Area Networks (WLANs)	Shi Guiping	24	2018-07-02
Evaluating the Risk of Data Disclosure Using Noise Estimation for Differential Privacy	Cybersecurity, Data Privacy, Differential Privacy.	Hung-Li Chen*, Jia-Yang Chen†, Yao-Tung Tsou*, Chia-Mu Yu‡, Bo-Chen Tai§, Szu-Chuang Li§, Yennun Huang§ and Chia-Ming Lin¶	8, 25	2017-01-22
Barrier Coverage Mechanism for Traffic Count in Wireless Sensor Networks	wireless sensor networks; barrier coverage; probabilistic sensing; traffic count	Chih-Yung Chang, Yao-Wen Kuo, Chao-Tsun Chang, Wen-Hwa Liao.	23	2018-07-02
Metabolic repair through emergence of new pathways in <i>Escherichia coli</i>	Bacteria, Enzymes, Metabolic pathways	Sammy Pontrelli, Riley C. B. Fricke, Shao Thing Teoh, Walter A. Laviña, Sastha Prama Putri, Sorel Fitz-Gibbon, Matthew Chung, Matteo Palloncini, Hiroyuki Fukusaki & James C. Liao.	22	2018-10-16

Evaluating the Risk of Data Disclosure Using Noise Estimation for Differential Privacy

Title: Evaluating the Risk of Data Disclosure Using Noise Estimation for Differential Privacy

Category / Discipline / Keywords: Cybersecurity, Data Privacy, Differential Privacy.

Date Published: 2017-01-22

Authors: Hung-Li Chen*, Jia-Yang Chen†, Yao-Tung Tsou*, Chia-Mu Yu‡, Bo-Chen Tai§, Szu-Chuang Li§, Yennun Huang§ and Chia-Ming Lin¶

Authors' IDs: 8, 25

Abstract: Differential privacy is a recent notion of data privacy protection, which does not matter even when an attacker has arbitrary background knowledge in advance. Consequently, it is viewed as a reliable protection mechanism for sensitive information. Differential privacy introduces Laplace noise to hide the true value in a dataset while preserving statistic properties. However, the large amount of Laplace noise added into a dataset is typically defined by the discursive scale parameter of the Laplace distribution. The privacy parameter ϵ in differential privacy is with theoretical interpretation, but the implication on the risk of data disclosure (called RoD for short) in practice has not yet been studied. Moreover, choosing appropriate value for ϵ is not an easy task since it impacts the level of privacy in a dataset significantly. In this paper, we define and evaluate the RoD in a dataset with either numerical or binary attributes for numerical or counting queries with multiple attributes based on the noise estimation. Through confidence probability of noise estimation, we give a simple way to choose the privacy parameter ϵ . Finally, we show the relation of the RoD and privacy parameter ϵ in experimental results. To the best of our knowledge, this is the first research work in using noise estimation to practically evaluate the RoD for multiple attributes (both numerical and binary data). Keywords-Differential privacy; Laplace noise; RoD; synthetic dataset; multi-dimensional data.

Are you wondering why we can refer to several academics on our server? The secret is in on the edit page and in the backend of the “pub” feature. The eloquent model of this feature is “Pubs”. The figure displaying the backend of this page is on the next page. The [soft link](#) to user profiles is clickable, and at the profile page, this one to the papers/awards can be clicked back. (See the source code for more details). Each award/paper can be [soft-referred](#) up to 12 users.

editPub.blade.php

```

resources > view > pub > editPub.blade.php > body.bgpub > br
46   value="{{ old('cat', $pub->cat) }}";
47 </div>
48 <div class="form-group">
49   label for="date_pub">Date Published (If only the year is known, assume July 1st. Or if the day of a month is unknown, enter the full date.)<br>
50   <input type="date" class="form-control" id="date_pub"
51     name="date_pub" placeholder="Date Received"
52     value="{{ old('date_pub', $pub->date_pub) }}">
53 </div>
54 <div class="form-group">
55   label for="personel">Authors</label>
56   <input type="text" class="form-control" id="personel"
57     name="personel" placeholder="personel"
58     value="{{ old('personel', $pub->personel) }}">
59 </div>
60 <div class="form-group">
61   label for="cat">Category<br>
62   <input type="number" class="form-control" id="written_by_1" name="written_by_1" placeholder="Written by someone in category 1">
63   <input type="number" class="form-control" id="written_by_2" name="written_by_2" placeholder="Written by someone in category 2">
64   <input type="number" class="form-control" id="written_by_3" name="written_by_3" placeholder="Written by someone in category 3">
65   <input type="number" class="form-control" id="written_by_4" name="written_by_4" placeholder="Written by someone in category 4">
66   <input type="number" class="form-control" id="written_by_5" name="written_by_5" placeholder="Written by someone in category 5">
67   <input type="number" class="form-control" id="written_by_6" name="written_by_6" placeholder="Written by someone in category 6">
68   <input type="number" class="form-control" id="written_by_7" name="written_by_7" placeholder="Written by someone in category 7">
69   <input type="number" class="form-control" id="written_by_8" name="written_by_8" placeholder="Written by someone in category 8">
70   <input type="number" class="form-control" id="written_by_9" name="written_by_9" placeholder="Written by someone in category 9">
71   <input type="number" class="form-control" id="written_by_10" name="written_by_10" placeholder="Written by someone in category 10">
72   <input type="number" class="form-control" id="written_by_11" name="written_by_11" placeholder="Written by someone in category 11">
73   <input type="number" class="form-control" id="written_by_12" name="written_by_12" placeholder="Written by someone in category 12">
74 </div>
75 <div class="form-group">
76   label for="abstract">Abstract</label>
77   <input type="text" class="form-control" id="abstract"
78     name="abstract" placeholder="abstract"
79     value="{{ old('abstract', $pub->abstract) }}">
80 </div>
81 <div class="form-group">
82   label for="intro">Introduction</label>
83   <input type="text" class="form-control" id="intro"
84     name="intro" placeholder="intro"
85     value="{{ old('intro', $pub->intro) }}">
86 </div>
87 <div class="form-group">
88   label for="methods">Methods</label>
89   <input type="text" class="form-control" id="methods"
90     name="methods" placeholder="methods"
91     value="{{ old('methods', $pub->methods) }}">
92 </div>

```

showPub.blade.php

```

<td>{{ $Pub->date_pub }}</td>
<tr>
<th>Authors</th>
<td>{{ $Pub->personel }}</td>
</tr>
<tr>
<th>Authors' IDs</th>
<td>
@Foreach($Profile as $User)
@if($User->id == $Pub->written_by_1)><a href="/final_project/public/user/profile/{{ $User->id }}"/>{{ $Pub->written_by_1 }}</a>
@if($User->id == $Pub->written_by_2)><a href="/final_project/public/user/profile/{{ $User->id }}"/>{{ $Pub->written_by_2 }}</a>
@if($User->id == $Pub->written_by_3)><a href="/final_project/public/user/profile/{{ $User->id }}"/>{{ $Pub->written_by_3 }}</a>
@if($User->id == $Pub->written_by_4)><a href="/final_project/public/user/profile/{{ $User->id }}"/>{{ $Pub->written_by_4 }}</a>
@if($User->id == $Pub->written_by_5)><a href="/final_project/public/user/profile/{{ $User->id }}"/>{{ $Pub->written_by_5 }}</a>
@if($User->id == $Pub->written_by_6)><a href="/final_project/public/user/profile/{{ $User->id }}"/>{{ $Pub->written_by_6 }}</a>
@if($User->id == $Pub->written_by_7)><a href="/final_project/public/user/profile/{{ $User->id }}"/>{{ $Pub->written_by_7 }}</a>
@if($User->id == $Pub->written_by_8)><a href="/final_project/public/user/profile/{{ $User->id }}"/>{{ $Pub->written_by_8 }}</a>
@if($User->id == $Pub->written_by_9)><a href="/final_project/public/user/profile/{{ $User->id }}"/>{{ $Pub->written_by_9 }}</a>
@if($User->id == $Pub->written_by_10)><a href="/final_project/public/user/profile/{{ $User->id }}"/>{{ $Pub->written_by_10 }}</a>
@if($User->id == $Pub->written_by_11)><a href="/final_project/public/user/profile/{{ $User->id }}"/>{{ $Pub->written_by_11 }}</a>
@if($User->id == $Pub->written_by_12)><a href="/final_project/public/user/profile/{{ $User->id }}"/>{{ $Pub->written_by_12 }}</a>
@endif
@EndForeach</td>
</tr>
<tr>
<th>Abstract</th>
<td>{{ $Pub->abstract }}</td>
</tr>
<tr>
<th>Introduction</th>
<td>{{ $Pub->intro }}</td>

```

Laravel

127.0.0.1 / phpmayadmin/tbl_structure.php?db=final&t=publications&server=2

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	<code>id</code>	int(10)		UNSIGNED	No	None	AUTO_INCREMENT		
2	<code>created_at</code>	timestamp			Yes	NULL			
3	<code>updated_at</code>	timestamp			Yes	NULL			
4	<code>date_pub</code>	date			Yes	NULL			
5	<code>title</code>	text	utf8mb4_unicode_ci		Yes				
6	<code>personel</code>	text	utf8mb4_unicode_ci		Yes				
7	<code>written_by_1</code>	int(11)			Yes	NULL			
8	<code>written_by_2</code>	int(11)			Yes	NULL			
9	<code>written_by_3</code>	int(11)			Yes	NULL			
10	<code>written_by_4</code>	int(11)			Yes	NULL			
11	<code>written_by_5</code>	int(11)			Yes	NULL			
12	<code>written_by_6</code>	int(11)			Yes				
13	<code>written_by_7</code>	int(11)			Yes	NULL			
14	<code>written_by_8</code>	int(11)			Yes	NULL			
15	<code>written_by_9</code>	int(11)			Yes	NULL			
16	<code>written_by_10</code>	int(11)			Yes	NULL			
17	<code>written_by_11</code>	int(11)			Yes	NULL			
18	<code>written_by_12</code>	int(11)			Yes	NULL			
19	<code>abstract</code>	text	utf8mb4_unicode_ci		Yes				
20	<code>intro</code>	text	utf8mb4_unicode_ci		Yes				
21	<code>methods</code>	text	utf8mb4_unicode_ci		Yes				
22	<code>result_discn</code>	text	utf8mb4_unicode_ci		Yes				
23	<code>conclusions</code>	text	utf8mb4_unicode_ci		Yes				
24	<code>refren</code>	text	utf8mb4_unicode_ci		Yes				
25	<code>linkz</code>	text	utf8mb4_unicode_ci		Yes				
26	<code>display</code>	varchar(1)	utf8mb4_unicode_ci		No	N			
27	<code>cat</code>	text	utf8mb4_unicode_ci		Yes				

Pubs.php

```

class Pubs extends Model {
  protected $table = 'publications'; //The Table Name
  protected $primaryKey = 'id';
  protected $fillable = [
    "created_at",
    "updated_at",
    "date_pub",
    "title",
    "cat",
    "personel",
    "written_by_1",
    "written_by_2",
    "written_by_3",
    "written_by_4",
    "written_by_5",
    "written_by_6",
    "written_by_7",
    "written_by_8",
    "written_by_9",
    "written_by_10",
    "written_by_11",
    "written_by_12",
    "abstract",
    "intro",
    "methods",
    "result_discn",
    "conclusions",
    "refren",
    "linkz",
    "display",
  ];
}

```

[Top left = edit pub blade], [Top right = show pub blade], [Bottom left = the publications table in “finalp” database], & [Bottom Right = the Pubs eloquent model]

The screenshot shows a Windows desktop with a web browser open to two different user profile pages. Both pages have a header "Thaimosa Comlabs Taipei" and a menu bar.

Left Page (Awards/ Publications):

- Title:** 11th National Electronic Design Creative Competition
- Category:** Design
- Photo:** NKUST logo
- Date Received:** 2014
- Winners (personel):** Zhang Zhiyong
- Winners' IDs:** 23
- Description:** [empty]
- Commentary:** [empty]

Right Page (Thesis Abstract):

- Thesis Abstract / Scope Description:** [Large block of Chinese text detailing various wireless communication technologies and protocols.]
- Links to personal awards:** 6, 7, 8, 9,
- Links to personal publications:** 9, 10, 11,

At the bottom of the browser window, there are two search bars and a taskbar with various icons.

The awards/publications, up to 12 [soft references](#) each, can be referred to user profile pages and vice versa.

The screenshot shows a Windows desktop with a web browser displaying a list of awards and publications. The top navigation bar includes "Personal Records", "Privilege Tools", and "Sign out".

Awards/ Publications:

- Internet of Things Talent Cultivation and Entrepreneurship Competition with the "i-Home Smart Home System"
- IETAC 2014 Best Paper Award
- Promotion to an Assistant Research Fellow
- Promotion to Associate Research Fellow
- Young Researcher Award

Right Side (Certificates):

- 23 2014 [Logo of National Kaohsiung Normal University]
- 23 2013 [Image of a building]
- 18 2 March 2020 [Text: to announce the appointment of Dr. Tur arch Fellow, effective 2 March 2020]
- 19 June 18, 2019 [Text: ns to Dr. Chuan-Ju Wang for being promoted to Dr. Chi-Yu Wang for receiving the cher Award 2019]
- 11 2019 [Text: ns to Dr. Chi-Yu Wang for receiving the cher Award 2019]

At the bottom of the browser window, there are two search bars and a taskbar with various icons.

In the awards table, the photos (an optional column in the DB table of “awards”) can be anything referring the rewards, such as the logo of the sponsor/giver, the certificate, the trophy, the news poster, etc. And on the publications edit page, the abstract field and above should be enough to meet the project requirements.

The screenshot shows a web browser with multiple tabs open. The active tab is 'Edit - Shop Lar' at '127.0.0.1/final_project/public/pub/11/edit'. The page title is 'Thaimosa Comlabs Taipei'. The main content is a form for editing a publication. The form fields include:

- Title:** Towards Human Activity Recognition: A Hierarchical Feature Selection Framework
- Category / Discipline / Keywords:** activity recognition; hierarchical model; feature selection; information infusion
- Date Published:** 2018-10-25
- Authors:** Aiguo Wang 1,2 , Guilin Chen 2,* , Xi Wu 1 , Li Liu 3 , Ning An 1 and Chih-Yung Chang 4
- Authors' IDs:** 23
- Abstract:** The inherent complexity of human physical activities makes it difficult to accurately recognize activities with wearable sensors. To this end, this paper proposes a hierarchical activity recognition framework and two different feature selection methods. The proposed framework defines a tree structure to represent the characteristics of human activities, predefined activities of interest are grouped into nodes, and each leaf node represents a specific activity. The feature space of each node is defined by the union of the feature space of its children. Finally, we train corresponding classifiers for each leaf-node in a top-down fashion to predict its activity label. To evaluate the performance of the proposed framework, extensive comparative experiments on publicly available datasets are conducted. The experimental results show that the proposed framework outperforms state-of-the-art methods in terms of accuracy and robustness.
- Introduction:** With the rapid development of network communication technology

The right side of the screen shows a preview of the publication's cover image, which is a photograph of a person's hand holding a device. The bottom of the screen shows a Windows taskbar with various icons.

This bottom figure displays the edit page of the site's awards feature

The screenshot shows a web browser with multiple tabs open. The active tab is 'Awards Edit - Shop Lar' at '127.0.0.1/final_project/public/awards/9/edit'. The page title is 'Thaimosa Comlabs Taipei'. The main content is a form for editing an award entry. The form fields include:

- Display:** Yes
- Awards Title:** 11th National Electronic Design Creative Competition with the "Design and Implementation of Electronic Products"
- Category:** Design
- Date received:** 2014
- Given by:** Department of Electronic Engineering, Kaohsiung First University of Applied Sciences
- Winners:** Chang Zhiyong
- Given to (Member ID#):** 23
- Photo:** A thumbnail image of a road at night with the NKUST logo overlaid.
- Description:** adesc
- Commentary/Reference:** commentary

The right side of the screen shows a preview of the award's cover image, which is a photograph of a road at night. The bottom of the screen shows a Windows taskbar with various icons.

Categories in the “Awards” feature are not fixed, and neither is this one of the “Publications”. On the awards edit page, it depends on the admin’s criteria to categorize the awards. And for the publications, each of the “\$Pubs->cat” row on the “pub” table is usually a paper’s keywords.

Chapter 5. The Personal Records, the News, the Gallery & Conclusion.

5.1 Personal Records and Transactions

In this module, we will introduce the missing module called “the transactions”. Transaction records a user’s shopping history regardless of privilege, and is the part of the “Shop & Merchandise” module, the template to this website.

The screenshot shows a web browser window with four tabs open: "Laravel", "Shopping List: Transaction", "News List - Shop Laravel", and "phpMyAdmin". The main content area displays a table titled "Shopping List: Transaction Records". The table has columns: name, photo, price, buy_count, total_price, and created_at. The data in the table is as follows:

name	photo	price	buy_count	total_price	created_at
Sample Merchandise		100	4	400	2020-06-22 16:14:57
Taiwan Sticker		100	5	500	2020-06-22 16:08:10
Sample Merchandise		100	5	500	2020-06-22 16:08:02
Sample Merchandise		100	1	100	2020-06-22 15:53:32

5.2 The News

On this website, news are sorted by announcement date (\$News->newsdate) descendingly on the homepage and the news list. The eloquent model name is “FXG” and the controller is NCBU, with a class name of “NewsController”, and can be called by the web.php file.

The screenshot shows a web browser window with four tabs open: "Laravel", "Shopping List: Transaction", "News List - Shop Laravel", and "phpMyAdmin". The main content area displays a news feed with the title "News 最新消息". The news items are listed in a table with columns: Date, Title, and Visits. The data in the table is as follows:

Date	Title	Visits
2020-06-30	MSI invites college and postgraduate students of our department to graduates	1
2020-06-30	Japanese sister school Hosei University 2021 Hosei International Fund (HIF) Foreign Scholars Fellowship	0
2020-06-23	AWS Cloud Engineer Career Sharing	0
2020-06-15	Amazon Job Opening	0
2020-06-15	Changhua Bank's 109 Campus Information Elite Recruitment Screening Guide	0

Below the news feed, there are two video thumbnails: "WEBSITE'S BROWSING & INSTRUCTIONS MANUAL" and "SITEMAP". At the bottom of the page, there are three small images: a person working at a computer, a room interior, and a tropical landscape.

On the news page, you are facilitated with the an extra back button, which counts the views

And admin may announce a new piece of news. Note that this list is sorted by the update date & time, newest to oldest.

ID	display	updated_at	created_at	date	type	title	description	visits	edit
18	Y	2020-07-01 05:49:32	2020-06-30 11:37:44	2020-06-23	Jobs & Employment	AWS Cloud Engineer Career Sharing	Main?: AWS Cloud Engineer Career Sharing Online Live Time: July 21, 2020, 7:30 PM GMT Live registration link: https://attendee.gotowebinar.com/register/4556516231172010255 Guests on live broadcast: core business person in charge , HR person in charge , engineers in Taiwan and Dublin The briefing will discuss the Lord?: -The latest trends in the AWS cloud - AWS cloud engineer career life - AWS overseas engineers worked cloud opportunities - AWS interview process and tips - any question you want to know Attachment: Please refer to the introduction of career sharing Working cities: Taipei and Dublin	1	edit
5	Y	2020-06-30 11:57:01	2020-06-27 10:35:53	2020-06-30	Departmental	MSI invites college and postgraduate students of our department to graduates	Hello all graduating classmates I'm the project manager of MSI's Human Resources Department. The company is looking for "system computer motherboard firmware/BIOS engineer". The employer director is referred by the school professor and hopes to invite you to come and talk with us. If you wish, please call or email to inform. The company has no factories and no foreign labor. There are two restaurants. The lunch company has subsidies , free dinner, and free parking spaces. It is a safe, quiet, and convenient working environment. My phone is +886-2-2626-0255	1	edit

The news edit page look like this one below.

News Edit

Display
Yes

Type
Jobs & Employment

Title
AWS Cloud Engineer Career Sharing

News Description
Main?: AWS Cloud Engineer Career Sharing Online Live Time: 7 Yue 21 evening 7 : 30 PM GMT Live registration link: https://attendee.gotowebinar.com/register/4556516231172010255

Visit Count is set to 0 by default, unless intervened

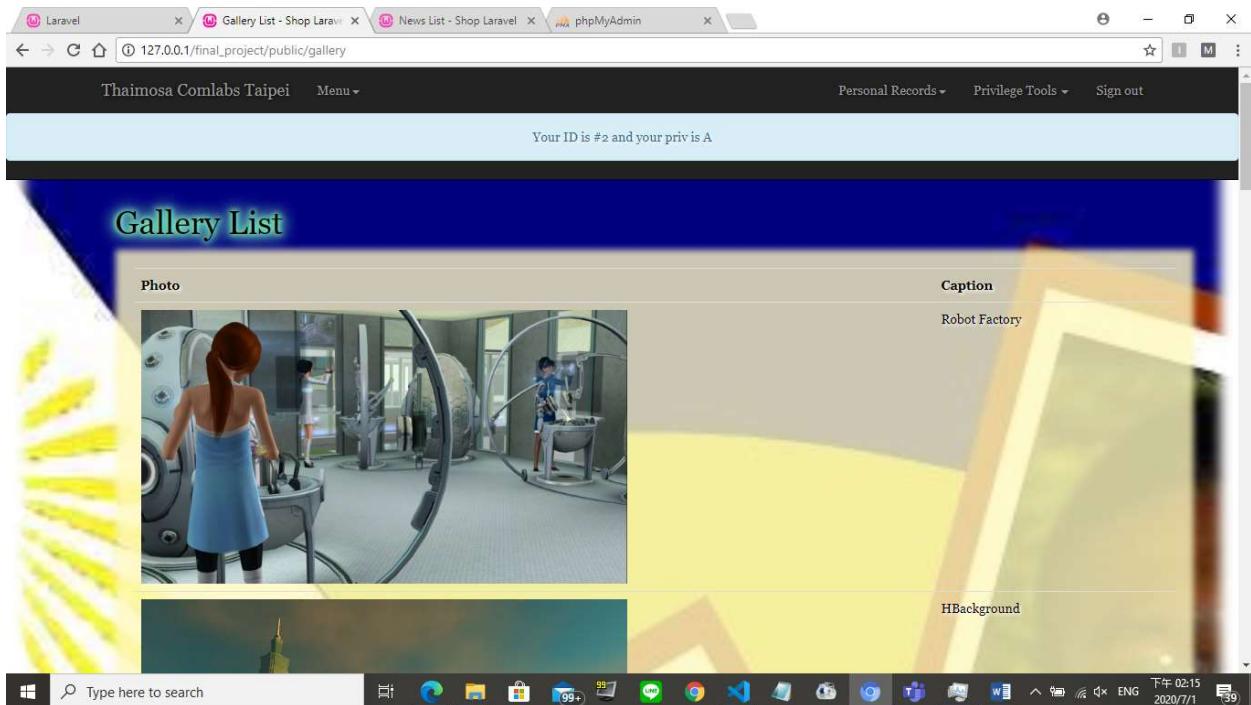
News Date
06/23/2020

Update

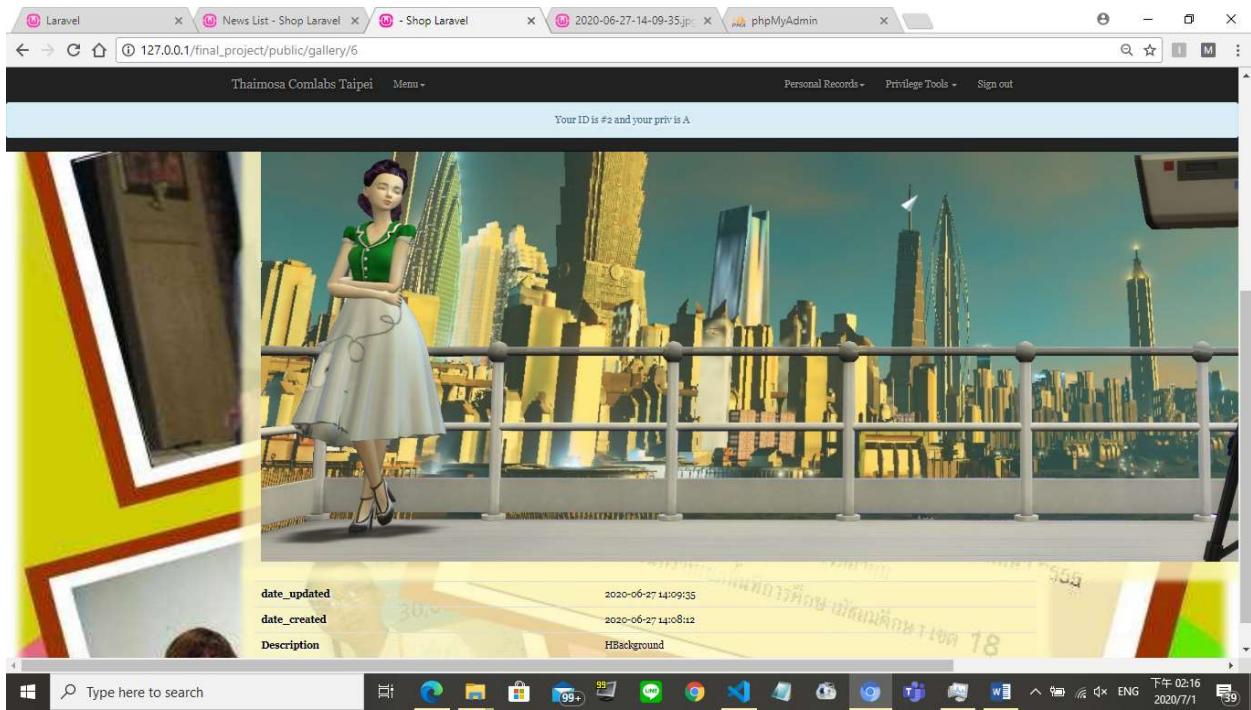
According to the validator, \$News->display has to be 'Y' (show) or 'N' (don't show), so that we need to tell the news date (\$News->newsdate). And lastly, **\$News->type**, **\$News->title**, and **\$News->ndesc** have to be not more than 150, 3000 & 6000 characters respectively. And that's the end of the news feature.

5.3 The Gallery.

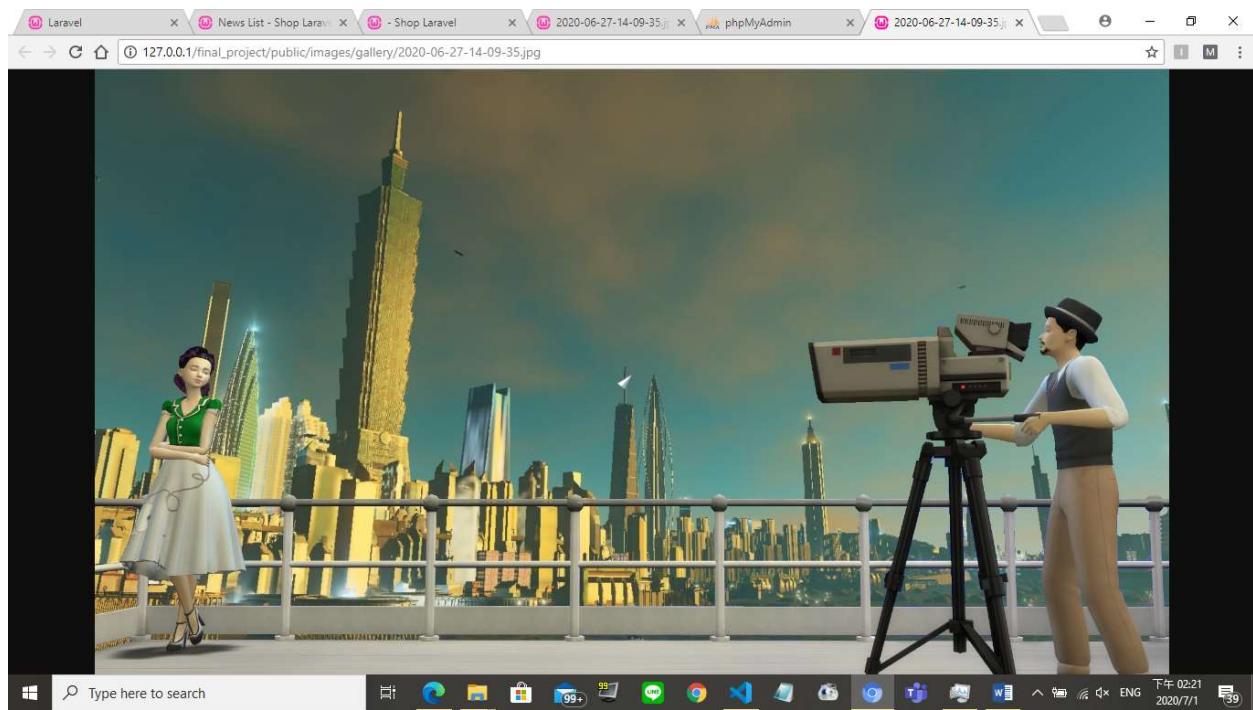
Gallery is the web page where everyone surfing this site may view real sized images, usually huge. To view the image in full size, along with reading its description, just click on the image you want to view.



Then you may scroll around the page using keyboard, the middle mouse button, or the finger swipe. Alternatively, you can drag the picture on to the browser's tab bar.



***The Merchandise feature, the template, is not in the project requirement, so we will not mention it.

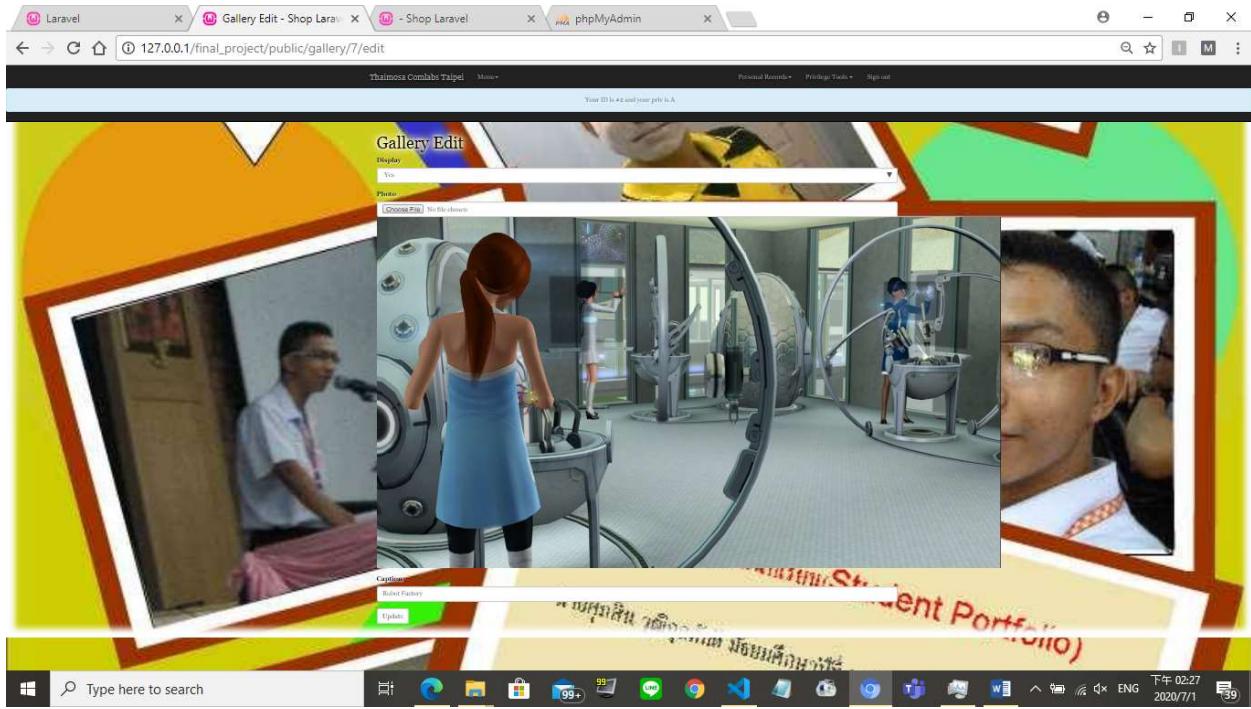


On this page of the manual, the gallery management page is down below.

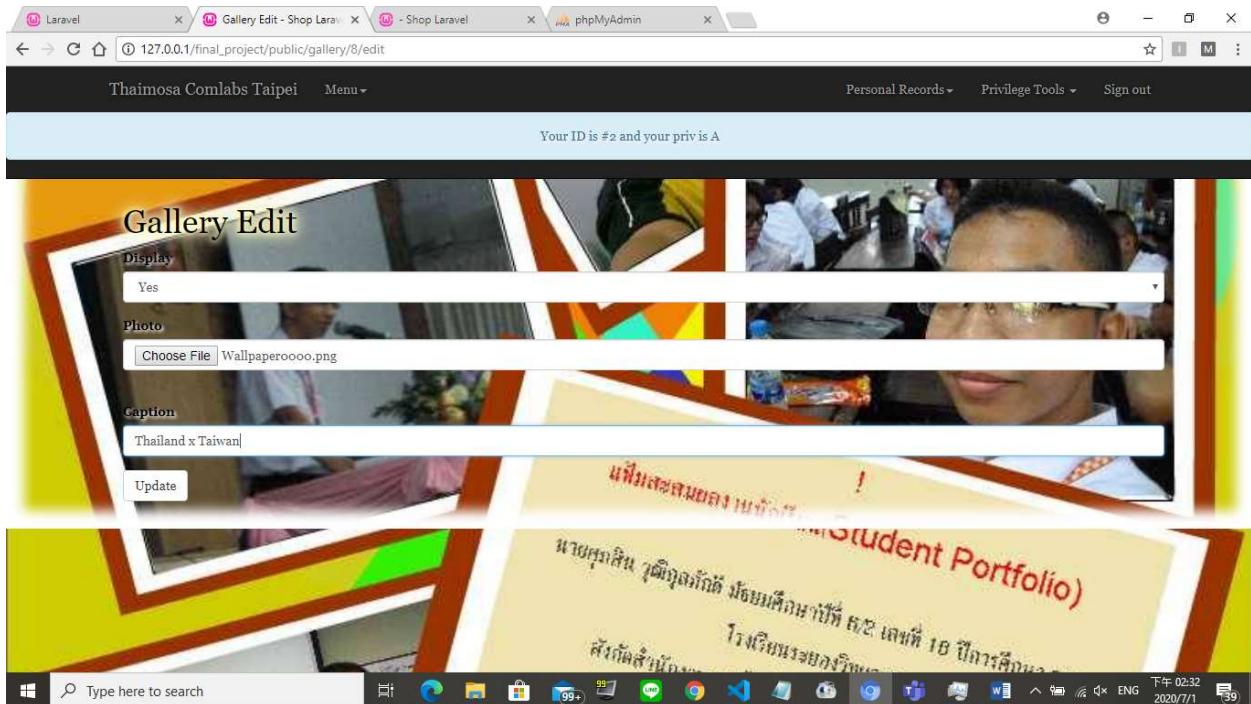
A screenshot of a web browser showing a 'Gallery List' page. The page has a header with the Thaimosa Comlabs Taipei logo, a menu, and user information. Below the header is a message: 'Your ID is #2 and your priv is A'. The main content is a table titled 'Gallery List' with the following data:

ID	edit	display	photo	caption	date updated	date created
7	edit	Y		Robot Factory	2020-06-30 12:35:26	2020-06-30 12:34:33
6	edit	Y		HBackground	2020-06-27 14:09:35	2020-06-27 14:08:12

Instead of having to delete the picture, an admin may reupload/replace the picture or edit its caption



To upload the picture is simple, just click on the link under the list title on the gallery manage page. Then you choose the picture from your machine (required). And finally, you can type the captions (optional).



The uploaded is exactly a copy of your source file, no changes were made during the process.

ID	edit	display	photo	caption	date updated	date created
8	edit	Y		Thailand x Taiwan	2020-07-01 06:32:45	2020-07-01 06:30:48
7	edit	Y		Robot Factory	2020-06-30 12:35:26	2020-06-30 12:34:33

According to the Gallery Controller file, a backend admin may set restrictions on the image size (in KB) to keep the server small.

```

EXPLORER
OPEN EDITORS
FINAL_PROJECT
    Transaction.php
    User.php
    users.php
    Exceptions
        Handler.php
    Http
        Controllers
            AwardsController.php
            Controller.php
            GalleryController.php
            HomeController.php
            MerchandiseController.php
            NCBU.php
            ProfileController.php
            PubController.php
            ResearchController.php
            TestController.php
            TransactionController.php
            UserAuthController.php
OUTLINE
TIMELINE
NPM SCRIPTS

app > Http > Controllers > GalleryController.php
public function galleryItemUpdateProcess($gallery_id) {
    $Gallery = Gallery::findOrFail($gallery_id);
    $input = request()->all();

    $rules = [
        'display' => ['required', 'in:Y,N'],
        'photo' => ['file', 'image', //, 'max: 8192000'
    ];

    $validator = Validator::make($input, $rules);
    if ($validator->fails()) {
        //var_dump($validator->messages());
        return redirect('/gallery/'. $Gallery->id . '/edit')->withErrors($validator)->withInput();
    }

    if (isset($input['photo'])) {
        $photo = $input['photo'];
        $file_extension = $photo->getClientOriginalExtension();
        $file_name = date('Y-m-d-H-i-s') . '.' . $file_extension;
        $file_relative_path = 'images/gallery/\'' . $file_name;
        $file_path = public_path($file_relative_path);
        $image = Image::make($photo) -> save($file_path);
        $input['photo'] = $file_relative_path;
    }
    $Gallery->update($input);
    echo "Gallery updated";
    header("refresh:3");
    return redirect('/gallery/manage');
}

public function galleryManageListProcess() {
    $row_per_page = 10;
}

```

5.4 Conclusions

This website represents a fictive research & development institute named “Thaimosa Comlabs - Taipei”. Which features, the info/about the introduction to the research/sublabs, the gallery, members & profiles, awards we have received, academic publications, the way to contact the admins, and keep up to date with us with the news section. Finally, It also has an authentication feature related to the profile database.

A web project by Supasir Wuthikulphakdi (#608785068) of Suppersyne-Thainosa.
In affiliation with Tamkang University, NTC, Taiwan since 2020 EST. 2009



The End

Supasin Wuthikulphakdi #608785068, Tamkang University