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History

The company was first constructed as a small private computer training center in 1986, founded by Mr. Thaung Tin (Former CEO and Chairman), along with Mrs. Tyn Tyn Aye(President & MD). At first, KMD aims to support the children with IT knowledge, but as years went by, it starts selling electronic devices and provide computer services for customers. Then, it became a private limited company from the 1990s onwards. As it became developed within years, KMD formed outlets throughout Myanmar. Nowadays, it is under control of Mr. Ronald Aung Moe Shwe (CEO).

There are many courses taught at KMD. For instance, there are application courses, professional courses, International Diploma and Degree courses, and vocational courses. In addition, KMD also accommodates the clients with oversea counseling services since it is joined to international universities.

Process

Student Signup

Students register during enrolment to attend in course. Information about each student such as address, and phone number are collected.

Enrolment

Students can enroll for courses. Staffs write enquiry forms and accept school fees.

Section Register

Each course has sections. Time of sections on weekdays and weekends are saved. Numbers of students in each section are limited.

Course Register

Various courses are defined to display the courses the students can attend.

Level Register

Levels of each course are described.

Room Register

Scheduled rooms are to be used for courses.

Subject Register

Subjects are to be listed to define which subjects are to be taught in each class.

Attendance

Attendance list is to record student presence and absence during classes.

Teacher Register

Teachers who have finished i-Office 2010 and any two courses at KMD are registered. They need to have experience in teaching for one year. Their role is to check attendance during the lessons.

Issues

Enrolment

At KMD, staffs are hired to record every data in a manual way. Data are paper-based and are recorded in books. Therefore, student data duplicates when a student attends several courses. Additionally, section's time is changed when combining with another section, but it remains the same in the manual system. Therefore, when the student enrolls for another year, information is different, resulting in errors. Additionally, there are many students who have same names at KMD. Thus, all the data can be messed up.

Attendance

Attendance is part of the problem when managing data in a manual way. For instance, teachers forgot to check the attendance papers during class. Sometimes, teachers mistakenly wrote absent beside the students' names even though they are present. So, in the end of the year, percentage of the students being present in the class is wrong.

Section Register

Section is also one of the issues when the student system is managed manually. When the staffs do not review the data of teachers' teaching periods, section times are messed up. The teachers then have multiple classes at the same time. Therefore, data duplication is a major issue.

Proposed System Scope

System to be develop

Student Signup

Student Signup is to allow students to view courses, enrolment form, levels, rooms, sections, subjects, and teacher list.

Enrolment

Enrolment is to allow students to enroll for the school, by filling in the form.

Section Register

Section Register is to allow everyone to view section's time on the website. In this way, students can view the section time easily on the website.

Course Register

When course is changed from manual way to computerized system, course description can be seen by people who want to enroll.

Level Register

By changing level to computerized system, level of each course can be defined. The duration of each level and fee amount can also be viewed.

Room Register

By changing room from manual system, room types can be classified, and details of the room such as room number and floor can also be seen.

Subject Register

By changing subject to computerized system, students can view the subject names. Therefore they can study the subjects beforehand. They can also view the level ID of the subject.

Attendance

By displaying attendance on the website, attendance records can be more accurate because the attendance are saved without human error.

Teacher Register

Teacher Register is to be changed into computerized system, because teachers' data can be searched quickly in the teacher list. The data can be more accurate since the data can be updated easily.

Estimate duration

Analysis- 2 weeks

Planning-1 weeks

Design-1 month

Implementation-5 months

Testing-3 weeks

Development-1 week

Training-2 months

Estimate Software Cost

No.	Name	Quantity	Amount	Total Amount
1	Dreamweaver CS5	3	$399	$1197
2	Sublime Text	3	Free	Free
3	Xampp	3	$5	$15
4	Microsoft Word 2016	2	$109.99	$219.98
5	Operating System	4	$155.99	$623.96
6	Microsoft Project 2013	2	$339.99	$679.98
7	Mozilla Firefox	10	Free	Free
8	Kaspersky	2	$39.95	$79.90
9	Adobe Photoshop CC	3	$239.88	$719.64

(jive, 2017), (Ltd, Sublime Text), (Quora, How can I host my website using a XAMPP server), (Microsoft, Word 2016, 2017), (Amazon, Microsoft Windows 10 Pro), (Amazon, Microsoft Project 2013, Licence Card, 1996), (support, Support Forum, 1998), (Lab, Kaspersky Antivirus, 2017), (amazon, Adobe Photoshop CC | Prepaid 12 Month Subscription (Download) , 1996)

Estimate Hardware Cost

No.	Name	Quantity	Amount	Total Amount
1	Web server	2	$149	$298.00
2	Processor	5	$44.98	$224.90
3	Hard drive	5	$33.00	$165
4	Memory 16 GB	5	$75.00	$375.00
5	Wired Networking: Ethernet LAN Port, USB Ethernet Adapter	2	$1055	$2110

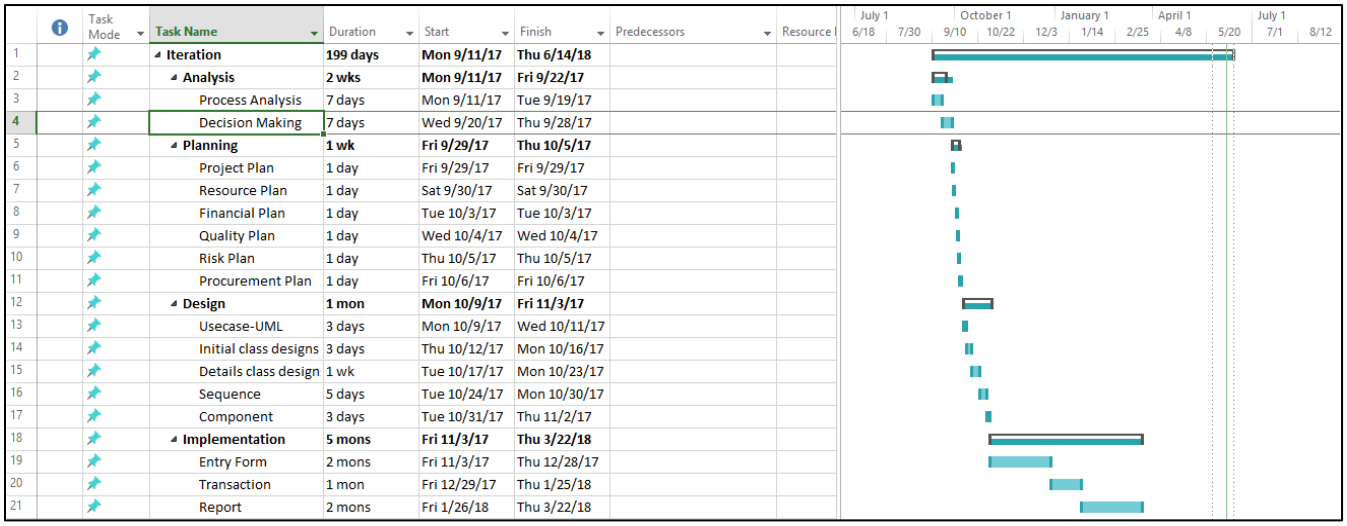
(Amazon, Intel Core i7 Processor i7-930 2.80GHz 8 MB LGA1366 CPU, Retail BX80601930 , 1996), (Amazon, Internal Hard Drives, 1996), (Woodman)), (Fixr, 2017), (cherryservers, 2001)

Estimate License Cost

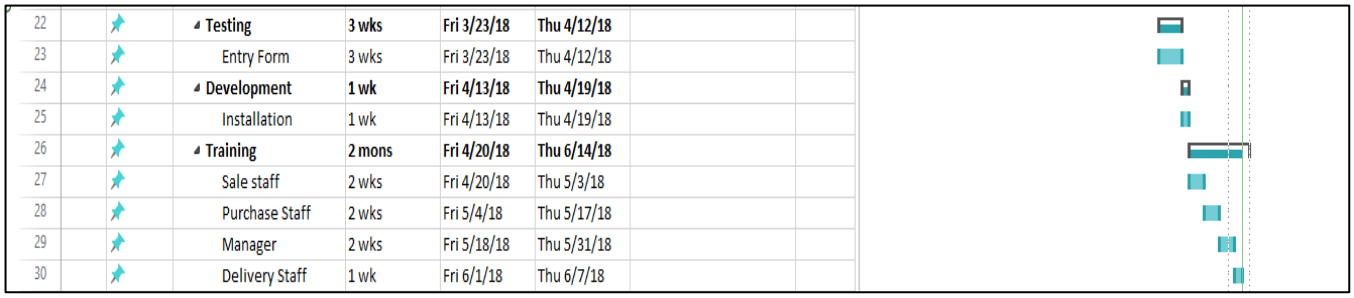
No.	Name	Quantity	Amount	Total Amount
1	Xampp	3	Free	Free
2	Sublime Text	3	$80	$240.00
3	Microsoft Word	2	$186.08	$372.16
4	Operating System(Windows 10)	4	$199	$796.00
5	Microsoft Project 2013	2	$369.23	$738.46
6	Dreamweaver CS5	3	$59.95	$179.85
7	Mozilla Firefox	10	Free	Free
8	Kaspersky antivirus	2	$55.95	$111.90
9	Adobe Photoshop CC	3	$149.39	$448.17

(spiceworks, 2006), (Ltd, Sublime Text), (Connection, 2017), (Magazine), (Microsoft, Microsoft Project 2013, Licence Card, 1 User (PC) , 1996), (Depot), (support, Are there licence costs for Firefox for an organisation?, 1998), (Lab, Renew your license., 2017), (amazon, Adobe Photoshop Creative Cloud Photography Plan: Photoshop CC Plus Lightroom 12-Month Licence | PC/Mac | Download , 1996)

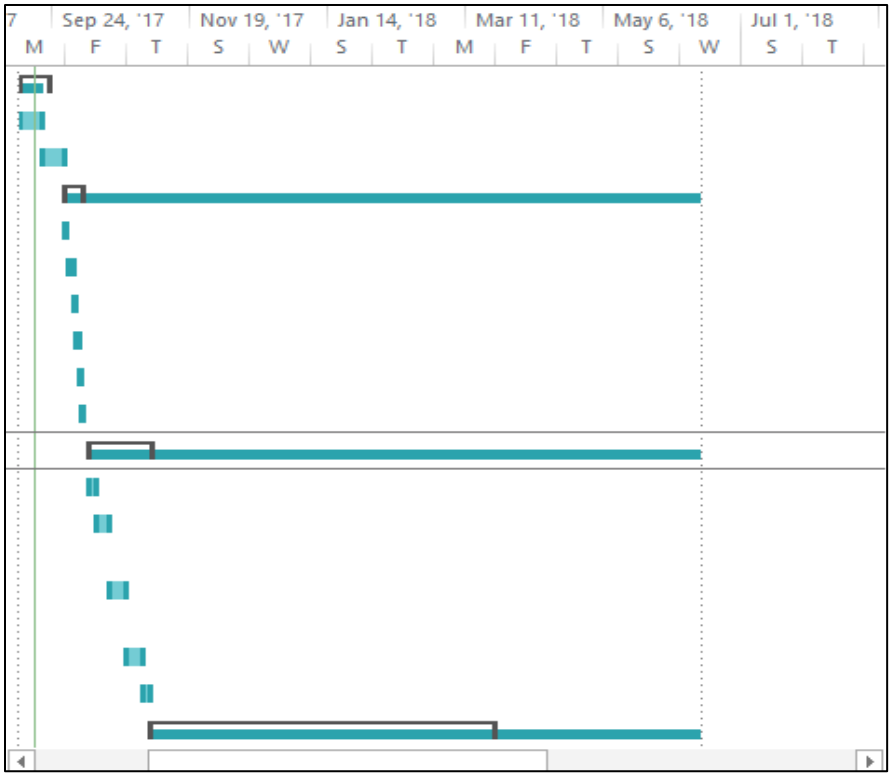
Work Breakdown Structure



	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource
1		**Iteration**	**199 days**	**Mon 9/11/17**	**Thu 6/14/18**		
2		**Analysis**	**2 wks**	**Mon 9/11/17**	**Fri 9/22/17**		
3		Process Analysis	7 days	Mon 9/11/17	Tue 9/19/17		
4		Decision Making	7 days	Wed 9/20/17	Thu 9/28/17		
5		**Planning**	**1 wk**	**Fri 9/29/17**	**Thu 10/5/17**		
6		Project Plan	1 day	Fri 9/29/17	Fri 9/29/17		
7		Resource Plan	1 day	Sat 9/30/17	Sat 9/30/17		
8		Financial Plan	1 day	Tue 10/3/17	Tue 10/3/17		
9		Quality Plan	1 day	Wed 10/4/17	Wed 10/4/17		
10		Risk Plan	1 day	Thu 10/5/17	Thu 10/5/17		
11		Procurement Plan	1 day	Fri 10/6/17	Fri 10/6/17		
12		**Design**	**1 mon**	**Mon 10/9/17**	**Fri 11/3/17**		
13		Usecase-UML	3 days	Mon 10/9/17	Wed 10/11/17		
14		Initial class designs	3 days	Thu 10/12/17	Mon 10/16/17		
15		Details class design	1 wk	Tue 10/17/17	Mon 10/23/17		
16		Sequence	5 days	Tue 10/24/17	Mon 10/30/17		
17		Component	3 days	Tue 10/31/17	Thu 11/2/17		
18		**Implementation**	**5 mons**	**Fri 11/3/17**	**Thu 3/22/18**		
19		Entry Form	2 mons	Fri 11/3/17	Thu 12/28/17		
20		Transaction	1 mon	Fri 12/29/17	Thu 1/25/18		
21		Report	2 mons	Fri 1/26/18	Thu 3/22/18		



		Testing	3 wks	Fri 3/23/18	Thu 4/12/18
22					
23		Entry Form	3 wks	Fri 3/23/18	Thu 4/12/18
24		**Development**	**1 wk**	**Fri 4/13/18**	**Thu 4/19/18**
25		Installation	1 wk	Fri 4/13/18	Thu 4/19/18
26		**Training**	**2 mons**	**Fri 4/20/18**	**Thu 6/14/18**
27		Sale staff	2 wks	Fri 4/20/18	Thu 5/3/18
28		Purchase Staff	2 wks	Fri 5/4/18	Thu 5/17/18
29		Manager	2 wks	Fri 5/18/18	Thu 5/31/18
30		Delivery Staff	1 wk	Fri 6/1/18	Thu 6/7/18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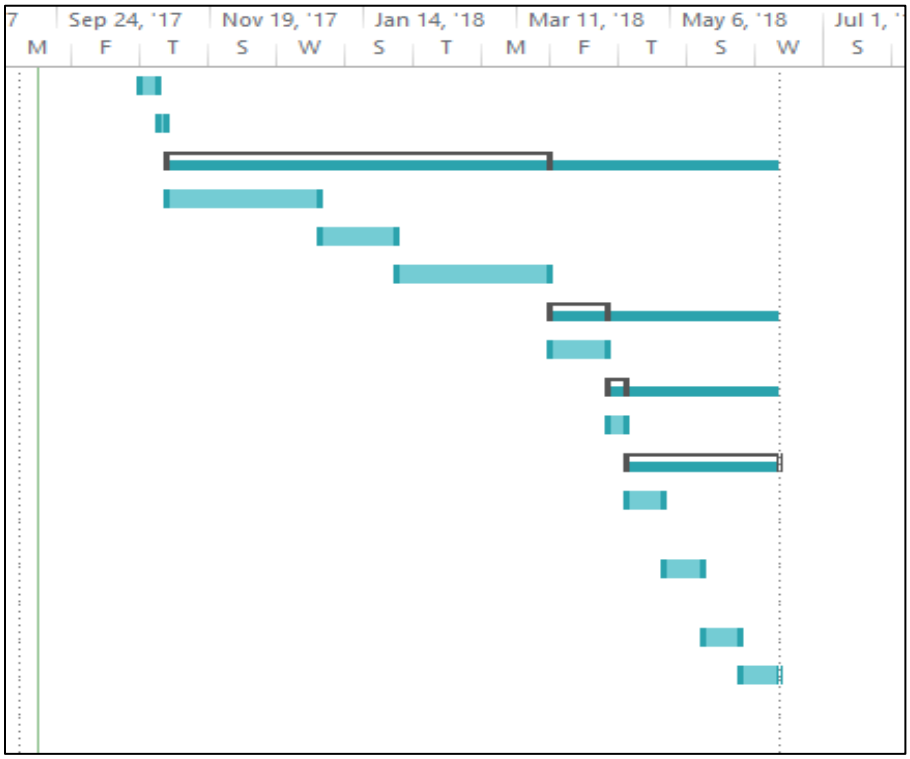
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Chapter 1

Current Business Introduction

History

Business

KMD make its clients satisfy when selling electronic products and when giving services. The loyal customers who often buy electronic devices from KMD are given promotions, such as 50% discount or free gifts. Moreover, KMD also give discounts to all students who join the various courses after they finished high schools. For NCC courses, those who joined KMD right after they finished high school are given discounts. For example, in L4DC (NCC Level-4), those who get 1 or 2 distinctions in Grade-10 can get 20% discount during enrolment. For students who get 3 distinctions get 40% discounts, and 50% discount for 4 distinctions. For students who achieved 5 or 6 distinctions receive 100% discount for enrolment.

Moreover, for students who enroll for HND first year right after they finished high school will get 30% discount, no matter how many distinctions they got. Sometimes, for the students who attend application or professional courses, they were given 20% discount. Furthermore, to make its students' lives easier, KMD provides dormitories for those who came to attend at Yangon KMD from other places. In this way, the company gains profit from customers.

Partners

KMD have partners from all around the world to make it successful. Its education partners are NCC education, University of Greenwich, SQA, LCCI International Qualification, Microsoft, Huawei, and City & Guilds. Theses partners give certificates and diplomas to KMD students, while KMD gives its partners exam fees and studenmt register fees. To make the students achieve the diplomas, KMD open courses for students.

(KMD, KMD Institute, 2017)

Competitors

KMD was very successful in the past years in Myanmar. However, as Myanmar is gradually developing every day, more companies became intrigued in investigating money in Myanmar. Therefore, more schools and universities arrived for students' education. This results in KMD having competitors. Some of its competitors are Gusto, MCC, and Strategy First. They are schools which are providing students with diplomas and certificates from UK universities.

These schools have several facilities which KMD doesn't have. For example, Gusto has a lab room, and a student lounge. In addition, MCC have Franchise Network to train all students living in Myanmar, and to expand the business. It has the biggest education service network in Myanmar. Another school, Strategy First Institute, allows its customers to write enquiry forms on its website. Those who look up the school website can also send messages. Thus, it could receive more enrolments than KMD. Additionally, Strategy First have online journals, so people who are intrigued about the Institute can download journals to know about the school's news and events.

(Gusto), (Company, 2013), (Institute, 2016)

Process

Student Signup

Students need to signup to collect information about their address, phone number, and name. During the enrolment, students have to fill in the form to let KMD receive data about them.

Enrolment

Enrolment is input in a manual system. The students have to pay school fees every 3 months at the reception. If the parents forgot to pay the fees, the class teacher or the receptionists will remind to pay the school fee within a week. Those who have finished payment will receive voucher from the reception. If students enroll at KMD just after they finished high schools, KMD offers discounts for each course.

Section Register

To record data of sections, a staff is employed for the job. The staff arranges timetables for the sections, so that teachers' teaching times does not duplicate.

Course Register

KMD have courses which can get certificates and diplomas from international universities. The courses are registered so that students can get diplomas by attending at KMD.

Level Register

There are different levels in each course. Those who want to attend level 2 course needs to show level 1 certificate as evidence. They should also remember the subjects taught in level 1.

Room Register

Information for different rooms is stored for effective school management. Rooms are registered so that sections do not duplicate. Information about room number, floor, and room type are stored. For example, some rooms are used for office, as a conference hall, and for classes.

Subject Register

Subjects are registered so that there is a particular list of subjects for each courses and levels. For example, data structure is a subject for HND course in second year. By saving subject data, it is easier to understand which subjects are available in each level.

Attendance

Attendance is collected by teachers after each lesson. The attendance is paper-based. Those who did not attend school during the lesson are written ‘A’ beside their names, meaning they were absent during the class. For students who were present within the class time were given a tick beside their name. Leave students are marked ‘L’ beside their names.

Teacher Register

Teachers are accepted at school, and depending on their qualification, the level and the subjects they have to teach students are different. When accepting teachers, their job qualification, age and address are collected. They check attendance in the class after each lessons, and they held out assignments and make practical works together with the students.

Issues

Enrolment

During enrolment, enquiry calls are missed when accepting one phone call. In addition, staff made errors since they have to write everything manually. Moreover, customers also have to wait for their turns. Therefore, receptionists have work load, and it is also not suitable for impatient customers. Data are transferred slowly and also includes errors. When a student's detail is to be searched, staff had to search in every book to know which courses the student is attending. In this situation, the data can duplicate. Therefore, it is not an appropriate way to keep data. Additionally, since the enrolment is written in papers, the staff can accidentally tear the papers, for example by spilling water, resulting in losing data.

Attendance

When writing attendance in a manual system, teachers can make error by ticking in the wrong date. This results in having wrong percentage of students' attendance at the end of the year. Sometimes, leave request is informed to the admin, but in the attendance paper, there is no leave written beside the student's name, because the teacher was not informed. Therefore, data are incorrect.

Section Register

When sections are managed in a manual system, there are several errors. For example, when a teacher has one class to teach at a specific time, and has another class in the same time. This is when teaching times duplicate because of wrong data. Thus, errors occur since data are messed up.

Proposed System Scope

Student Signup

Student Signup is an important thing to change from manual system. Without student signup online, student system website has no intention at all. Students need to log into their accounts to get into the website, so that they can view sections, and rooms.Parents can also view enrolment form.

Enrolment

KMD has been inputting every data manually, so data include errors. By changing enrolment from paper-based to computerized system, the company can get more profit, and become more recognized, because more students can enroll from the website. In addition, students' information can be kept safely without any damage. It can also reduce staff load.

Moreover, when keeping the data in a manual way, there are students at school who have same names. By recording in books, data can mess up since there are duplications with students' names. Therefore, changing enrolment to computerized system can reduce errors.

Section Register

Section Register is intended to be changed from manual to computerized system. By putting it on the website, users can view the section times and can enroll. Students can also view the section times, start date and section type easily.

Course Register

When course is changed to computerized system, course description can be seen by people who want to know about the courses via school's website. Students can also view the course name together with description.

Level Register

By changing level to computerized system, level duration can be defined. Fee amount of level can also be viewed. Therefore, parents can easily view duration of each level and fee amount, without having to contact the school.

Room Register

Data of room can be changed to computerized system. By changing it, room types can be identified, and description of the room such as room number and floor can also be seen. Therefore, new students can easily find their classrooms on the first day of school.

Subject Register

Subject register can be changed from manual system to computerized system. By changing, subject names and level ID can be viewed.

Attendance

By changing the attendance from manual system to computerized system, the data become more accurate since students' absenteeism and presence is recorded regularly.

Teacher Register

Teachers' data must be saved in the website. Teacher data that is input in teacher register is saved in the database and displayed in the teacher list. Therefore, teachers' data can be searched easier than in the manual way.

Aim & Objectives

Aim

Aim of making a student system website is to increase the number of students enrolling, and to reduce paper work when maintaining students' data. The system also aims to keep precise students' information.

If KMD is easily searched, there will be more enrolments. Thus, revenue will increase. In addition, by changing to computerized system, everyone will be able to get more information about the student system.

Objectives

To make the center get more enrolments, website is created. Within the website, section's information such as section type is also added. Information about teachers and students are also included.

Enrolment is to be changed from manual system to computerized system. This means, enrolment is to be displayed in the website. Students' information such as Student ID, total amount, deposit amount, and Section ID is to be inserted into enrolment. Attendance is also saved in the website.

SWOT ANALYSIS

Strengths

The student system has enrolment form available on the website. Many people can enroll easily from the website, without having to come to school. Therefore, the school can be noticed by more people, and more enrolments results in increased revenues.

Moreover, team members can use both software and hardware for the website, so the system have various tools, resulting in faster delivery. In addition, members can write codes and programs easily because the system runs on localhost. Changes can be made very quickly and easily.

Weakness

If some members who lack knowledge in project management are included in the team, the project can cause delay since they are unfamiliar with tools used for project. Also, if the members lacks qualification to fix and update website data, it will cause delay. Another weakness could happen when the team does not have enough employee. If the leader could not manage staff problems, the staffs will quit during the project, therefore new staffs will have to be searched, causing project delay.

Sometimes, cost issues can also be a weakness. When the supplier stops supplying money for tools, there is a halt in project progress. In addition, if the cost estimate was inaccurate, or when the project time was estimated wrong at the start of the project, there won't be sufficient amount of money for the project. Project time is limited, so the cost estimation is also one of the weaknesses. Furthermore, when the members have weakness in English writing skills, the project can also last longer, since they need someone to translate for them.

Opportunities

By making a student system website, number of students enrolling at school can increase. The school can become more popular by putting website as store front. Moreover, since manual system is changed to computerized system, new technology is used, and new services are provided to customers.

Threats

Several threats that could be faced when making a website includes having a competition with other schools' websites, or the rise in the cost of tools such as software and hardware. There are many school websites online so there could be the competition to receive more enrolment. If software or hardware tools' costs increase, budget have to be considered, to prevent supplier from refusing to pay for the tools. Moreover, there could also be environmental disaster, such as storms, and earthquakes that could happen rarely, but to be considered as threats.

Chapter 2

Methods

Structured Systems Analysis and Design Method (SSADM)

Long term of SSADM is Structured Systems Analysis & Design Method. SSADM is a well-structured method which focuses on study of Waterfall Model, which is included in systems development lifecycle. It is mostly used for government computing projects, because it can create exact information systems. Since SSADM makes part of the waterfall model, systems development is in stages. It makes the system get good quality, and also helps the project to be supported by various tools. It uses diagrams and texts for design life cycle. It is a combination of three techniques: Logical Data Modeling, Data Flow Modeling, and Entity Behaviour Modeling.

(SQA, What is SSADM?, 2007)

Dynamic Systems Development Method (DSDM)

Long term of DSDM is Dynamic Systems Development Method. It is also known as 'Driving Strategy, Delivering More'. It used to be a framework used for software development. Nowadays, it becomes a method used for product development. It has been used to show common problems faced by projects such as late delivery. DSDM uses MOSCOW prioritisation (must, should, could, and won't) to finish within the time constraint.

(wikipedia, 2018) (Limited, 2018)

Strength and weakness of SSADM

Strength	Weakness
1. It is supported by many Computer Aided System Engineering (CASE) tool providers.	It is difficult to use.
2. It has three types of views which allow users to know more about the system.	It controls every part of the creation process. Therefore, it gives very tiny space for error.
3. It examines the system precisely with standard tools so errors are reduced.	It is built on data analysis. So, if data changes after the SSADM analysis, the system recommended by data is incorrect.
4. It saves both money and time.	It is quite expensive.
5. It is used often, so people working the project can understand the process.	It takes a long time. So, there is a delay between the initial stage of the project and the final stage of the system.

(eHow, 1999), (SQA, SSADM Views, 2007)

Strength and weakness of DSDM

Strength	Weakness
1. It is independent of vendor.	It does not have many requirements for the product's quality.
2. It helps developers to communicate with business people.	It is not fit for several applications, so it is difficult to be used.
3. It could travel very far distances.	The iterative phase in DSDM is monotonous.
4. It uses time as short as possible to make the business benefit.	It requires a significant shift in any organization.
5. It is fast and cheap.	It has a high entry barrier.
6. It helps users understand more about the product.	It is costly as it requires training for users and developers.
7. It can be used in large projects.	It is not suitable for small organizations.
8. It includes workshop which makes people to work together. Therefore, a decision about the system is made quickly.	It is a new model so it is not easy to understand.

(Consortium, 2017), (UKEssays, 2003), (TatvaSoft, 2000)

Comparison between SSADM and DSDM

SSADM	DSDM
1. It is quite expensive.	It is cheap.
2. It takes a long time.	It uses time as short as possible to make the business benefit.
3. It does not include workshop.	It includes workshop which makes people to work together. Thus, decision about the system is made quickly.
4. It is a familiar process so new staff can use easily so it saves both money and time.	It is difficult to use. So, it requires training for users and developers.
5. User does not need to pay license cost.	User needs to pay license cost.

(IQ, 2017), (agilekrc, 2017)

Recommendation

After comparing SSADM and DSDM, DSDM has more advantages than SSADM. SSADM is expensive but DSDM is cheap. Users using DSDM can reduce cost by using cheaper method. Moreover, DSDM includes workshop. Therefore, people can work together and decision for the system is made quickly, which makes DSDM more efficient than SSADM. Furthermore, since the project is a short term project, DSDM is more suitable for the project. Additionally, DSDM uses time as short as possible to make business benefit, so the business can get more profit by DSDM. Overall, SSADM has fewer advantages than DSDM. Therefore, DSDM is to be used for the system.

Languages

Hypertext Preprocessor (PHP)

PHP is usually called Personal Home Page. These days, it is named PHP Hypertext Preprocessor. It is scripting language and is open- source. PHP has been widely-used to design for web development. Sometimes it is also known as programmng language.

It can be input into HTML as a scripting language, where it includes embedded code. The code is enclosed in start and end processing instructions. It is processed by a PHP interpreter in the web server. When the code is executed on the server, HTML is sent to the client. The client receives the results, but cannot see the embedded code.

(PHP.net, 2001), (Wikipedia, PHP), (tutorialspoint, PHP, 2017)

ASP.Net

ASP.Net is an open-source server-side framework designed for web development, which is used to produce dynamic web pages. It was created by Microsoft to let programmers build dynamic web sites, web applications and web services. It is built on the Common Language Runtime (CLR), which allows the programmers to write ASP.NET code. It also allows users to create web applications easily using programming language such as C# or VB.NET.

(ASP.NET, 2017), (Wikipedia, ASP.NET), (tutorialspoint, ASP.NET Tutorial, 2017)

Strength and Weakness of PHP

Strength	Weakness
1. It is extremely easy for a new user.	The programs cannot be executed on the client, because it is a server-side language. Therefore, the server becomes slower when many PHP applications are executed.
2. It has many advanced features for a professional programmer.	It has ample language features.
3. It can be used with large number of relational database management systems.	It can only parse code within its delimiters. Anything outside the delimiters goes to the output.
4. It is inexpensive.	Its low price suggests that it is not worth buying.
5. Since it is executed on the server, it works even if the client does not have the appropriate software installed.	It does not have name spacing, which results in class naming collisions.
6. It can maintain source code's security.	It is not suitable for large applications.
7. It is very adaptable.	Since it is open source, all people can see the source code. Therefore, weakness can be seen easily.
8. It is fast, and reliable.	It is slow.

(CreativeWebMall), (PixelsTech, 2017), (TechStrikers, 2017)

Strength and Weakness of Asp.Net

Strength	Weakness
1. It has object-oriented features.	It is expensive.
2. Its library is task-based. So, developers can save time on common development tasks.	It has strange page life cycles, which makes the users get confused with where to put the code.
3. It is easy to learn for beginners.	It needs to be paid.
4. It has huge amount of resources.	It has little control over the HTML.
5. It has great performance.	It can only run on Microsoft Windows.
6. It can easily work with windows applications.	The real version of Asp.Net is weak.
7. It can be easily added with new functionality.	It is slow.

(Orient, ASP.NET vs PHP, 2005), (Overflow, Advantages and Disadvantages of ASP.NET Webforms Vs ASP.NET MVC, some points [duplicate], 2017), (Quora, What are the advantages and disadvantages of using ASP.NET?)

Comparison between PHP and Asp.Net

PHP	Asp.Net
1. It is inexpensive.	It is expensive.
2. It does not have library system.	It has library system.
3. It is simple.	It has confusing page life cycles.
4. It uses less web server resources than PHP.	It uses more web server resources than PHP.
5. It takes fewer lines of code.	It takes more lines of code to achieve complex features than PHP.
6. It is interpreted at the server. No additional steps are required to see the changes.	It needs to be compiled each time the code is changed.
7. The development process is less time-consuming.	The development process is more time-consuming.
8. It is editor independent. PHP developers have access to wide range of editors.	Programmers depend on Microsoft Visual Studio editor for development.
9. It can run on any platform.	It can only run on Windows platform.

(Orient, ASP.NET vs PHP, 2005)

Recommendation

When comparing PHP and Asp.Net, PHP has more advantages than Asp.Net. PHP is not expensive, so amount of money needed to make the system can be reduced. Moreover, it is simple so it can reduce time training staff. In addition, by using PHP, various numbers of editors can be used since it is editor independent. Code does not need to be written a lot, so processes can be made fast. Therefore, PHP is the best choice to use for the student system.

(Quora, Which is better, PHP or ASP.NET and why?), (Overflow, ASP.net vs PHP (What to choose), 2017)

Databases

MySQL

MySQL is pronounced "My Sequel" or My-S-Q-L. It is an open source relational database management system (RDBMS) which uses Structured Query Language (SQL) and is written in applications such as C and C++. It also works with PHP, and also runs on platforms such as Linux, and Windows. Developers can use it by getting the General Public License (GPL), but organizations must get a commercial license from Oracle. It is commonly used for the web databases, because it can store anything.

(SiteGround, 2004), (TechTarget, MySQL , 2003), (Wikipedia, MySQL), (Heng, 2010)

Oracle

Oracle database or Oracle is produced by Oracle Corporation. It is made up of processes that are running in the operating system. These processes manage how data is stored and how it is accessed. Oracle supports programming in Java, and programs written in SQL. It is available for licensing in four editions which provide different levels of functionality. The four editions of the Oracle database are Enterprise Edition, Standard Edition, Express Edition, and Oracle Lite.

(TechTarget, Oracle, 2003), (Wikipedia, Oracle Database), (techopedia, 2017), (Javatpoint, 2011)

Strength and Weakness of MySQL

Strength	Weakness
1. It can work with many operating systems.	It lacks several SQL features.
2. It is fast and reliable.	It has difficulty in working with source code.
3. It is easy to use.	It does not thoroughly test on some platforms.
4. Everyone has access to MySQL's source code, so problems are solved faster.	MySQL with a commercial closed-source product need to purchase a license.
5. The source code of MySQL is available for free online.	It is not for large sized data.

(Data, 1999), (javasamples, 2017), (Makble, 2017)

Strength and Weakness of Oracle

Strength	Weakness
1. It uses table structure that links elements from one table to another. Therefore, users don't have to store the same data in many tables.	It needs qualified database administrators to run the system. Moreover, administrator's salary is to be paid two or three times
2. Speed of its database is very fast.	It is difficult to learn and operate. It requires specialized skills to install and maintain.
3. It is highly reliable.	It is limited to huge companies.
4. It supports on-line backup and recovery.	Its server security is weak.
5. It runs on many devices.	It is very expensive.
6. It has an ability to control multiple databases using two-phase protocol.	It has weak authentication. It does not have the ability to know who is connected to the database.

(BluecoreResearch, 2009), (Quora, What are the disadvantages of Oracle databases?), (UKESSAYS, 2003)

Comparison between MySQL and Oracle

MySQL	Oracle
1. It provides a GPL software license, so anyone can use it.	It is limited to huge companies.
2. It has more operating system compatibility.	It has less operating system compatibility.
3. It uses fewer indexes than Oracle.	It uses more indexes than MySQL.
4. It supports Java.	It does not support Java.
5. It provides on-site and phone support.	It only provides Forums support.
6. It only works with static systems.	It works with both dynamic and static systems.
7. It is free.	It costs $180.
8. It has fewer features than Oracle.	It has more features than MySQL.
9. It is used for smaller projects.	It is used more for larger enterprises.
10. It is use more often than Oracle.	It is used lesser than Oracle.
11. It is not as popular with larger enterprises as Oracle.	It is more popular with larger enterprises than MySQL.
12. It is an open source relational database management system.	It is an object-relational database management system.
13. It does not offer inline views; role based security and advanced replication.	It offers inline views; role based security, and advanced replication.

(Engines, 2017), (Differencebetween, 2017), (ITXDesign, 2017)

Recommendation

When comparing MySQL and Oracle, MySQL has more benefits than Oracle. MySQL is free whereas Oracle needs to be paid. Moreover, anyone can use MySQL while Oracle limits companies from using it. In addition, MySQL has more operating system compatibility than Oracle. Therefore, in conclusion MySQL is a better choice than Oracle.

Evaluation

In Chapter 2, method, language, and database are to be chosen to figure out which would work the best for the project. When examining language, Structured Systems Analysis & Design Method (SSADM) and Dynamic Systems Development Method (DSDM) are observed. Description of SSADM is written, along with DSDM. Then, strength and weakness of SSADM are identified. Next, strength and weakness of DSDM is displayed in tables. After analyzing the strength and weakness of SSADM and DSDM, they are compared to find out which has more advantages. After that, the result shows that DSDM has more benefits than SSADM. Therefore, DSDM is chosen as the method to use for the student information system.

Afterwards, PHP language and ASP.Net is chosen among the languages. Description of PHP is written, along with ASP.Net. Then, PHP's strength and weakness are input into the table. Next, ASP.Net strength and weakness is also written in another table. Later, both languages are compared to analyze which would be the best language to use for the system. As a result, PHP have more advantages than ASP.Net.

After choosing the best method and language for the student information system, database is searched. Within various databases, MySQL and Oracle is chosen. Just like the previous way, MySQL's details are written, followed by Oracle's details. Then, MySQL's strength and weakness are input into the table. Additionally, Oracle's strength and weakness is also displayed in another table. Then, MySQL and Oracle are compared to identify the better database that will be used for the system. The result shows that MySQL is a better choice over Oracle.

Chapter 3

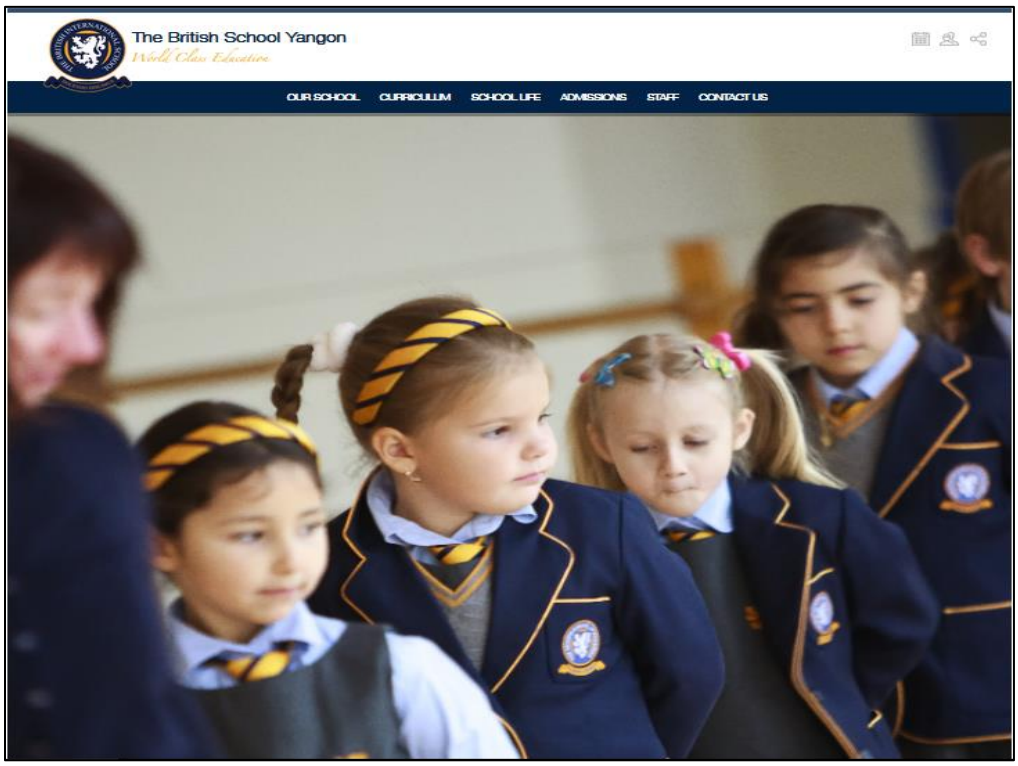
Website name: Columbia University

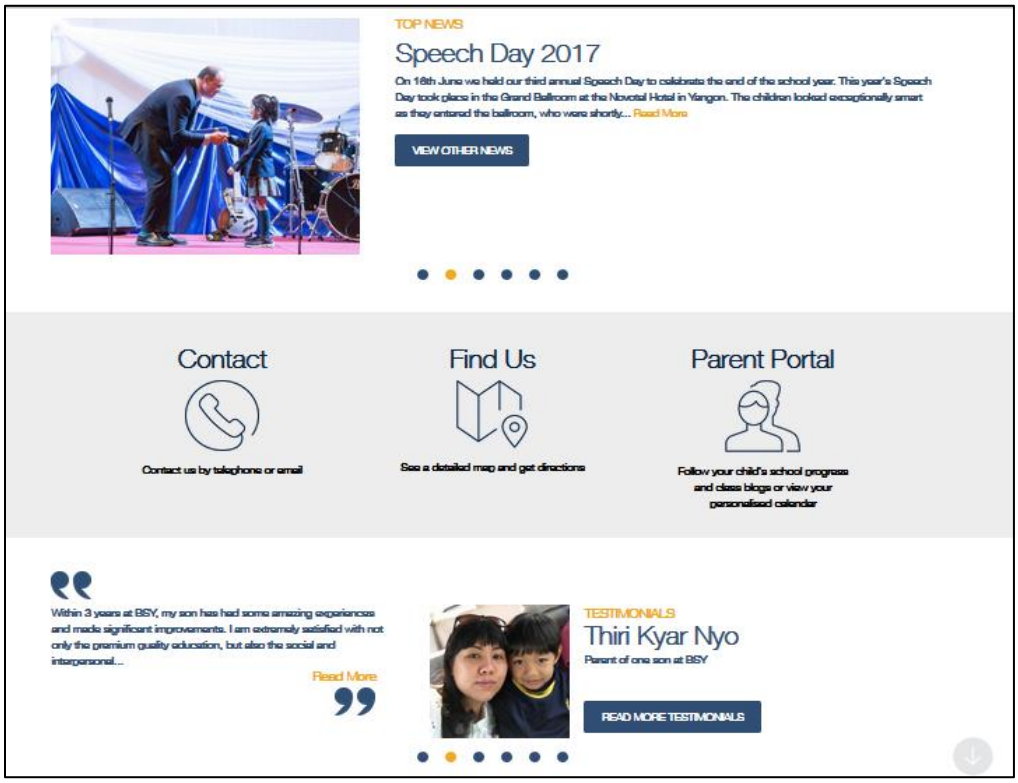
Link: http://www.columbia.edu/

Homepage screenshot

Website name: The British School Yangon

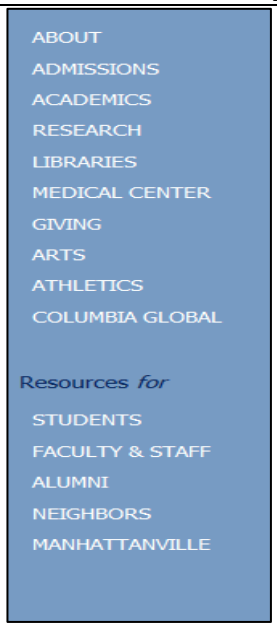
Link: https://britishschoolyangon.org/Homepage screenshot

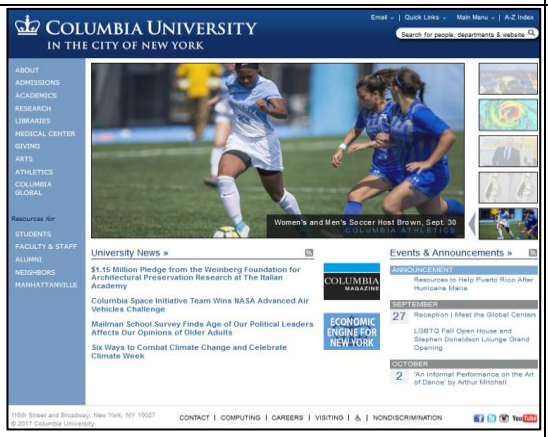
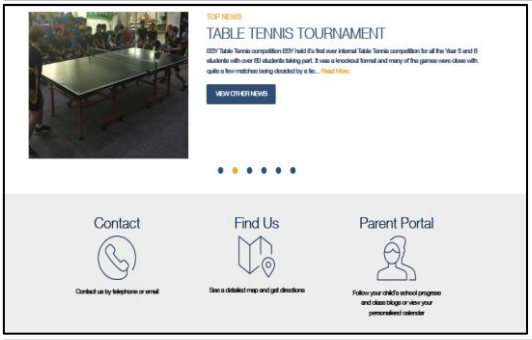
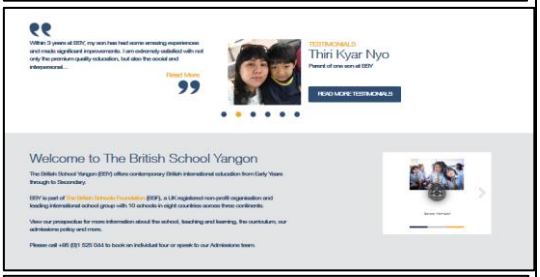


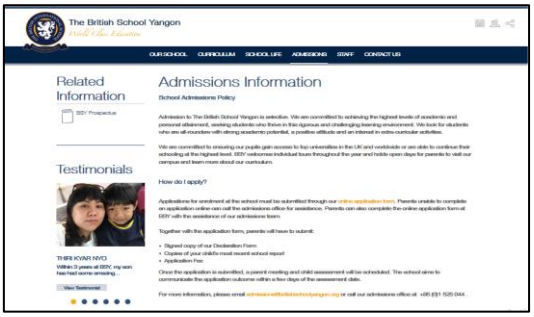
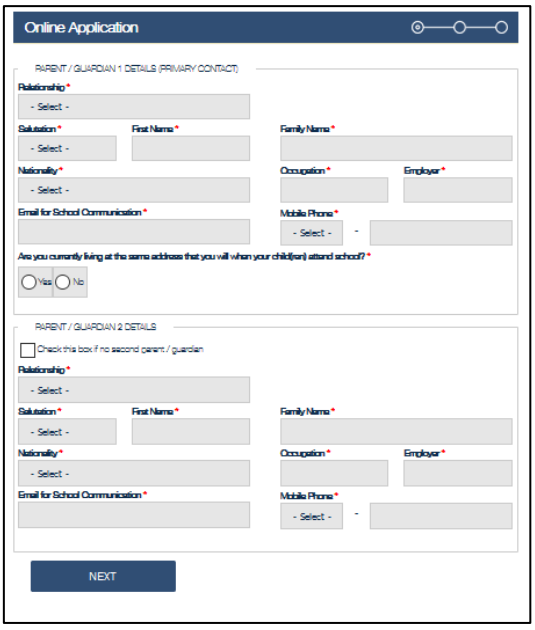



Welcome to The British School Yangon
The British School Yangon (BSY) offers contemporary British international education from Early Years through to Secondary.
BSY is part of The British Schools Foundation (BSF), a UK registered non-profit organisation and leading international school group with 10 schools in eight countries across three continents.
View our prospectus for more information about the school, teaching and learning, the curriculum, our admissions policy and more.
Please call +95 (0)1 525 044 to book an individual tour or speak to our Admissions team.
The British School Yangon
The British School Yangon (BSY) is an environment of dedicated teachers, with a focus on a growth mindset.
2018
44
Mr. Adam Johnson
Headteacher
VISIT SITE
SAO PAULO
MANILA
KUALA LUMPUR
BRASILIA
NANJING
PAMPLONA
TASHKENT
MARBELLA
YANGON
MOSCOW

Comparison

Criteria	Columbia University	The British School Yangon
Menu Display	   The menu box is displayed vertically in the web page. After searching other information, the menu buttons changes into horizontal tables. In some pages, menu is not available.	 Menu display is below the logo, written horizontally. The menu bar does not change even when other page is searched.

Search Box	 Search box is available at the top right corner of every page.	It does not have a search box.
Home Page	 The home page is clear, with blue and white background. It contains menu at the right of the page, and moving pictures in the center. News and events of university is also displayed which makes it easier for the reader.	    The homepage looks very neat, with students' event pictures. However, the page is lengthy. The user has to scroll all way down to look for information.

Enrolment	 When clicked on 'Admission', it went to the Admissions column in the menu bar.	   When click on 'How to apply' in the Admission, the page went to Admissions Information. By clicking on the email the school gives, students can apply the online application form.

(University, 2017), (Foundation)

Strength and Weakness of Columbia University

Strength	Weakness
It has search box at the home page to allow the users to search for the information they want easily.	The menu bar is also moving around whenever various pages of the university's website are viewed. Sometimes, it is not shown in certain pages.
The big moving images at the home page make the viewer intrigue in the university.	The design is old-fashioned.
It has email displayed at the home page so that users can message the university.	Texts are small and plain.
The web pages are neat.	The web page design needs to be attractive with multicolor.
Users can get access to university's news.	The website does not include fax number.
Links are mostly texts. So, just by clicking the texts, the users can get directly to the web pages.	Navigation is terrible. Pages do not have permanent designs.
Quick Links are provided in the web page. So, user can search for information quickly.	Links are mostly included in long texts.

Strength and Weakness of the British School Yangon

Strength	Weakness
Huge clear images of students are shown, which makes the user impress with the school.	It does not have a search box.
It has quotes from parents. Therefore, users can know comments made by the testimonials, which is very effective in enrolment.	The webpage is lengthy. To know more about the website, the user has to scroll down.
School's activities are shown, so user can get interested in school's events.	The texts are a bit small.
It has parent portal, to make parent involve with school's daily activities.	
Those who are interested in enrolling at school can fill in the enquiry form easily just by searching in Contact Us at the menu.	
The menu bar remains in the exact position no matter how many pages are viewed.	
Webpage is attractive because it is colorful.	

Recommendation

When comparing both of the websites, 'The British School Yangon' looks better than 'Columbia University'. By looking at the strength and weakness of the websites, student system website can be made wonderfully. Weakness can be changed to strength, for example by figuring out that 'British School Yangon' does not have a search box, the website that is to be made in this project can include search box. Also, all the strengths will be used in the student /y website.

Evaluation

In this chapter, two similar websites are compared. First, screen shots of the homepages are captured, along with the web link and name. Then the criteria of both websites are written. Afterwards, strength and weakness of each website are input in tables. Next, recommendation is included to describe how the strength is used, and how weaknesses of other websites are to be changed into strength in the student system.

Chapter 4

Functional Requirements

Student Signup

Student Signup is required because new users need to signup to view the website. Students can view sections and courses on the website by logging into the website.

Enrolment

Enrolment form is required for those who want to enroll at school on the website.

Section Register

Section register is to be included so that students can view the sections easily online.

Course Register

Course is required to get information of Course ID, Course Name, and Description.

Level Register

Level is required to have data of level ID, Level Name, Duration, and Fee.

Room Register

Room needs to be included so that room data such as room type can be managed online.

Subject Register

Subjects are to be required so that students can easily see which subjects are going to be taught in each level.

Attendance

Attendance is needed to save students' absenteeism and presence.

Teacher Register

Teachers' data is required to allow the staff to find the data of teachers easier.

Non-Functional Requirements

Global

Security

To prevent hackers from stealing users' information, security ways will be used. For example, users can only log in the website with their username and password. In this way, website can be protected from hackers. Furthermore, users have to create strong passwords so that hackers have difficulty. Moreover, code generator can be input to make the website safer.

Performance

When parents want to get contact with teachers, teacher list is available on the website if they login the website with the student account. They can then search the email address of each teacher and can talk with them about school lessons if possible.

Another performance is that when the users have completed certain processes, such as filling in the enrolment form, message will be displayed to show that they have completed with the work. Additionally, if messages written by users are not responded, school's phone number is available to contact.

Safety

The website will not allow auto-filled for forms, because hackers can get users' information. Moreover, for students' safety, the data that are saved are stored in a safe place to avoid having data stolen.

Individual

Student Signup

Volume- Students who are willing to sign up more than once with the same email address will be shown a message such as “Student Name already exist.” A student cannot register again with different email address, because data can duplicate.

Response time- replies back as a message in 100ms.

Frequency- once for one account

Enrolment

Volume- Can fill in the form only once for one student with the same email address.

Response time- replies back within 48 hours

Frequency- can fill in for only once with one student ID.

Section Register

Volume- Section Register cannot be changed every day, because teachers’ teaching time will change again and again. Thus, same errors will result as in manual system. Therefore, only when new section is added, it can be modified and updated.

Response time- message appears in 100ms

Frequency- only once for a month

Course Register

Volume- Course names cannot be changed, but can add more courses or delete.

Response time- message back in 100ms

Frequency- can change whenever

Level Register

Volume- Level cannot be changed. It can be added only once.

Response time- message appears in 100ms.

Frequency- none

Room Register

Volume-Room information can be changed once a month when section's data is changed.

Response time- respond with message in 100ms

Frequency- can be changed at least once

Subject Register

Volume- Subjects can be updated every time.

Response time- message back in 100ms

Frequency- Subjects can be input anytime in a day.

Attendance

Volume- There is no limit.

Response time- message appears within 100ms

Frequency- Attendance list cannot be fixed once input.

Teacher Register

Volume- Each teacher data can be input for only once. Usernames which are used again to register more than once in the website will be shown as message “TeacherName already exist in database.”

Response time- replies via message in 100ms

Frequency- Data for each teacher can only be input once.

(Elh)

MoSCoW Prioritization

Functional	**M**	**S**	**C**	**W**
Student Signup	✓			
Enrolment	✓			
Section Register	✓			
Course Register		✓		
Level Register	✓			
Room Register	✓			
Subject Register			✓	
Attendance		✓		
Teacher Register			✓	

Reasons for functions

Must

Student Signup- Without students signing up, student system will not mean anything at all. Students need account to login to the website.

Enrolment- The main aim of creating the website is to get more enrolments. Therefore, enrolment form must be input in the website.

Section Register-Section Register should be input in the website to record data of sections created every month. New students will be able to see the section's times, so they can enroll for specific section.

Level Register- Level Register should be included in the website so that duration of levels can be seen by users searching in the website.

Room Register- Room register should be input so that room management is available via website. Students can also find rooms easily on the website.

Should

Course Register- Without course register, course data cannot be searched easily.

Attendance- Attendance which needs to be changed to computerized system needs to be included in the website, so that issues can be solved. Without adding attendance, presence and absence will still be wrong.

Could

Subject Register- By displaying subject list on the website, students can view the subject name so they can search for the subjects before they are taught at school.

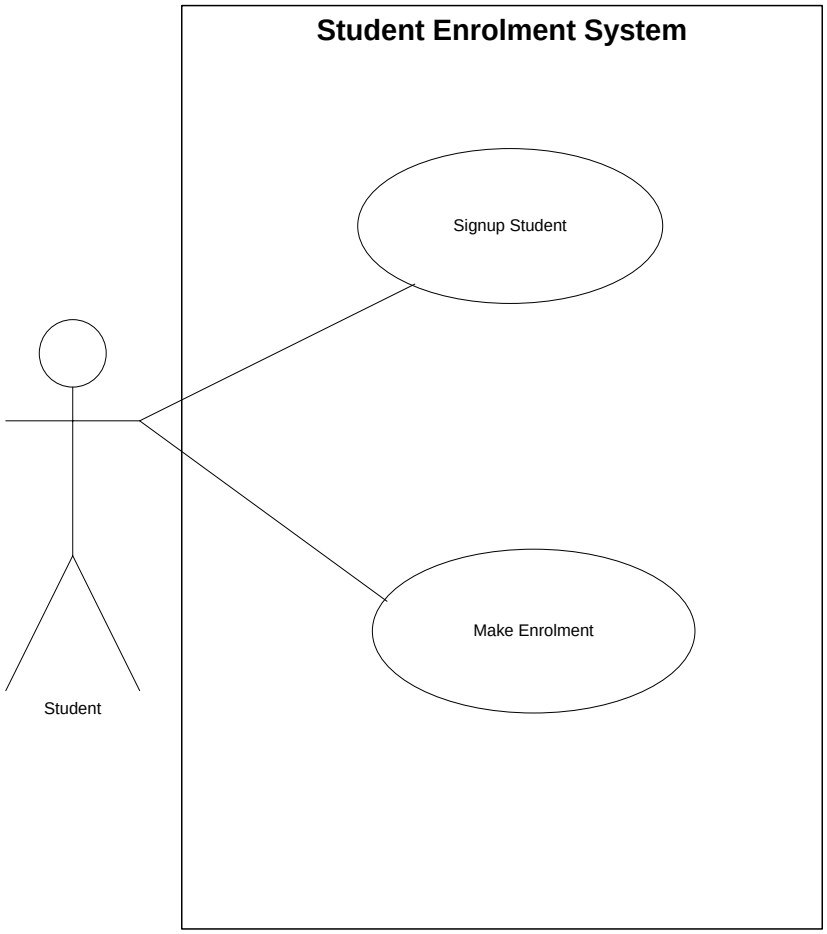
Teacher Register- Teachers' data could be registered so that teacher list is available for parents who want to contact the teachers.

Conclusion

In this chapter, functional and non-functional are written. Functional is to make list of things required for website and which are mandatory. Non-Functional includes Global and Individual. In Global, security of website and safety is mentioned. Then, performance of the website is also described. Then, in the individual, each things required to be in the website are listed. Volume, frequency, and response time of each process are shown. Then, a table named ‘MOSCOW’ is created to identify which things are important in the website. Ticks are placed under names such as ‘must, could, should, and would’. Then, reason for placing tick under ‘must, could, should, and would’ is written. Finally, requirement catalog table is created. In the table, acceptance criteria and descriptions for functional requirements are also displayed.

Chapter 5

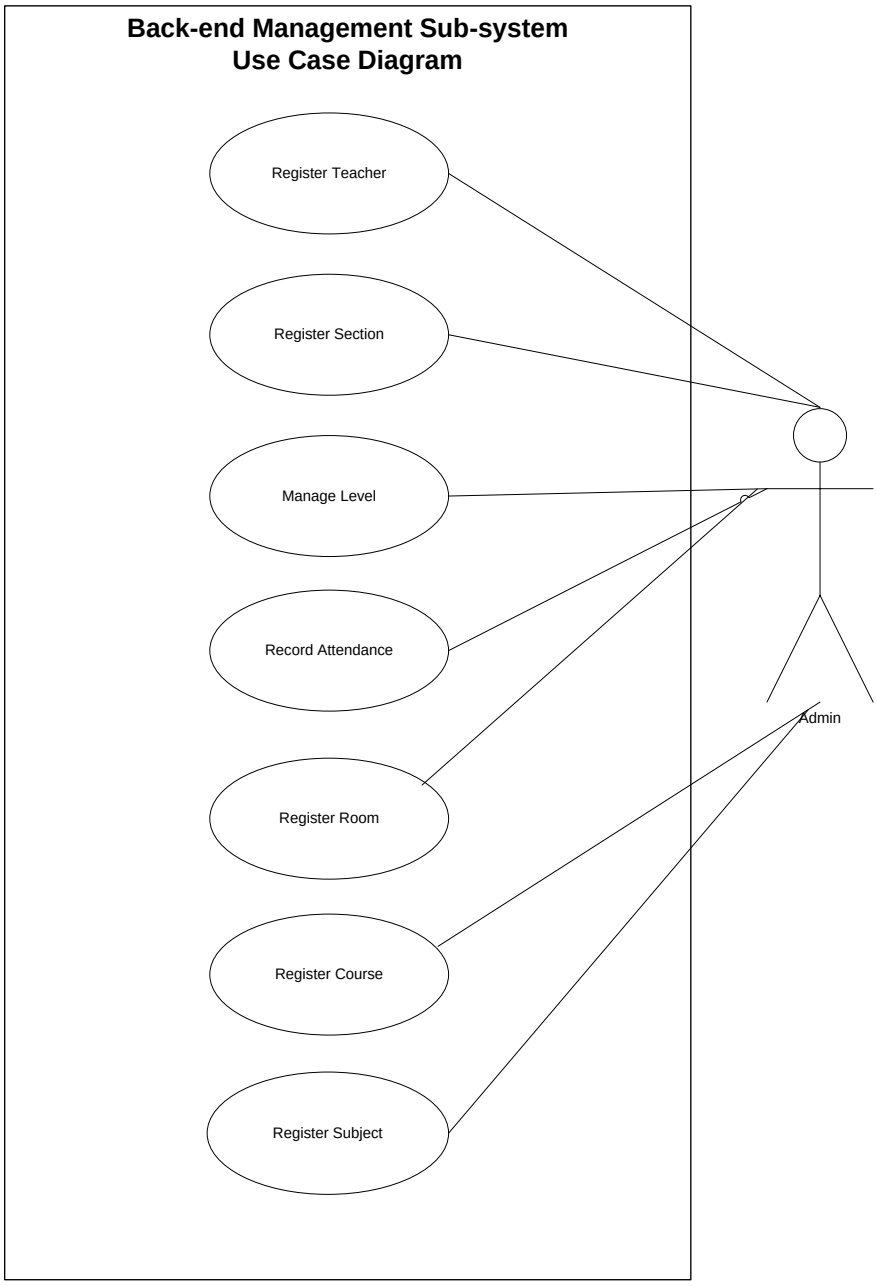
Use Case Diagram: Student



Explanation

Student enrolment system includes student signup, and making enrolment, and paying for school fees. In the first stage, student need to sign up to view the website. Next, they can fill in enrolment form.

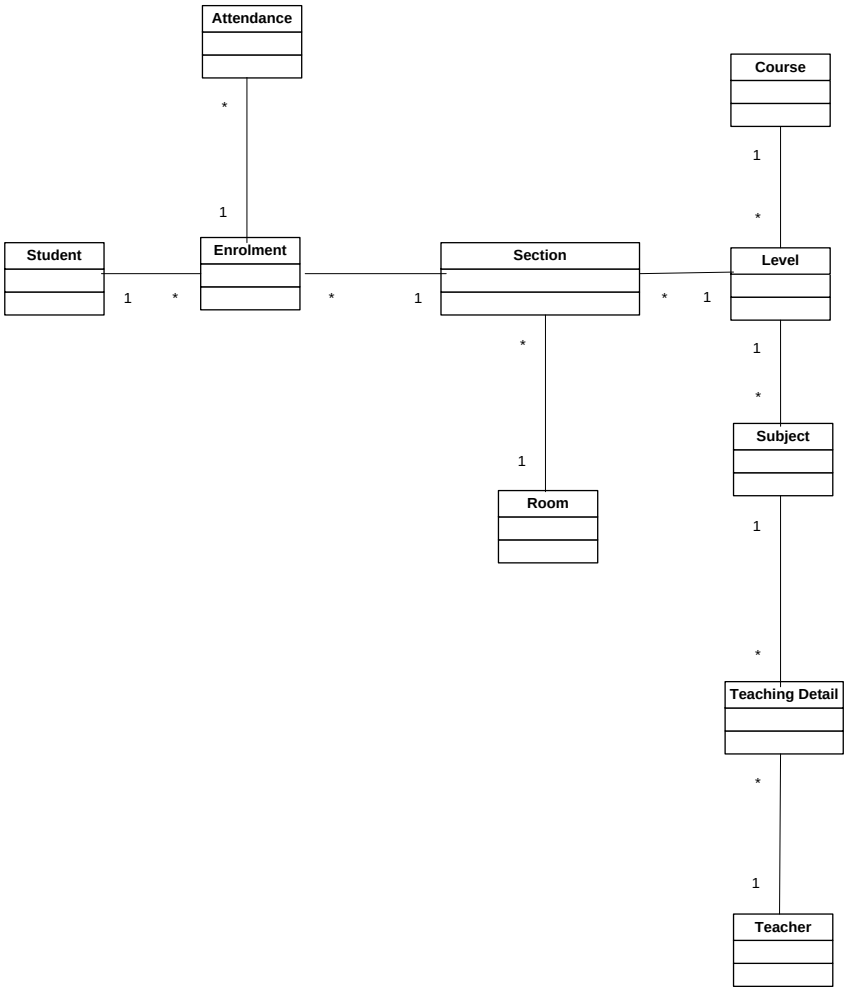
Use Case Diagram: Admin



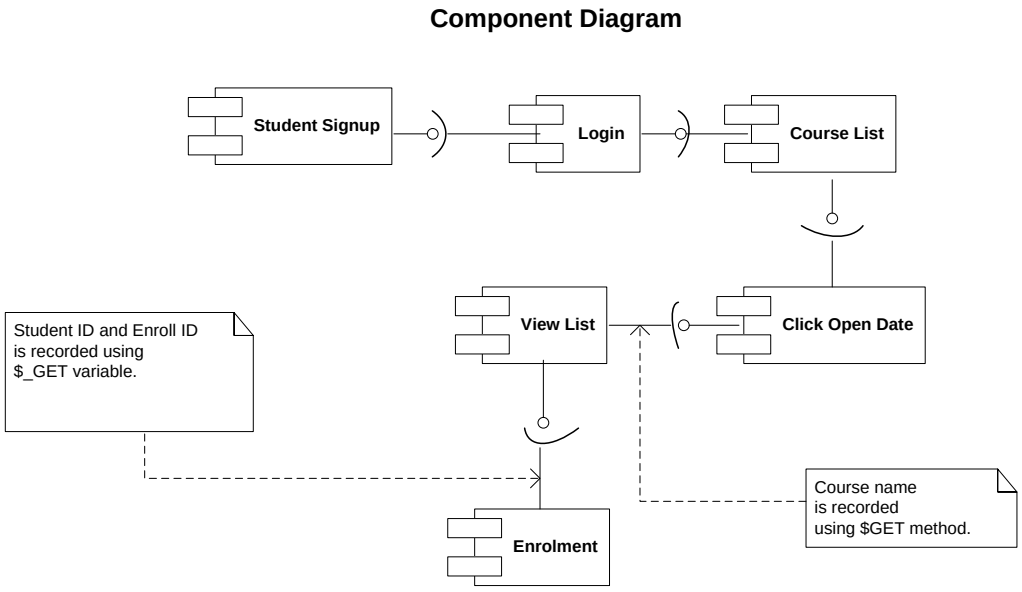
Explanation

Admin register teachers' data to record in the database. Section, Level, Room, Course, and Subject data are also registered and saved. Attendance is also recorded. Student's presence and absence is saved.

Initial Class Diagram



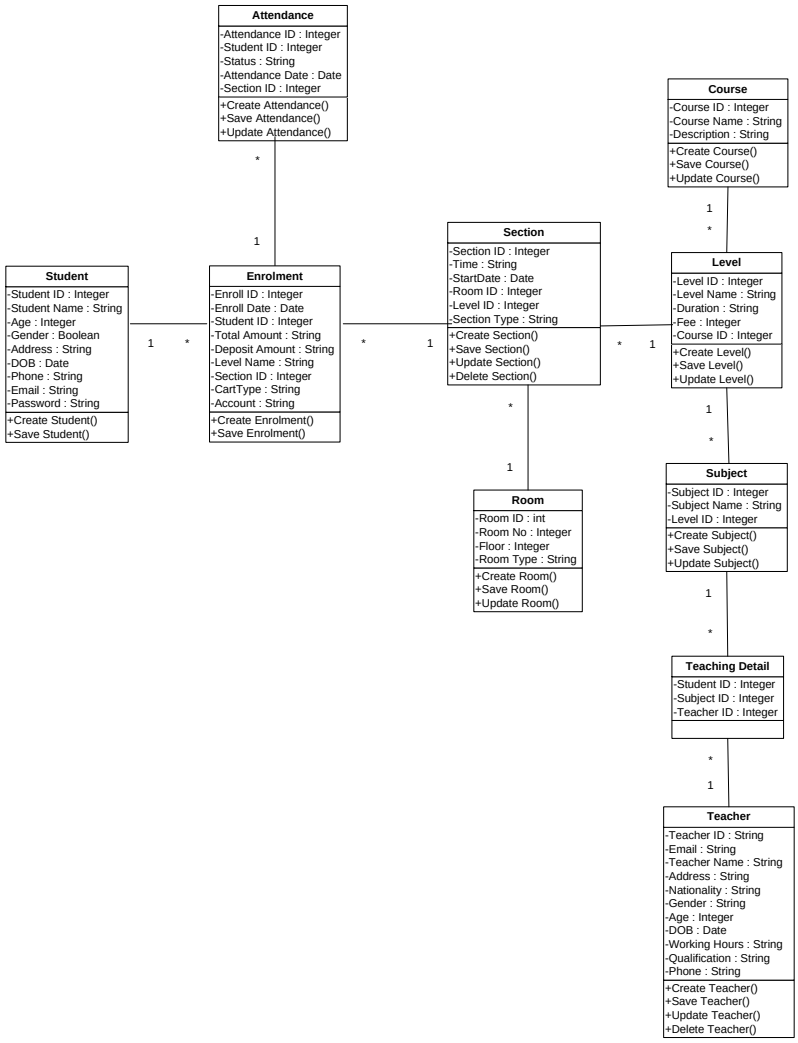
System Architecture-Component Diagram for Enrolment



Explanation

Component diagram is made to show the functions that are done to allow user to enroll in the website. Connectors are between each components, such as smart connector, required interface, and provided interface. Provided interface between the components mean that the services are provided to the components. Smart connectors and the notes shows the background functions which allows the data to be carried in each components.

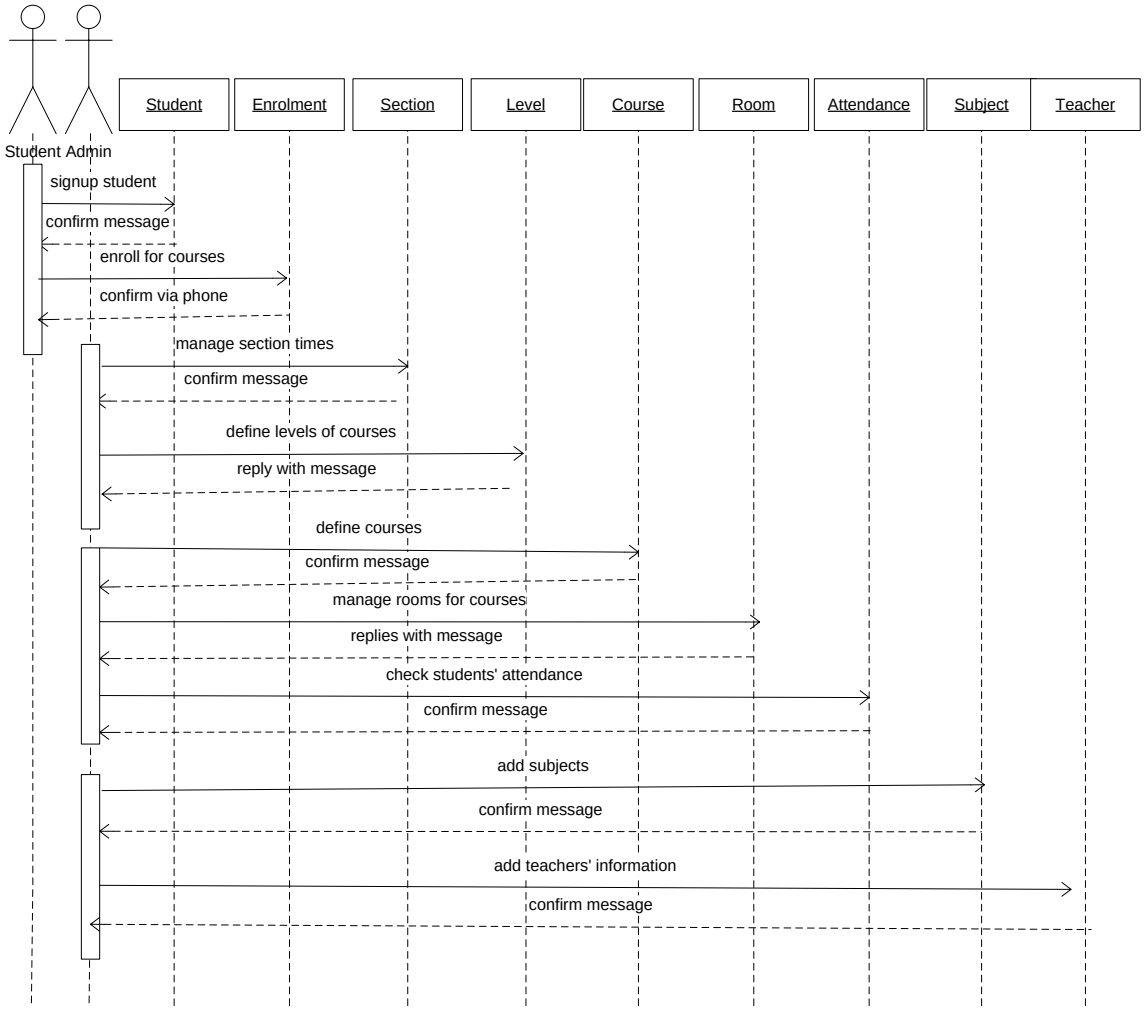
Structural Model (Detailed Class Diagram)



Explanation

In the detail class diagram, the classes are linked together in relationships called “One-to-many” relationships. When there is a many-many relationship between two classes, dummy class is formed. Dummy class have foreign key from the classes.

Behavioral Model (Sequence Diagram)



Explanation

Sequence diagram shows sequence of messages. Student interactions and admin interactions are shown in the sequence diagram. They get replied by messages to confirm. For enrolment, the staff contact the student's phone to confirm.

Chapter 6

Risk Management

Most of the projects which are successful these days have many critical success factors. One of the main reasons is because the project goals are specific. The members made proper project plans so the goals are understandable and in correct order. Moreover, good project leadership also affects the project's success. When a leader can get communication with other members continuously, project's plan can be finished gradually. These members must also be collaborative with other members, so that arguments and fights do not happen. In addition, if the project's risk management is ignored, it won't become successful.

Major Sources of Risk

Environmental

Project can also be affected by unpredictable events. Accidents such as car crashing into the project room or natural disasters such as floods, fire, or storms can also happen. In addition, since the country has electricity shortage, the project could delay. Next, the customer's requirement also affects the work. When the customer does not like the current design of the project or when the customer makes changes again and again for the project, the team would not be able to finish the work since they have to change a lot. Afterwards, when the office has to move to a new place, the members will have to spent time on relocation and it will have a tiny impact on the project. Sometimes, when there is a delay in booking the meeting room, project manager will not know whether the team members have finished the task for that week, so it also affects the project.

Process/Management

When the company or the person who provides with tools for the project made a delay on transporting equipment, the project can also delay. Another thing is, when the goals are not clear at the start of the project plan, the project will lack understanding even when it is finished.

Inadequate control

When the member left the project because of certain situations, the project would delay since there is no expertise to continue the task. Bringing in a new worker at a later stage in the project can significantly slow down the project.

Problem and Errors detected late

When the cost of hardware and software are estimated wrong at the start of the project, project schedule has to be changed and delay would occur.

Inadequate technical approaches

When the required software and hardware does not work properly, the risk is very high since the members cannot continue to work for the project.

Personal

Wrong Grade

If the project manager give wrong authority to team members, there can be delay in project because the members cannot control the project correctly.

Wrong Training

If the team does not have a person who can control the specific task even though there are many people in the team, the project can also delay.

Wrong Expertise

If the members that are already assigned do not hbyave the required skills, the project can have risk.

Too many/ few people

Too many people working on the project means there are many software requirements and many processes occurring. Therefore, members spent more time changing the requirements instead of focusing on the real task, causing project delay. If there are few people, tasks cannot be done quickly because not all the required skills are covered.

Technical

Requirement Changes

If the equipment that is of low quality, changes have to be made.

Failure to meet requirement

Sometimes, the software industry asked for the high price which no one could afford. Therefore, the team members have to discuss with the software industry causing project delay.

Problem Error Detected

When the hard disk gets broken, the data for project can be loss. Moreover, when there is a problem with software, developers cannot easily find the root cause, which cause project delay.

Risk Matrix

Low 0% 30% Medium 31% 60% High 61% 100%

Title	Risk Status	Potential impact	Risk owner	Actions	Prevention
Environmental	Medium	Medium	Environment	None	None
Process	High	High	Members	Break down the process into steps.	Make the goals clear since the start. Make plans and schedules.
Inadequate control	High	High	Project Manager	Leaders must have full authority over members. Figure out what needs to be done, and what are important.	Identify decision makers, and leaders.
Problems and errors detected late	Medium	Medium	Members	Note the problems. Make meetings, and solve the issues together to fix the errors quickly.	Write the descriptions of problems in weekly status reports.
Inadequate technical approaches	Medium	Medium	Project Manager	Assign the member who can handle all	Write the descriptions in weekly

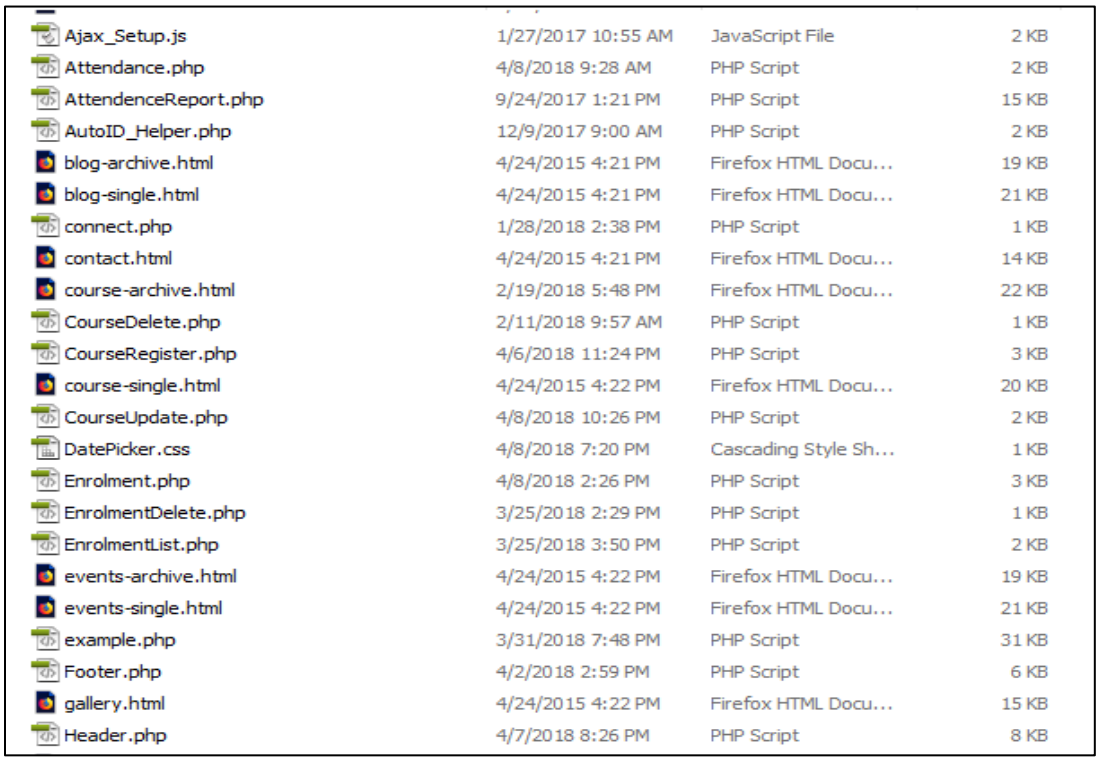
				the technical issues.	report to inform about the problems.
Wrong Grade	Medium	Medium	Project Manager	Give the authorities to suitable member.	Give authorities to correct members.
Wrong Training	High	High	Project Manager	View each of the members' skills and give correct works.	Give new resources to mentors only. The new members are to be trained with familiar tools.
Wrong Expertise	High	High	Project Manager	Find suitable expertise to work with the tools.	Make sure the expertise is correct since the start of the project.
Too many/few people	High	High	Project Manager	If there is too many people, arrange them in the area where many works are to be accomplished.	Limit the number of members.

				If there is few people, gather more workers to finish work quickly.	
Requirement changes	Medium	High	Project Manager	Discuss with the team members.	Write the changes in the weekly report so that they can be changed quickly.
Failure to meet requirement	Medium	High	Supplier	Negotiate with the supplier.	Make sure there is effective engagement with

Configuration Management – Directory Structure

Program

The program is saved in my computer, C Drive, in Xampp folder. The system is saved in htdocs in Xampp.



Ajax_Setup.js	1/27/2017 10:55 AM	JavaScript File	2 KB
Attendance.php	4/8/2018 9:28 AM	PHP Script	2 KB
AttendenceReport.php	9/24/2017 1:21 PM	PHP Script	15 KB
AutoID_Helper.php	12/9/2017 9:00 AM	PHP Script	2 KB
blog-archive.html	4/24/2015 4:21 PM	Firefox HTML Docu...	19 KB
blog-single.html	4/24/2015 4:21 PM	Firefox HTML Docu...	21 KB
connect.php	1/28/2018 2:38 PM	PHP Script	1 KB
contact.html	4/24/2015 4:21 PM	Firefox HTML Docu...	14 KB
course-archive.html	2/19/2018 5:48 PM	Firefox HTML Docu...	22 KB
CourseDelete.php	2/11/2018 9:57 AM	PHP Script	1 KB
CourseRegister.php	4/6/2018 11:24 PM	PHP Script	3 KB
course-single.html	4/24/2015 4:22 PM	Firefox HTML Docu...	20 KB
CourseUpdate.php	4/8/2018 10:26 PM	PHP Script	2 KB
DatePicker.css	4/8/2018 7:20 PM	Cascading Style Sh...	1 KB
Enrolment.php	4/8/2018 2:26 PM	PHP Script	3 KB
EnrolmentDelete.php	3/25/2018 2:29 PM	PHP Script	1 KB
EnrolmentList.php	3/25/2018 3:50 PM	PHP Script	2 KB
events-archive.html	4/24/2015 4:22 PM	Firefox HTML Docu...	19 KB
events-single.html	4/24/2015 4:22 PM	Firefox HTML Docu...	21 KB
example.php	3/31/2018 7:48 PM	PHP Script	31 KB
Footer.php	4/2/2018 2:59 PM	PHP Script	6 KB
gallery.html	4/24/2015 4:22 PM	Firefox HTML Docu...	15 KB
Header.php	4/7/2018 8:26 PM	PHP Script	8 KB

It is saved as php, css, and html files. They can be opened with Sublime Text, and Adobe Dreamweaver software.

Chapter 7

Test Schedule

Module 1: Login Form

Test Script	Description	Date	Tester
1.1	Login button is tested.	18 March 2018	THUN SU NYI NYI
1.2	Register button is tested.	18 March 2018	THUN SU NYI NYI

Module 2: Logout Form

Test Script	Description	Date	Tester
2.1	Logout button is tested.	18 March 2018	THUN SU NYI NYI

Module 3: Student Signup Form

Test Script	Description	Date	Tester
3.1	Login button is available in student signup form to allow the students who have already registered to log in.	18 March 2018	THUN SU NYI NYI
3.2	Information is filled in the form.	18 March 2018	THUN SU NYI NYI
3.3	Same student data is input.	18 March 2018	THUN SU NYI NYI

Module 4: Student List

Test Script	Description	Date	Tester
4.1	Data is filled in the Signup form.	18 March 2018	THUN SU NYI NYI

Module 5: Student Update Form

Test Script	Description	Date	Tester
5.1	Student Name is changed.	18 March 2018	THUN SU NYI NYI
5.2	Age is written in string.	24 March 2018	THUN SU NYI NYI
5.3	Gender is changed to female.	24 March 2018	THUN SU NYI NYI
5.4	Address is changed.	24 March 2018	THUN SU NYI NYI
5.5	DOB is changed.	24 March 2018	THUN SU NYI NYI
5.6	Phone data is changed.	24 March 2018	THUN SU NYI NYI
5.7	Email data is changed.	24 March 2018	THUN SU NYI NYI
5.8	Password is changed.	24 March 2018	THUN SU NYI NYI

Module 6: Student Delete Form

Test Script	Description	Date	Tester
6.1	Student data is deleted.	25 March 2018	THUN SU NYI NYI

Module 7: Teacher Register Form

Test Script	Description	Date	Tester
7.1	Teacher data is filled in the register form.	25 March 2018	THUN SU NYI NYI

Module 8: Teacher Update Form

Test Script	Description	Date	Tester
8.1	Teacher's name is changed.	25 March 2018	THUN SU NYI NYI
8.2	Address is changed and tested.	25 March 2018	THUN SU NYI NYI
8.3	Nationality is changed.	25 March 2018	THUN SU NYI NYI
8.4	Gender is changed	25 March 2018	THUN SU NYI NYI
8.5	Age is changed to string.	25 March 2018	THUN SU NYI NYI
8.6	DOB is changed by clicking calendar.	25 March 2018	THUN SU NYI NYI
8.7	Working Hour is changed.	25 March 2018	THUN SU NYI NYI
8.8	Teacher's qualification is changed.	25 March 2018	THUN SU NYI NYI
8.9	Phone number is changed.	25 March 2018	THUN SU NYI NYI

Module 9: Teacher Delete Form

Test Script	Description	Date	Tester
9.1	Teacher data is deleted.	31 March 2018	THUN SU NYI NYI

Module 10: Subject Register Form

Test Script	Description	Date	Tester
10.1	Data is filled beside Subject Name, and Level ID.	31 March 2018	THUN SU NYI NYI

Module 11: Subject Update Form

Test Script	Description	Date	Tester
11.1	Subject Name is changed.	31 March 2018	THUN SU NYI NYI
11.2	Level ID is changed.	31 March 2018	THUN SU NYI NYI

Module 12: Subject List

Test Script	Description	Date	Tester
12.1	Text boxes in the form is filled.	1 April 2018	THUN SU NYI NYI

Module 13: Subject Delete Form

Test Script	Description	Date	Tester
13.1	Subject is to be deleted.	1 April 2018	THUN SU NYI NYI

Module 14: Section Register Form

Test Script	Description	Date	Tester
14.1	Fill in all the text boxes in the form.	7 April 2018	THUN SU NYI NYI
14.2	Same Room ID is chosen in the form.	7 April 2018	THUN SU NYI NYI

Module 15: Section Update Form

Test Script	Description	Date	Tester
15.1	Time is changed.	7 April 2018	THUN SU NYI NYI
15.2	Start Date is changed.	7 April 2018	THUN SU NYI NYI
15.3	Level ID is changed.	7 April 2018	THUN SU NYI NYI
15.4	Section Type is changed.	7 April 2018	THUN SU NYI NYI

Module 16: Section List

Test Script	Description	Date	Tester
16.1	Section information is filled in Section Register form.	7 April 2018	THUN SU NYI NYI

Module 17: Section Delete Form

Test Script	Description	Date	Tester
17.1	Section is deleted from Section List.	7 April 2018	THUN SU NYI NYI

Module 18: Room Register Form

Test Script	Description	Date	Tester
18.1	Room information is filled in Room Register form.	8 April 2018	THUN SU NYI NYI

Module 19: Room Update Form

Test Script	Description	Date	Tester
19.1	String is written into Room No text box.	8 April 2018	THUN SU NYI NYI
19.2	Floor is changed.	8 April 2018	THUN SU NYI NYI
19.3	Room Type is changed.	8 April 2018	THUN SU NYI NYI

Module 20: Room List

Test Script	Description	Date	Tester
20.1	Room data is filled.	8 April 2018	THUN SU NYI NYI

Module 21: Room Delete Form

Test Script	Description	Date	Tester
21.1	Room data is deleted.	8 April 2018	THUN SU NYI NYI

Module 26: Level Register Form

Test Script	Description	Date	Tester
26.1	Information is inserted in level form.	14 April 2018	THUN SU NYI NYI

Module 27: Level Update Form

Test Script	Description	Date	Tester
27.1	Level name is changed.	15 April 2018	THUN SU NYI NYI
27.2	Duration is changed.	15 April 2018	THUN SU NYI NYI
27.3	Fee data is changed.	15 April 2018	THUN SU NYI NYI

Module 28: Level Delete Form

Test Script	Description	Date	Tester
28.1	Level data is deleted.	15 April 2018	THUN SU NYI NYI

Module 29: Level List

Test Script	Description	Date	Tester
29.1	Level data is filled in the form.	15 April 2018	THUN SU NYI NYI

Module 30: Course Register Form

Test Script	Description	Date	Tester
30.1	Course information is inserted.	15 April 2018	THUN SU NYI NYI

Module 31: Course Update Form

Test Script	Description	Date	Tester
31.1	Course Name is changed.	15 April 2018	THUN SU NYI NYI
31.2	Description is changed.	15 April 2018	THUN SU NYI NYI

Module 32: Course Delete Form

Test Script	Description	Date	Tester
32.1	Course Name is deleted.	15 April 2018	THUN SU NYI NYI

Module 33: Course List

Test Script	Description	Date	Tester
33.1	All the text box in course register is filled.	15 April 2018	THUN SU NYI NYI

Module 34: Attendance

Test Script	Description	Date	Tester
34.1	Class is chosen, and tick is placed under the present, and absent.	15 April 2018	THUN SU NYI NYI

Module 35: View List

Test Script	Description	Date	Tester
35.1	View List is available by clicking Open Date in the course table.	15 April 2018	THUN SU NYI NYI

Module 36: Enrolment List

Test Script	Description	Date	Tester
36.1	Enrolment list is viewed.	15 April 2018	THUN SU NYI NYI

Module 37: Enrolment Delete Form

Test Script	Description	Date	Tester
37.1	Enrolment information is deleted.	15 April 2018	THUN SU NYI NYI

Student Login

Test Script

Unit Test 1		Test Case: Data entry for users to login	Designed by: THUN SU NYI NYI	
Data Source: Login Form		Objective: To make sure students and admin can log in to the website.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
1.1	Login button is tested.	Write Email and Password and click Login button.	Welcome message will appear. If student login, they'll get into course list. If admin login, they'll get to section register form.	See Fig 1.1.1, 1.1.2, 1.1.3,1.1.4, 1.1.5, and 1.1.6

Student Login

Before Testing

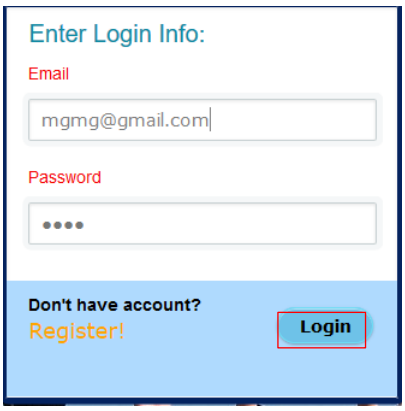


Fig (1.1.1)

After Testing

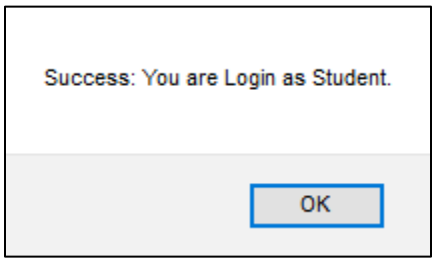


Fig (1.1.2)

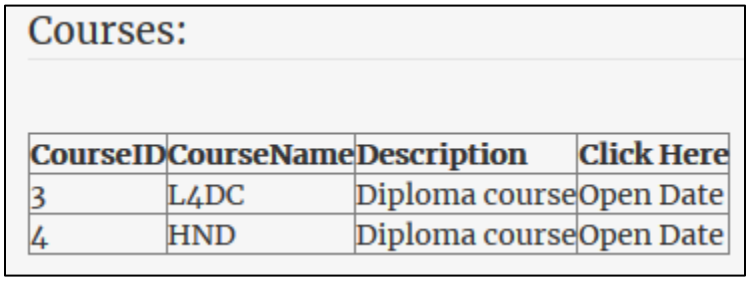


Fig (1.1.3)

Admin Login

Before Testing

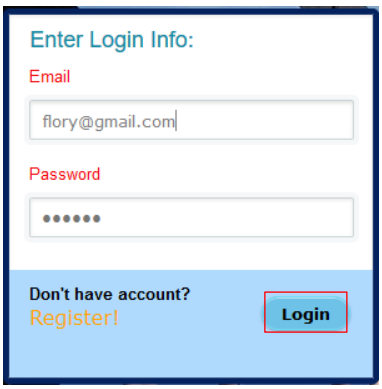


Fig (1.1.4)

After Testing

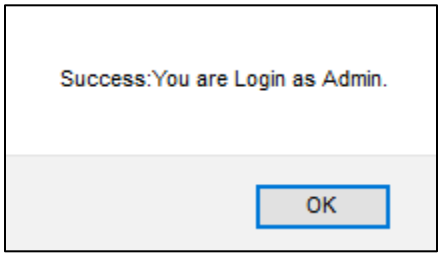


Fig (1.1.5)

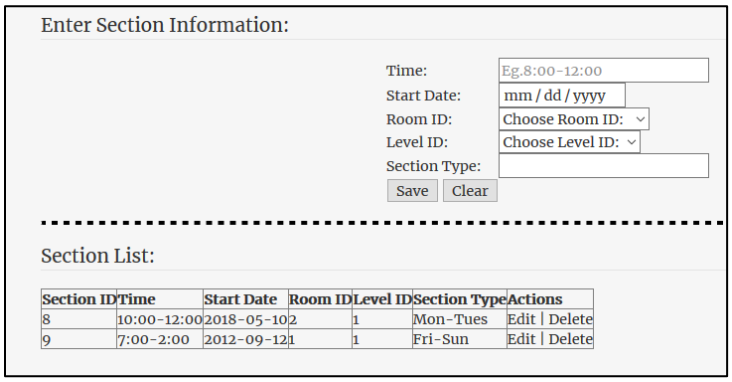
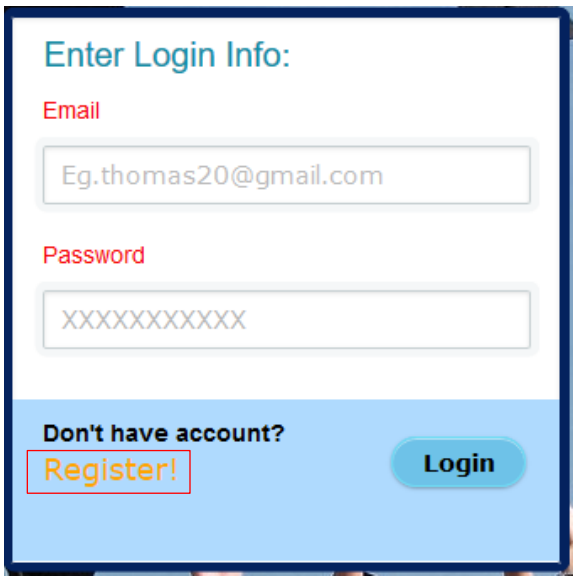


Fig (1.1.6)

Test Case	Description	Test Procedure	Expected Result	Actual Result
1.2	Register account is clicked.	Click on Register.	The user will go to Student Signup page.	See Fig 1.21 and 1.2.2

Before Testing



Fig(1.2.1)

After Testing

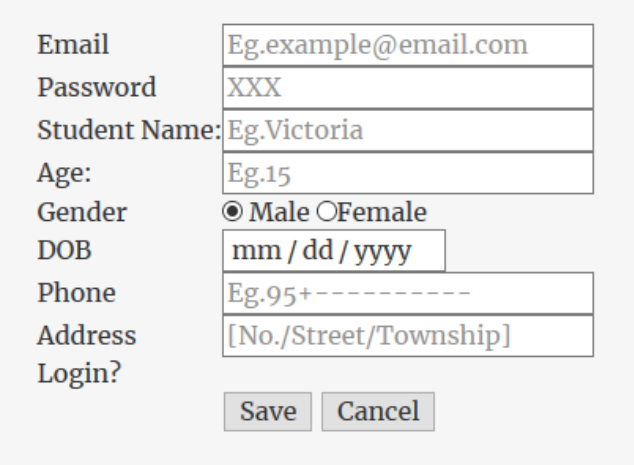
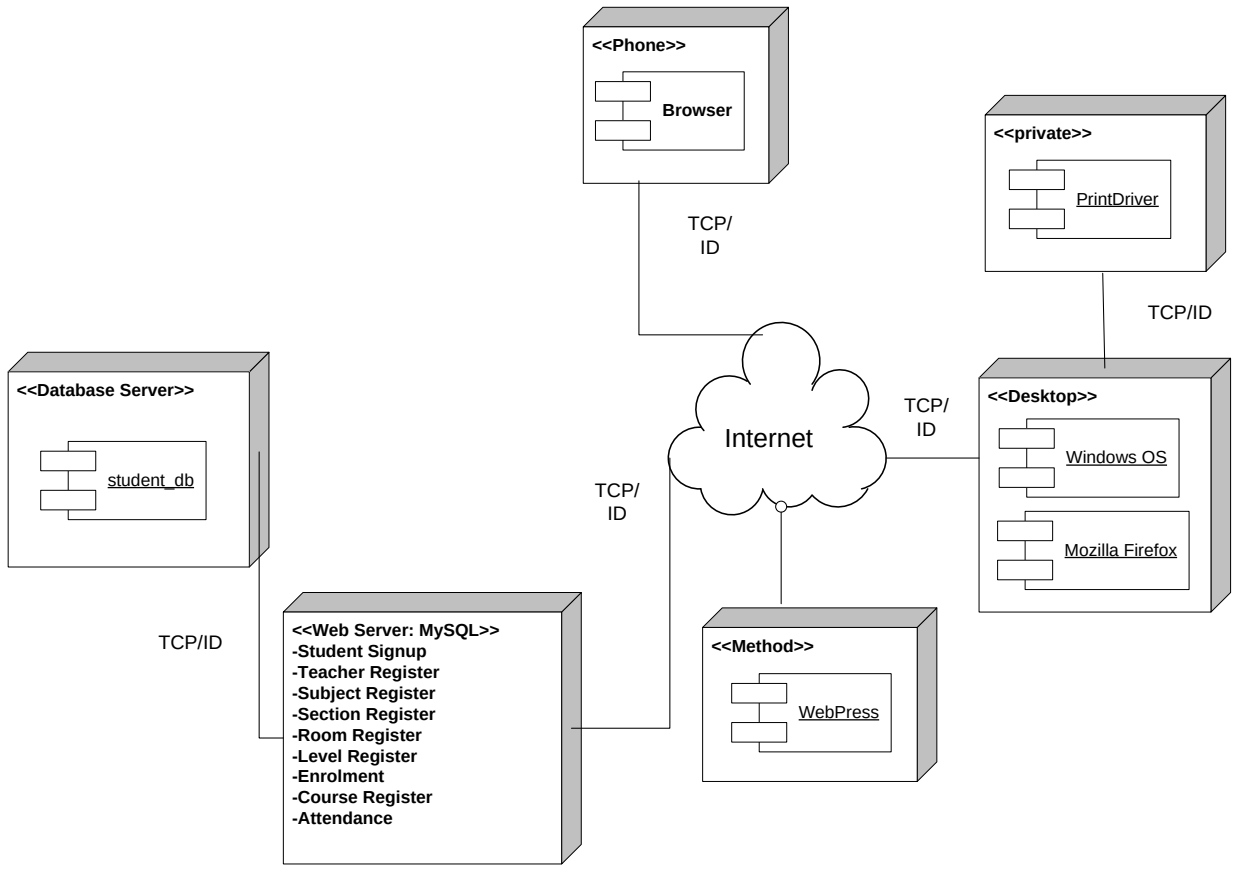


Fig (1.2.2)

(To see more of the testing, look to the appendix on pg.89.)

Chapter 8

Deployment Diagram (Implementation)



Explanation

The diagram shows what hardware components exist, and which software run on the node. The components are within the nodes. The servers, method, and devices are linked to the internet.

Data Migration

Data migration is the process to transport data between computers and storage devices. Basically, it is grouped into 4 types of migration: storage migration, database migration, application migration and business process migration. It is done to replace or upgrade servers. It is also useful when websites are combined to become stronger. When server maintenance is made, data migration can be done. When data centers are relocated, data also need to be migrated.

Process of Data Migration

Configuration

Members of the team have to check whether data that are to be migrated are working correctly. They have to make sure that storage is available and whether project tools and can be able to update the versions. In addition, they also have to ensure that hardware are available.

Data migration has to be stored in a single system, so that user only have to manage one system and can log in easily.

Migration design

Migration design is the stage where data are grouped into similar groups and is extracted in a clean way. Data are verified clearly so during migration, data flow can be done smoothly.

Testing design

Testing design is the test plan for the migration stages. Migration is tested from start to end. In this way, it is ensured that migration is working correctly for all the parts.

Migration development

Migration development is the stage where migration is developed using agile methods such as DSDM. In this stage, many stakeholders get involved.

Testing development

Testing for migration is made in the test framework. The test framework allows unit tests to be run regularly. By running on the framework, issues that happen can be immediately found.

Execution

A number of procedures will be stated to test, to allow the plans to be confirmed. The initial procedure may use only part of the sample data. After an initial procedure, a test migration takes place. This process helps ensure that the project is delivered successfully with minimum risk.

No.	Description	Start Date	End Date	Responsibility
1	Attendance Report	7/6/18	8/618	Data Entry
2	Course List	11/6/18	12/6/18	Data Entry
4	Enrolment List	13/6/18	14/6/18	Data Entry
5	Level List	18/6/18	19/6/18	Data Entry
7	Room List	20/6/18	21/6/18	Data Entry
9	Section List	25/6/18	26/6/18	Data Entry
11	Student List	28/6/18	29/6/18	Data Entry
13	Subject List	2/7/18	3/7/18	Data Entry
15	Teacher List	11/7/18	12/7/18	Data Entry

Training

Training Title	Type of User	Location	Date	Time	Tool	Description
Subject Register	Teacher	KMD Institute, Sanchaung Township, Yangon	20/4/2018	11:00-12:00	Operating System, Mozilla Firefox, Web Server, Wired Networking: Ethernet LAN Port, USB Ethernet Adapter	Admin need to learn how to register subjects in Subject Register page.
Section Register	Teacher	KMD Institute, Sanchaung Township, Yangon	21/4/2018	1:00-2:00	Operating System, Mozilla Firefox, Web Server, Hard drive, Wired Networking: Ethernet LAN Port, USB Ethernet Adapter	Admin are trained to understand how to input section data into the website.
Room Register	Teacher	KMD Centre, Conference Room	22/4/2018	10:00-2:00	Operating System, Mozilla Firefox, Web Server, Hard drive, Wired Networking: Ethernet LAN Port, Ethernet Adapter (USB)	Admin need to arrange room data since new classes are added every month.

Level Register	Teacher	KMD Institute, Sanchaung Township, Yangon	24/4/2018	2:00-3:00	Operating System, Mozilla Firefox, Web Server, Hard drive, Wired Networking: Ethernet LAN Port, USB Ethernet Adapter	Admin need to input level register to add level for each section, and courses.
Course Register	Teacher	MCC Grand Ballroom, Mindama	25/4/2018	4:00-6:00	Operating System, Mozilla Firefox, Web Server, Hard drive, Wired Networking: Ethernet LAN Port, USB Ethernet Adapter	Admin are trained to register courses into the website.
Teacher Signup	Teacher	KMD Head Office, Pansodan Road, Kyauktada Township	30/4/2018	10:00-12:00	Operating System, Web Server	Admin are trained to sign up to manage other classes, such as course and section.

Teacher List	Teacher	KMD Institute, Sanchaung Township, Yangon	4/5/2018	2:00-3:30	Operating System, Web Server	Admin are trained how to view their information in the teacher list.
Teacher Login	Teacher	KMD Sales center, Pansodan Street, Latha Township	7/5/2018	4:00-5:00	Operating System, Web Server	Admin learn how to login their account.
Student List	Teacher	KMD Institute, Pyay Road, Sanchaung Township	9/5/2018	10:00-10:45	Operating System, Web Server	Admin are trained to view the students' data in the Student List.
Section List	Teacher	KMD Institute, Pyay Road, Sanchaung Township	14/5/2018	11:00-12:00	Operating System, Web Server	Admin need to learn how to view all sections that are registered.
Enrolment List	Teacher	KMD, Pansodan Street, Latha Township	18/5/2018	1:00-2:00	Operating System, Web Server	Admin are trained to view the enrolment list.

Course Update	Teacher	KMD Institute, Pyay Road, Sanchaung Township	22/5/2018	11:00-12:00	Operating System, Web Server	Admin are trained to update the courses data.
Level Update	Teacher	KMD Institute, Pyay Road, Sanchaung Township	24/5/2018	2:00-3:00	Operating System, Web Server	Admin are trained to update level for each course.
Room Update	Teacher	KMD Institute, Pyay Road, Sanchaung Township	30/5/2018	10:00-11:00	Operating System, Web Server	Admin are trained to update room data.
Section Update	Teacher	KMD Institute, Pyay Road, Sanchaung Township	31/5/2018	1:00-2:00	Operating System, Web Server	Admin are trained to understand how to update section data.
Student Update	Teacher	KMD Institute, Pyay Road, Sanchaung Township	4/6/2018	11:00-12:00	Operating System, Web Server	Admin are trained to fix students data by getting in the student list.

Teacher Update	Teacher	KMD Institute, Pyay Road, Sanchaung Township	8/6/2018	11:00-12:00	Operating System, Web Server	Admin learn how to update teachers' information in the teacher list.
Subject Update	Teacher	KMD Institute, Pyay Road, Sanchaung Township	11/6/2018	12:00-1:00	Operating System, Web Server	Admin are trained to update the data by getting into the subject list.

Chapter 9

Evaluation against Aims and Objectives

Aims and Objectives

The project was aimed to make the school get more enrolments, and to get rid of unneccessary paper works at school. It is also made to make the students data up-to-date and exact.

All of the objectives are received in this project. For instance, students' attendance are marked in the website, so parents can view their children's attendance easily. Section, teacher and student list are also available. Enrolment form is also included in the website, which is very important for the aim.

What have been done?

Under Literature Review, strength and weakness of 2 methods-SSADM and DSDM are compared. Then, DSDM which have more strength is recommended for the project. Next, languages such as PHP and ASP.Net are described and the PHP which have more advantages is chosen for the project. Afterwards, databases, MySQL and Oracle is compared and MySQL is recommended to be used for the project.

To get ideas from other websites, similar websites are analysed. Then, both of the websites' criteria are compared. After that, strength and weakness of each website is described in the table. Next, in the recommendation, it is stated that the strengths that some websites have are to be used for the student system, and weakness are to be avoided.

Lessons Learnt

While making this project, there are many lessons learned from problems, and from using software. During method comparison, SSADM and DSDM's strength and weaknesses are compared. By comparing, lesson is learned that DSDM has more strength than SSADM. DSDM is affective for the project because it is cheap and is easy to use. Moreover, user have to involve when using the methodology, which is a new information.

Evaluation against Similar System Comparison

Functional Comparison

Student Register is included to allow the users to view the website. Enrolment form is included to allow the users to enroll. Section and course list, are also used to allow the users to view sections and courses. Level, room and subject list are also included. Attendance list is also available to allow the parents to view their chidlren's monthly presence and absenteeism at school. Payment is also available to allow parents to give school fees on the website if they are busy to pay at school. Moreover, teacher register is also available, so that teachers can get into the website and update the data of the student system.

Usability Comparison

The websites are Columbia University and the British School Yangon. These two similar websites' usability are compared. The Columbia University's website have it's menu display changing in every pages, whereas The British School Yangon has it's menu display horizontally in every pages. Then, looking at search boxes, Columbia University's website has search box, when British School does not have it. Moreover, Columbia's website is short, while BSY's website is long.

Evaluation of the system against Possible Legal, Social, Ethical Issues

Legal

Copyright Issue

When making a project, there is some laws which have to be considered. For example, there is Copyright Designs and Patents Act 1988. It is a law where original owner have the right to protect their works. Therefore, when taking pictures from others, members have to be careful with copyright. Furthermore, they also have to be careful not to sell the data of customer to someone.

Domain Name

Domain name such as URL is also legal issue. When making a website, members have to make sure that website's domain name is not owned yet.

Social

Using different devices

Research have shown that people use mobile phones more than PCs during these years. Therefore, the design of the website also have to be mobile-friendly. Moreover, some people use tablets, and notebooks to view the website, so website need to be adaptive to many devices.

Compatibility with Many Browsers

As technology is growing rapidly, many internet browsers become available. Therefore, when the users view the website with different browsers, the website is not reachable in some browsers.

Ethical

Data Protection Issue

There are many ethical issues that are to be considered when making a website. Data Protection Act allows the users to protect important data. Therefore, members should not use customers' data without permission to avoid Data Protection Act. They should only ask for general information, such as gender or date of birth. However, if the members want to store information such as address or phone number for specific purposes, they have to make sure the data are kept safe from hackers.

Evaluation against Justifications Made

Language

Selected Languages: PHP language is used.

Problems Encountered: There was a technical problem concerning with version. When the website and the user's php version are different, there are problems.

Lessons Learnt: PHP is a scripting language, which is embedded in HTML. Template designs' codes can be written in PHP, which is effective when creating a website. Users can fix and update form designs, since data is encrypted in PHP.

Database

Selected Database: MySQL is used.

Problems Encountered: When using MySQL, mysql_connect () function was a problem, because the php version does not compile with MySQL. Sometimes, the connection get lost in the middle of transfer.

Lessons Learnt: When using MySQL, the user does not need to know how to use SQL. It is the database management system that is used for various kind of projects with different sizes. It runs as a server to store and retrieve the website's information.

Methodology

Selected Methodology: DSDM is used.

Problems Encountered: DSDM needs a lot of requirements.

Lessons Learnt: DSDM is a method used for software's project. In this project, example of DSDM is MOSCOW.

Evaluation against Project Plan

The project of student system is on track with the plan. Designs and datas such as login forms, and subject register forms are completed on time. However, exam registers, and parent login are not completed on time.

Future Amendments

There are plans to be accomplished in the future for the project. Features such as exam registers, results, and certificates are to be shown on the website. Exam schedules can also be viewed. If there is more time, parent portal could be created in the website, so that parents can easily view the percentage of their children's presence and absence in the class. Moreover, they can contact with the teachers online if they want to ask about the children's progress. Holidays of the school can also be included on the website. Recently, the project records students' attendance online, by ticking present and absent in the table. In the future, leave students can also be recorded on the website, so that teachers can easily know whether the students informed their absence or not. Furthermore, search box will also be available so that users can search easily by typing keywords.

References

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Appendix

Requirements Catalogue

Function	Description	Acceptance Criteria
Student Signup	It is required because students need to log in to the website.	If new students want to register, they have to create account by themselves.
Enrolment	It is required to make enrolment available online.	One enrolment form accept one student ID only.
Section Register	It needs to be included so that new students can also view the section from website.	Section data can only be changed by admin.
Course Register	It is required to get information of course name, and description.	Course can only be changed only when new course is to be added. Course can be only managed by admin.
Level Register	It is required to have information of Level ID, Level Name, Duration, and Fee, and course ID.	Level Register is managed by admins only.
Room Register	It needs to be included so that room types can be managed online.	Room can be changed by admin only.
Subject Register	Subjects are required so that students can view the subject names easily.	Subject can be changed by admin only.
Attendance	It is required to save absenteeism and presence without data loss.	Attendance needs to be checked by admin. Data can be recorded and cannot be updated.
Teacher Register	It is required to reduce data loss.	Teachers' data need to be input by admin only.

Use case descriptions

1. Use case Name- Signup Student

   Actor-Student

   Pre-condition- none

   Description-make account

   - log in

   Alternative-If student have already used same email address, the student cannot signup again.

2. Use case Name-Make Enrolment

   Actor- Student

   Pre-condition-Signup Student

   Description-click enrolment button

   -fill in the form

   -contact school if message is not return

   Alternative-If a student have login with the same email address, student cannot enroll in two sections.

3. Use case Name- Register Teacher

   Actor-Admin

   Pre-condition-none

   Description-add Teacher ID

   -add Email

   -add teacher name

   -input address

   -add nationality

   -input gender

   -input age

   -add date-of-birth

   -add qualification

   Alternative-if there are no new teachers, teacher register is not necessary.

4. Use case Name- Register Section

   Actor-Admin

   Pre-condition-none

   Description-fill in section data

   Alternative-if there are no new teachers, teacher register is not necessary.

5. Use case Name- Manage Level

   Actor-Teacher

   Pre-condition- Register Course

   Description-Level ID is auto.

   -add Level Name

   -add Duration

   -add Fee

   Alternative-if there are no new courses, level is not necessary.

6. Use case Name- Record Attendance

   Actor-Teacher

   Pre-condition-Signup Student

   Description-add Student ID

   -check each student’s presence, and absence

   -record the date

   Alternative-It the classes are on term breaks, attendance is not necessary.

7. Use case Name- Register Room

   Actor-Teacher

   Pre-condition-Register Section

   Description-Room ID is auto.

   - define room number

   -add floor

   -add room number

   Alternative-if certain classes are defined permanently; room description does not need to be changed.

8. Use case Name- Register Course

   Actor-Teacher

   Pre-condition-none

   Description-Course needs to be register to fill in the data of courses such as Course ID, Course Name, and Description.

   Alternative-if there are no new courses, course register is not necessary.

9. Use case Name-Register Subject

   Actor-Teacher

   Pre-condition- Register Course

   Description-add Subject ID

   -add Subject Name

   -add Level ID

   Alternative-if no new subjects are added, subject register may not be necessary.

Detail Class Definitions

Class Diagram Name-Student

Attributes-Student ID, Student Name, Age, Gender, Address, DOB, Phone, Email, Password

Operations-Create Student, Save Student

Description-Student class is to save each student's information. It allows the user to register admins, validate the user name and passwords and give system access to the admin if logged in with correct username and password

Class Diagram Name-Enrolment

Attributes-Enroll ID, Enroll Date, Student ID, Total Amount, Deposit Amount, Level Name, Section ID, Cart Type, Account

Operations-Create Enrolment, Save Enrolment

Description-Enrolment class allows students to enroll online.

Class Diagram Name-Section

Attributes-Section ID, Time, Start Date, Room ID, Level ID, Section Type

Operations-Create Section, Save Section, Update Section, Delete Section

Description-Section class is to record section's data. Teachers can view the timetable of each section.

Class Diagram Name-Course

Attributes-Course ID, Course Name, Description

Operations-Create Course, Save Course, Update Course

Description-Course class is to save information of courses at school.

Class Diagram Name-Level

Attributes-Level ID, Level Name, Duration, Fee, Course ID

Operations-Create Level, Save Level, Update Level

Description-Level class is to collect data of levels.

Class Diagram Name-Room

Attributes-Room ID, Room No, Floor, Room Type

Operations-Create Room, Save Room, Update Room

Description-Room class is to manage all the rooms at school so that each room can be classified as hall room, office, libraries, and class rooms.

Class Diagram Name-Attendance

Attributes-Attendance ID, Student ID, Status, Attendance Date, Section ID

Operations-Create Attendance, Save Attendance, Update Attendance

Description-Attendance class is to manage every student’s presence, absenteeism in classes.

Class Diagram Name-Subject

Attributes-Subject ID, Subject Name, Level ID

Operations-Create Subject, Save Subject, Update Subject

Description-Subject class is to save all the details of subject.

Class Diagram Name-Teaching Detail

Attributes-Student ID, Subject ID, Teacher ID

Operations-none

Description-Teaching Detail class is to save all the details of teaching. It is the dummy table.

Class Diagram Name-Teacher

Attributes-Teacher ID, Email, Teacher Name, Address, Nationality, Gender, Age, DOB, Working Hours, Qualification, Phone

Operations-Create Teacher, Save Teacher, Update Teacher, Delete Teacher

Description-Teacher class is to record every teacher's information.

Testing

Unit Test 2		Test Case: Data for users to logout	Designed by: THUN SU NYI NYI	
Data Source: Logout Form		Objective: To allow the students and admin to logout of the website.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
2.1	Logout button in the menu table is tested.	Logout in the menu table is clicked.	The user will get to login page.	See Fig 2.1.1, 2.1.2, and 2.1.3

Before Testing

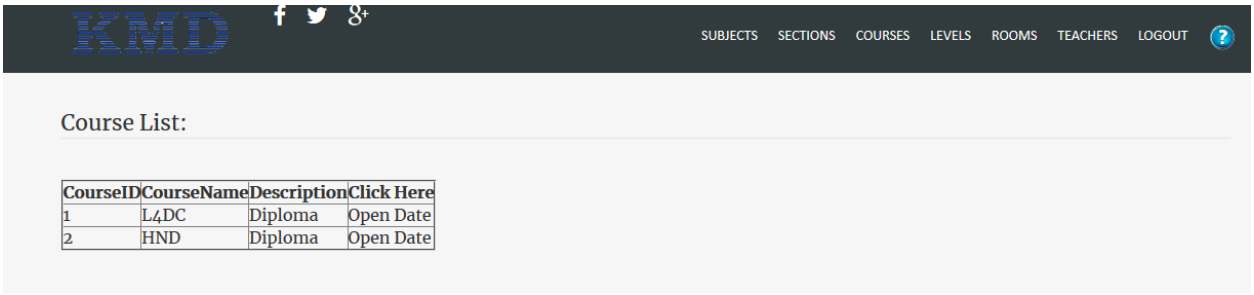


Fig (2.1.1)

After Testing

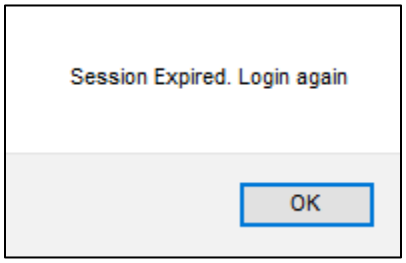


Fig (2.1.2)

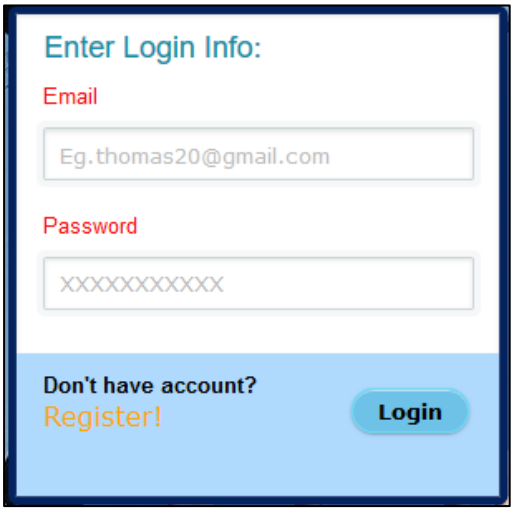


Fig (2.1.3)

Unit Test 3		Test Case: Data entry for student signup	Designed by: THUN SU NYI NYI	
Data Source: Student Signup Form		Objective: To allow the students to signup to view the website.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
3.1	Login button is available to allow the students who have already registered to log in.	Click on Login button.	After click, Login page will appear.	See Fig 3.1.1, and 3.1.2

Before Testing

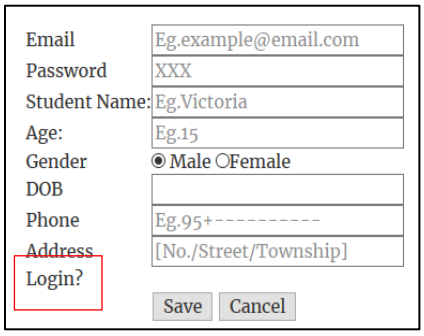


Fig (3.1.1)

After Testing

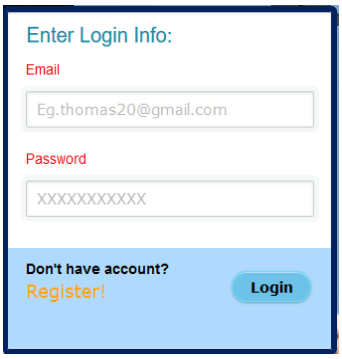


Fig (3.1.2)

Test Case	Description	Test Procedure	Expected Result	Actual Result
3.2	All the required information is filled in the form.	Write the information in the forms. Click ‘Save’ button.	Message box will appear.	See Fig 3.2.1, and 3.2.2

Before Testing

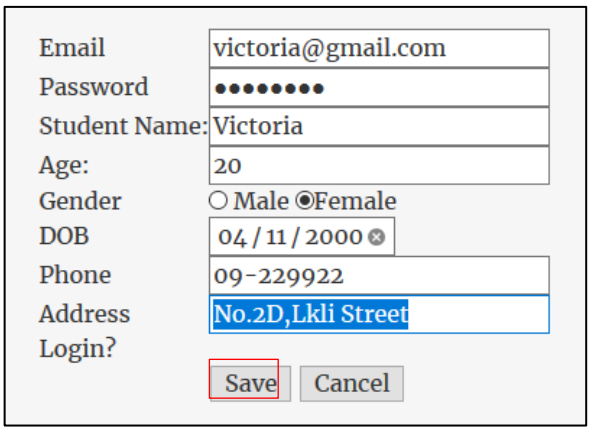


Fig (3.2.1)

After Testing

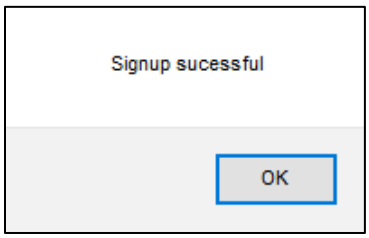


Fig (3.2.2)

Test Case	Description	Test Procedure	Expected Result	Actual Result
3.3	Same student data is input.	Write all the information of Victoria again.	Message box will appear saying that the data already exists.	See Fig 3.3.1 and 3.3.2

Before Testing

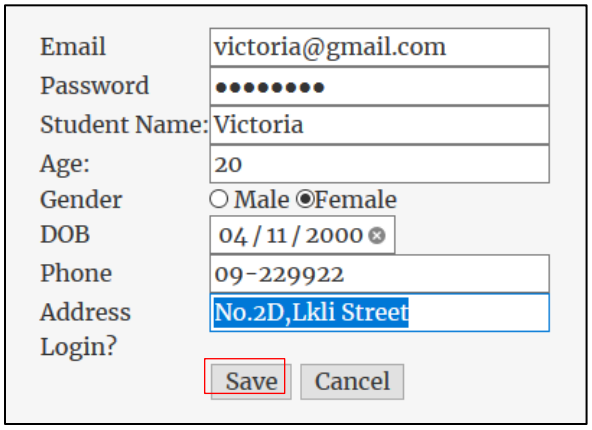


Fig (3.3.1)

After Testing

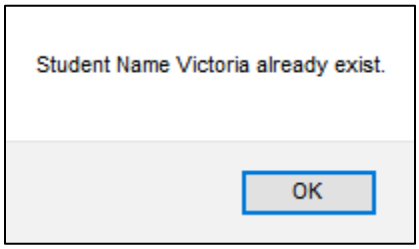


Fig (3.3.2)

Unit Test 4		Test Case: Display of Student data.	Designed by: THUN SU NYI NYI	
Data Source: Student List		Objective: To test whether student data which is filled in the Student Signup form appear in the student list.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
4.1	Data is filled in the Signup form.	Fill in all the information in the Student Signup.	Data will be shown in the Student list.	See Fig 4.1.1,4.1.2, and 4.1.3

Before Testing

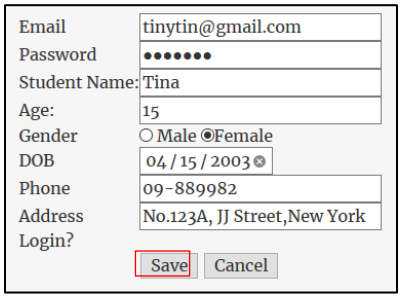


Fig (4.1.1)

After Testing

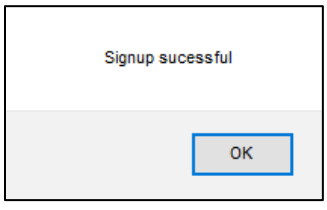


Fig (4.1.2)

5	Tina	15	F	No.123A, JJ Street,New York	2003-04-15	09-889982	tinytin@gmail.com	tinytin	Edit | Delete

Fig (4.1.3)

Unit Test 5		Test Case: Data entry for Student Update.	Designed by: THUN SU NYI NYI	
Data Source: Student Update Form		Objective: To update student data in the database.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
5.1	Student Name is changed.	Student Name is changed from Patricia to John.	The data is updated in the table.	See Fig 5.1.1,5.1.2, and 5.1.3

Before Testing

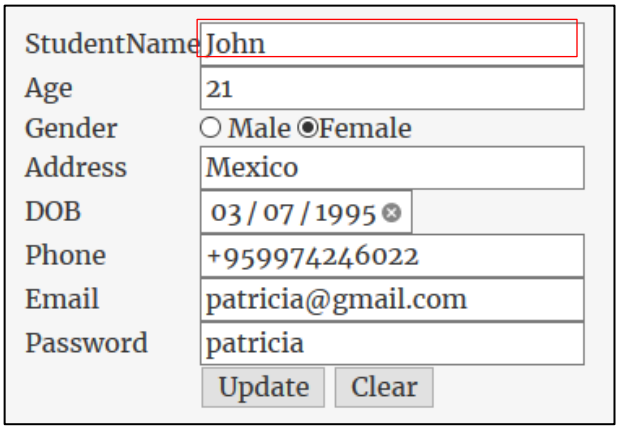


Fig (5.1.1)

After Testing

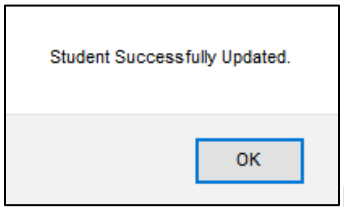


Fig (5.1.2)

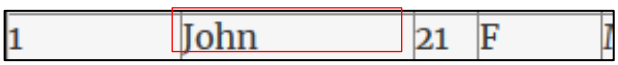


Fig (5.1.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
5.2	Age is written in string.	Write Eighteen in the age text box.	Data will be zero.	See Fig 5.2.1, 5.2.2, and 5.2.3

Before Testing

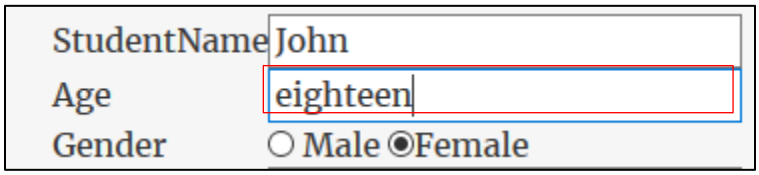


Fig (5.2.1)

After Testing

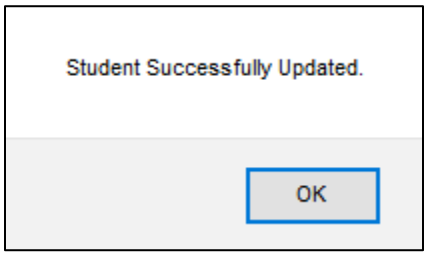


Fig (5.2.2)

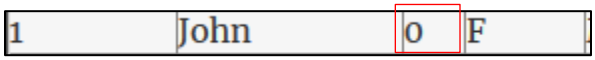


Fig (5.2.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
5.3	Gender is changed to female.	Click on the radio button Male.	Data will change.	See Fig 5.3.1, 5.3.2, and 5.3.3

Before Testing

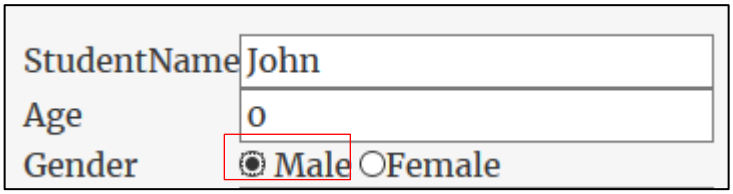


Fig (5.3.1)

After Testing

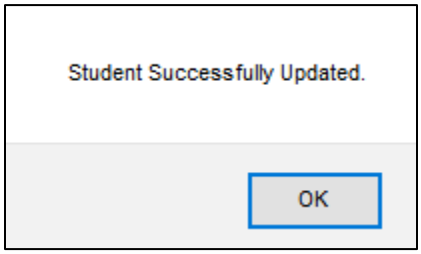


Fig (5.3.2)

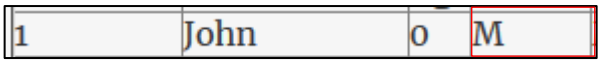


Fig (5.3.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
5.4	Address is changed.	Mexico to London.	Data will be saved as London.	See Fig 5.4.1, 5.4.2, and 5.4.3

Before Testing

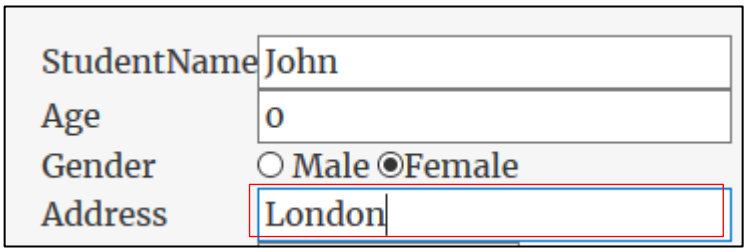


Fig (5.4.1)

After Testing

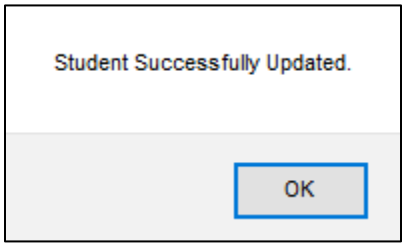


Fig (5.4.2)

Fig (5.4.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
5.5	DOB is changed.	Change date of birth by filling the DOB text box.	Data will be saved.	See Fig 5.5.1, 5.5.2, and 5.5.3

Before Testing

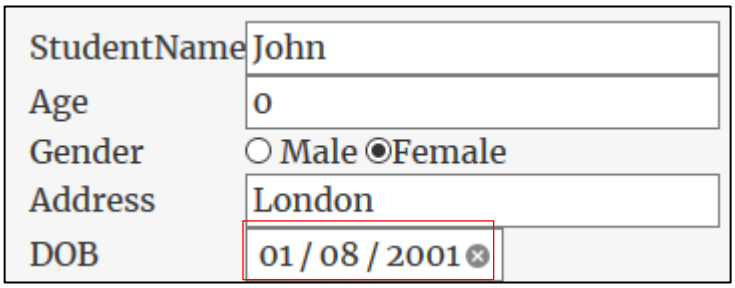


Fig (5.5.1)

After Testing

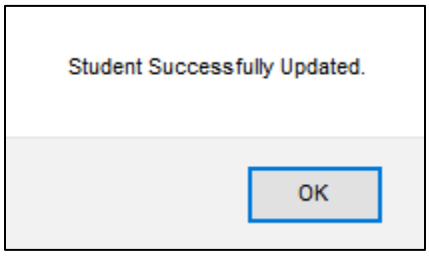


Fig (5.5.2)

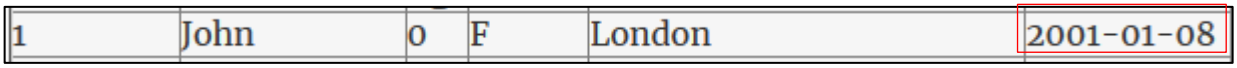


Fig (5.5.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
5.6	Phone data is changed.	Write 01872211 in date text box.	Data will be saved.	See Fig 5.6.1, 5.6.2, and 5.6.3

Before Testing

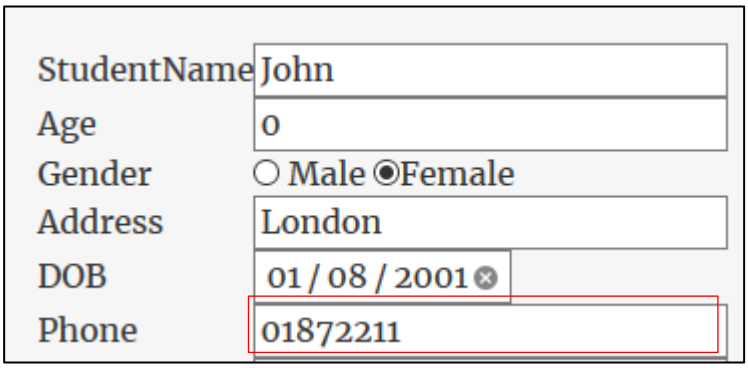


Fig (5.6.1)

After Testing

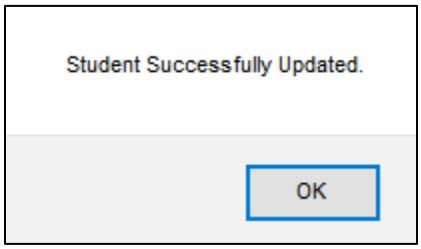


Fig (5.6.2)

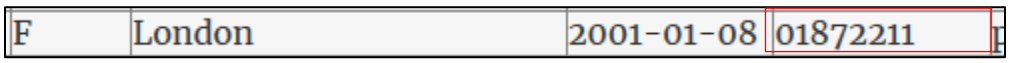


Fig (5.6.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
5.7	Email data is changed.	Write john@gmail.com in the text box.	Data will be saved.	See Fig 5.7.1, 5.7.2, and 5.7.3

Before Testing

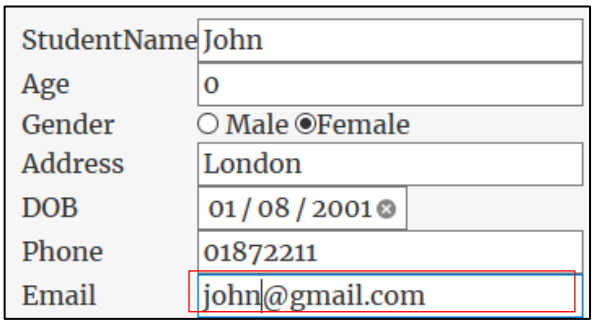


Fig (5.7.1)

After Testing

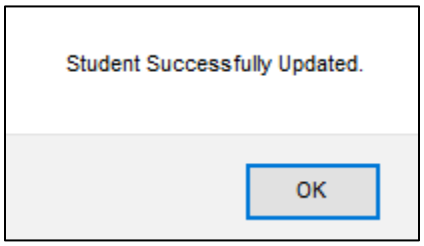


Fig (5.7.2)

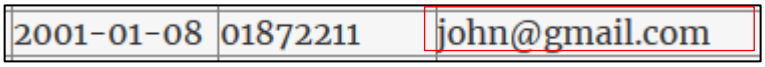


Fig (5.7.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
5.8	Password is changed.	Write john142 in the text box.	Data will be saved.	See Fig 5.8.1, 5.8.2, and 5.8.3

Before Testing

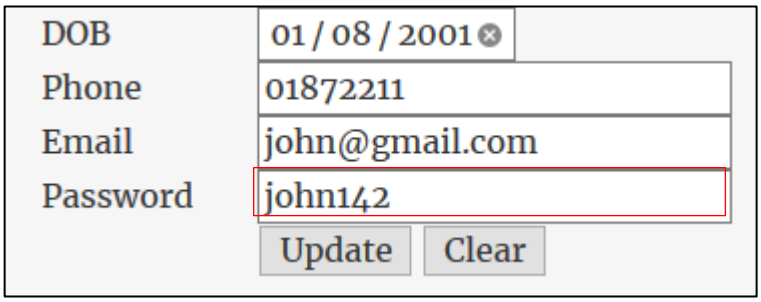


Fig (5.8.1)

After Testing

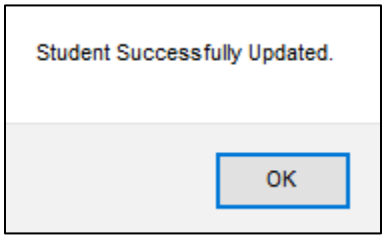


Fig (5.8.2)

Fig (5.8.3)

Unit Test 6		Test Case: Entry to delete Student data.	Designed by: THUN SU NYI NYI	
Data Source: Student Delete Form		Objective: To test whether student data can be deleted from the Student List.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
6.1	Student data is deleted.	Delete the student data from Student List	Data will be deleted in the Student list.	See Fig 6.1.1,6.1.2, and 6.1.3

Before Testing

5	Tina	15	F	No.123A, JJ Street,New York	2003-04-15	09-889982	tinytin@gmail.com	tinytin	Edit	Delete

Fig (6.1.1)

After Testing

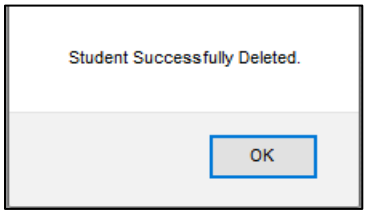


Fig (6.1.2)

StudentID	StudentName	Age	Gender	Address	DOB	Phone	Email	Password	Actions
1	John	0	F	London	2001-01-08	01872211	john@gmail.com	john142	Edit | Delete
2	mgmg	0	M	No.12,Utter Street	1990-12-31	09212121	mgmg@gmail.com	mgmg	Edit | Delete
3	Thomas	24	M	Sanchaung,Yangon	0000-00-00	09-77445533	thomas@gmail.com	tmas	Edit | Delete
4	Victoria	20	F	No.2D,Lkli Street	2000-04-11	09-229922	victoria@gmail.com	victoria	Edit | Delete

Fig (6.1.3)

Unit Test 7		Test Case: Entry to Teacher Register.	Designed by: THUN SU NYI NYI	
Data Source: Teacher Register Form		Objective: To input data of teachers.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
7.1	Teacher data is filled in Teacher register form.	Fill in all the information in the form.	Register successful message will appear. Data will appear in the teacher list.	See Fig 7.1.1, 7.1.2, and 7.1.3

Before Testing

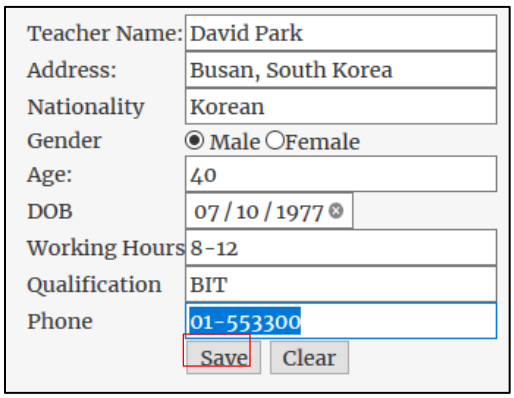


Fig (7.1.1)

After Testing

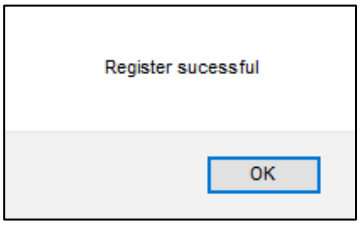


Fig (7.1.2)

5	David Park	Busan, South Korea	Korean	M	40	1977-07-10	8-12	BIT	01-553300

Fig (7.1.3)

Unit Test 8		Test Case: Entry to update teacher data from database	Designed by: THUN SU NYI NYI	
Data Source: Teacher Update Form		Objective: To fix and edit teachers' information.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
8.1	Teacher's name is changed.	Click edit buton in teacher's list. Change the teacher's name.	Data will be changed in the teacher list.	See Fig 8.1.1, 8.1.2, 8.1.3, and 8.1.4

Before Testing

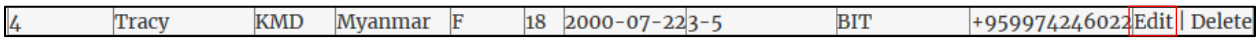


Fig (8.1.1)

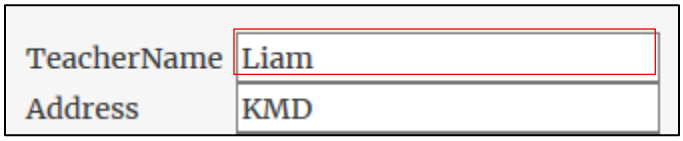


Fig (8.1.2)

After Testing

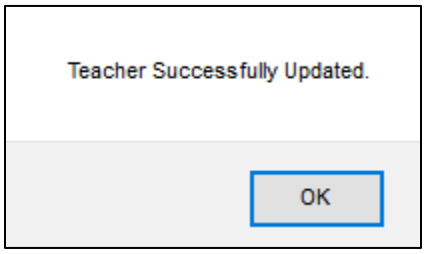


Fig (8.1.3)

Fig (8.1.4)

Test Case	Description	Test Procedure	Expected Result	Actual Result
8.2	The address where teacher lives is changed.	Click Edit button. Write Brooklyn street, France in the text box.	Data will be changed in the teacher list.	See Fig 8.2.1, 8.2.2, and 8.2.3

Before Testing

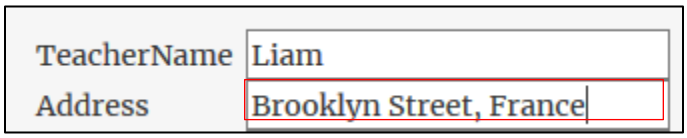


Fig (8.2.1)

After Testing

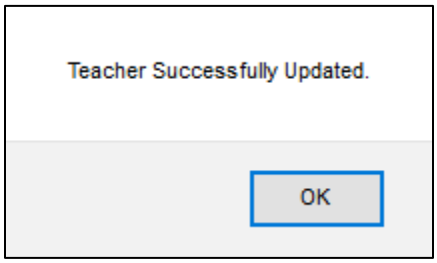


Fig (8.2.2)

Fig (8.2.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
8.3	The nationality of the teacher is changed.	Write French in the text box.	Data will be changed in the teacher list.	See Fig 8.3.1, 8.3.2, and 8.3.3

Before Testing

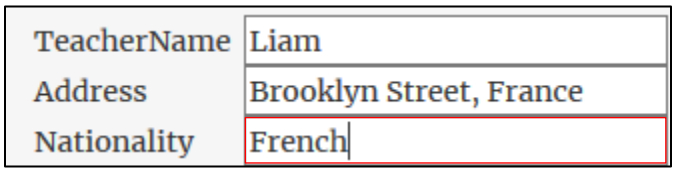


Fig (8.3.1)

After Testing

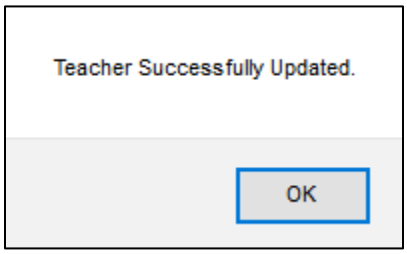


Fig (8.3.2)

Fig (8.3.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
8.4	Gender of the teacher is changed.	Click on Male radio button.	Data will change to M symbol in the Teacher List.	See Fig 8.4.1, 8.4.2, and 8.4.3

Before Testing

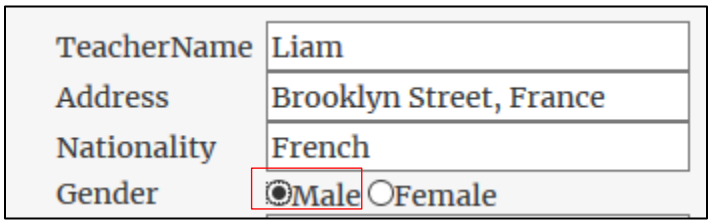


Fig (8.4.1)

After Testing

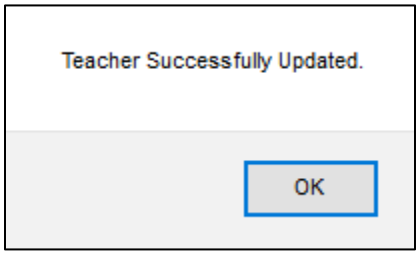


Fig (8.4.2)

Fig (8.4.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
8.5	Age is changed to string values.	Write twenty in the text box.	Data for Age will be zero in the list.	See Fig 8.5.1, 8.5.2, and 8.5.3

Before Testing

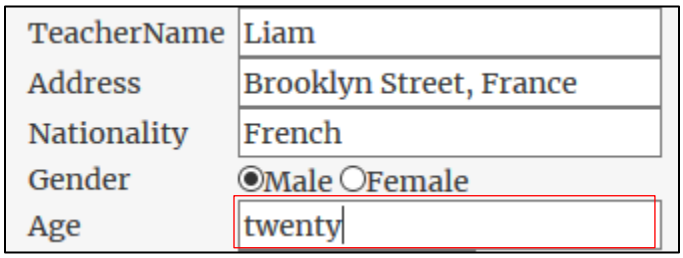


Fig (8.5.1)

After Testing

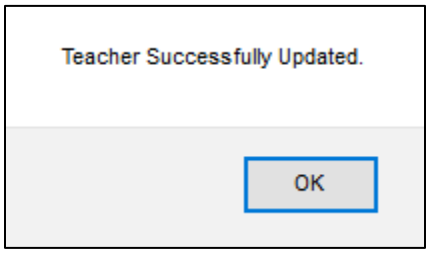


Fig (8.5.2)

Fig (8.5.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
8.6	Date-of-birth is changed by clicking at the calendar.	Click on a different date on the calendar.	The data will be changed in the Teacher List.	See Fig 8.6.1, 8.6.2, and 8.6.3

Before Testing

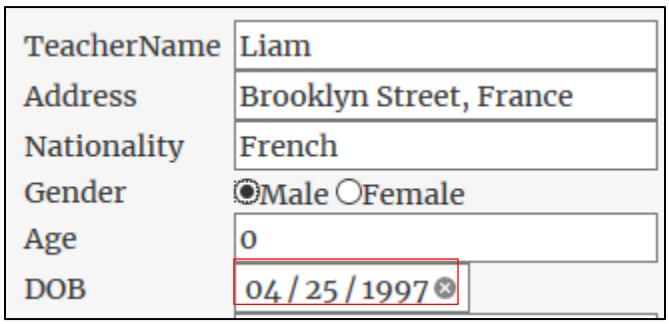


Fig (8.6.1)

After Testing

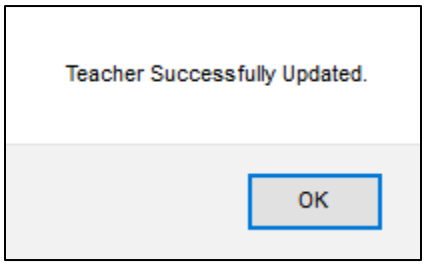


Fig (8.6.2)

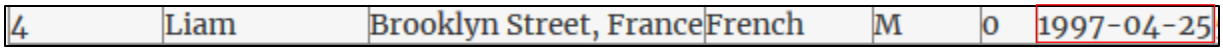


Fig (8.6.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
8.7	Working Hour is changed in the update form.	Write 12-3 in the text box.	Data changes in the teacher list.	See Fig 8.7.1, 8.7.2, and 8.7.3

Before Testing

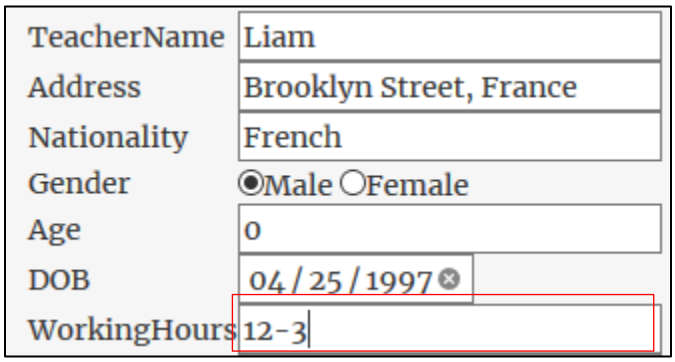


Fig (8.7.1)

After Testing

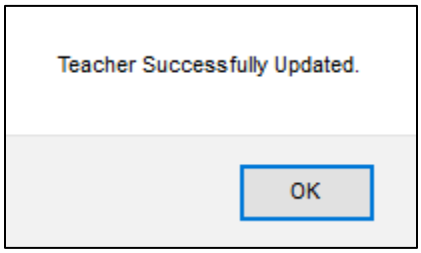


Fig (8.7.2)

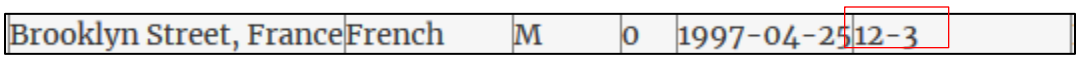


Fig (8.7.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
8.8	Teacher's qualification is changed.	Write Diploma in Computer Science in the qualification.	Data changes in the teacher list.	See Fig 8.8.1, 8.8.2, and 8.8.3

Before Testing

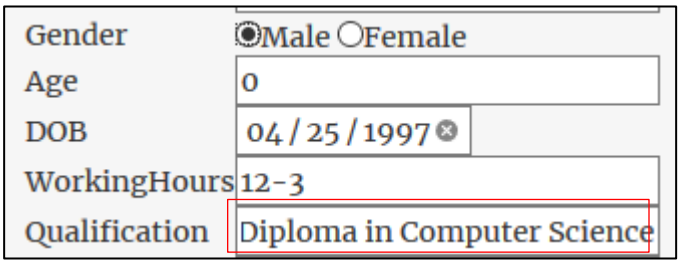


Fig (8.8.1)

After Testing

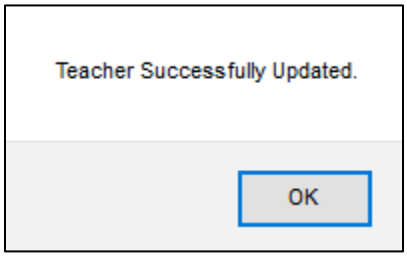


Fig (8.8.2)

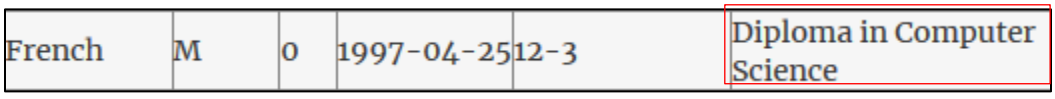


Fig (8.8.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
8.9	Phone number is changed.	Write 09123456 in text box.	Data changes in the teacher list.	See Fig 8.9.1,8.9.2, and 8.9.3

Before Testing

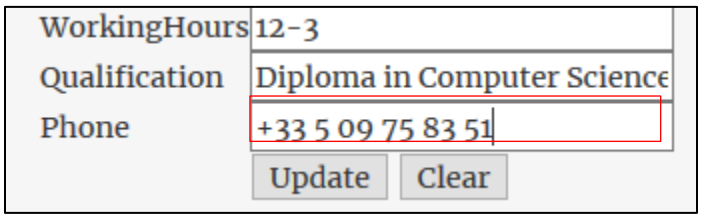


Fig (8.9.1)

After Testing

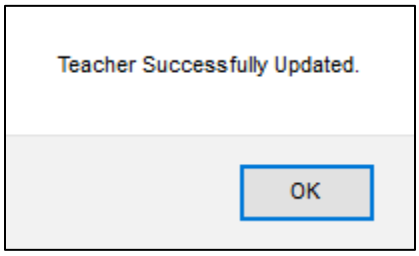


Fig (8.9.2)

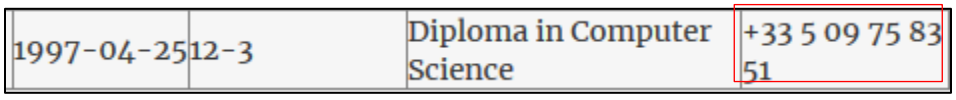


Fig (8.9.3)

Unit Test 9		Test Case: Entry to Teacher Delete.	Designed by: THUN SU NYI NYI	
Data Source: Teacher Delete Form		Objective: To delete data of teachers.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
9.1	Teacher data is deleted from the database.	Click the delete button in the teachers list.	Message will appear.	See Fig 9.1.1, 9.1.2, and 9.1.3

Before Testing

4	Liam	Brooklyn Street, France	French	F	0	1997-04-25	12-3	Diploma in Computer Science	+33 5 09 75 83 51	Edit | Delete

Fig (9.1.1)

After Testing

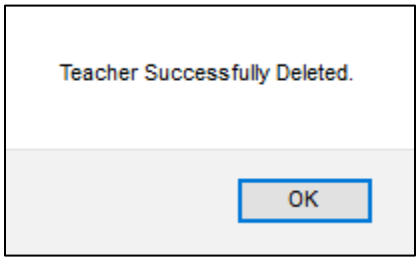


Fig (9.1.2)

Teacher List:

TeacherID	TeacherName	Address	Nationality	Gender	Age	DOB	WorkingHours	Qualification	Phone	Actions
3	Paul Chan	China	China	F	0	1993-10-04	5-9	B.I.T Diploma	08-443333	Edit | Delete

Fig (9.1.3)

Unit Test 10		Test Case: Data entry for subject register	Designed by: THUN SU NYI NYI	
Data Source: Subject Register Form		Objective: To test whether Level ID accept string data.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
10.1	Data is filled beside Subject Name, and Level ID.	Write Subject Name Teamwork, and Level ID 3.	Data will be shown in the subject listing.	See Fig 10.1.1, 10.1.2, and 10.1.3

Before Testing

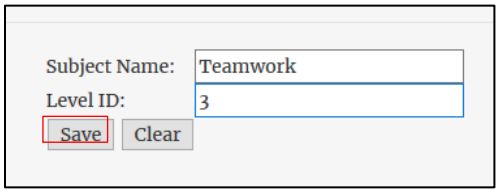


Fig (10.1.1)

After Testing

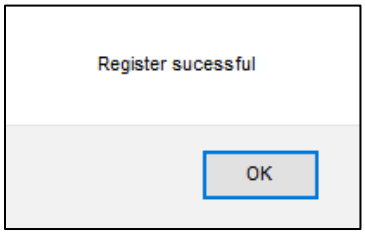


Fig (10.1.2)

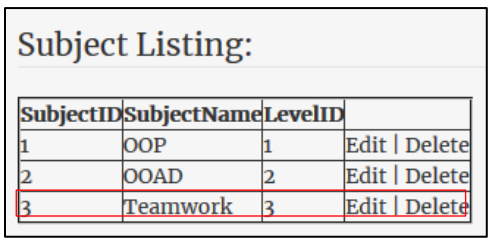


Fig (10.1.3)

Unit Test 11		Test Case: Data entry to update subjects	Designed by: THUN SU NYI NYI	
Data Source: Subject Update Form		Objective: To test whether subjects can be updated in subject register form.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
11.1	Subject Name is changed.	Write Subject Name Teamwork, and Level ID 3.	Data will be changed in the Subject Listing.	See Fig 11.1.1, 11.1.2, and 11.1.3

Before Testing

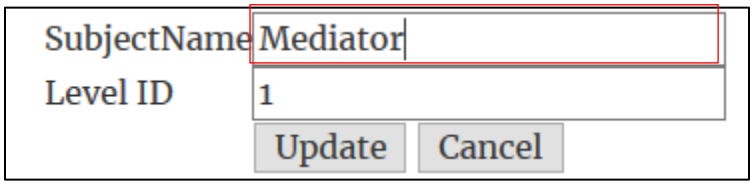


Fig (11.1.1)

After Testing

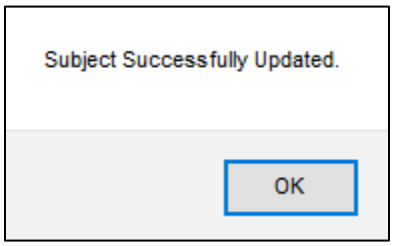
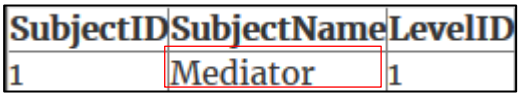


Fig (11.1.2)



SubjectID	SubjectName	LevelID
1	Mediator	1

Fig (11.1.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
11.2	Level ID is changed.	Change Level ID to 3.	The data will change in the Subject List.	See Fig 11.2.1, 11.2.2, and 11.2.3

Before Testing

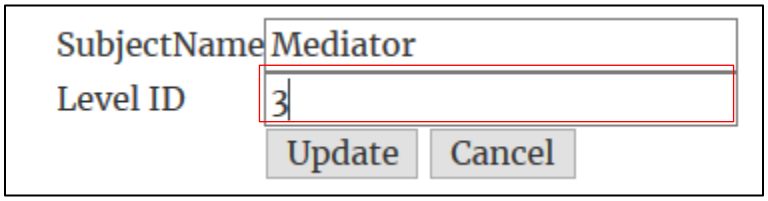


Fig (11.2.1)

After Testing

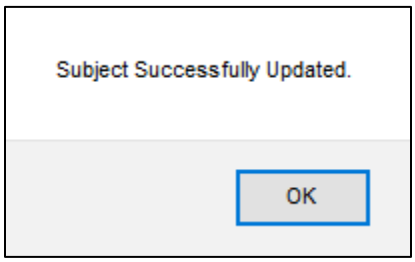


Fig (11.2.2)

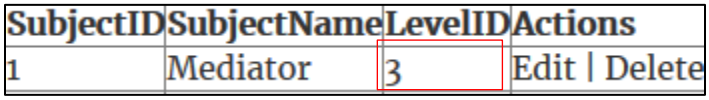


Fig (11.2.3)

Unit Test 12		Test Case: Data entry to view subject data in one table.	Designed by: THUN SU NYI NYI	
Data Source: Subject List		Objective: To test whether data gets into the database.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
12.1	Fill in all the text boxes in the form.	Fill the forms in subject register form. Then, view in the subject list.	Data can be viewed in the subject list.	See Fig 12.1.1, 12.1.2, and 12.1.3

Before Testing

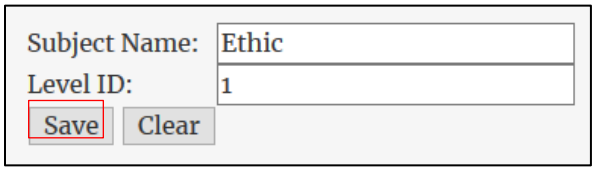


Fig (12.1.1)

After Testing

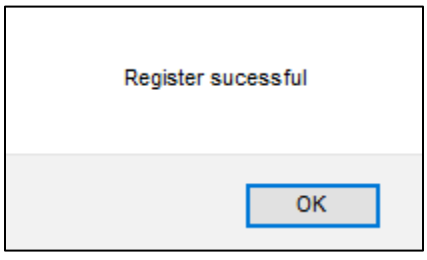
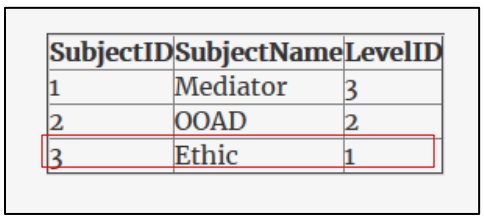


Fig (12.1.2)



SubjectID	SubjectName	LevelID
1	Mediator	3
2	OOAD	2
3	Ethic	1

Fig (12.1.3)

Unit Test 13		Test Case: Entry to delete subjects.	Designed by: THUN SU NYI NYI	
Data Source: Subject Delete		Objective: To delete the subjects that is to be removed.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
13.1	Subject is to be deleted.	Click on Delete in the Subject Listing in Subject Register form.	Data will no longer exist in the Subject List.	See Fig 13.1.1, 13.1.2, and 13.1.3

Before Testing

SubjectID	SubjectName	LevelID	Actions
1	Mediator	3	Edit | Delete
2	OOAD	2	Edit | Delete
3	Ethic	1	Edit | Delete

Fig (13.1.1)

After Testing

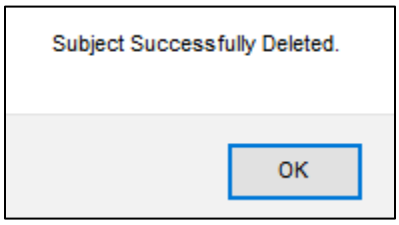


Fig (13.1.2)

SubjectID	SubjectName	LevelID	Actions
1	Mediator	3	Edit | Delete
2	OOAD	2	Edit | Delete

Fig (13.1.3)

Unit Test 14		Test Case: Data entry for section register.	Designed by: THUN SU NYI NYI	
Data Source: Section Register Form		Objective: To test whether data gets into the database.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
14.1	Fill in all the text boxes in the form.	Click on Save button.	Message appears, and data will appear in the section list.	See Fig 14.1.1, 14.1.2, and 14.1.3

Before Testing

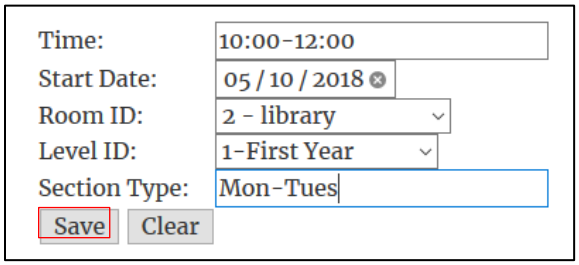


Fig (14.1.1)

After Testing

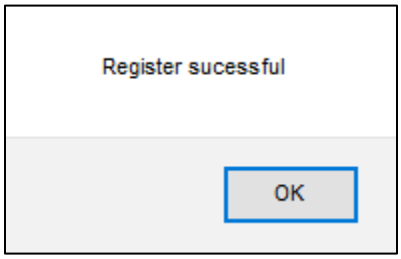


Fig (14.1.2)

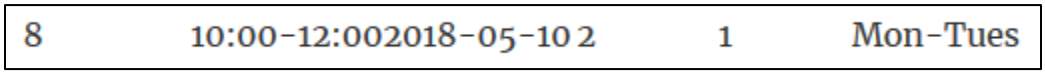


Fig (14.1.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
14.2	Same Room ID is chosen in the form.	Choose Room ID 1-practical room.	Already exists message will appear.	See Fig 14.2.1, and 14.2.2

Before Testing

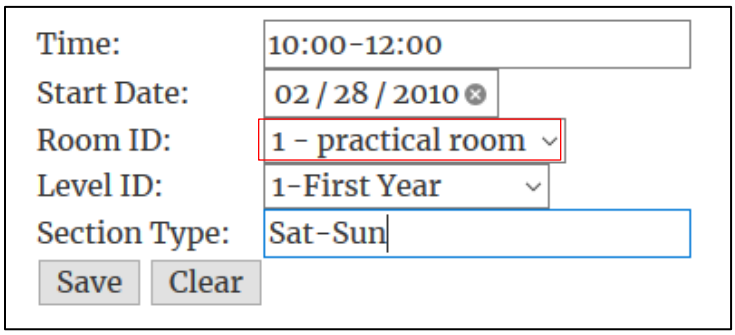


Fig (14.2.1)

After Testing

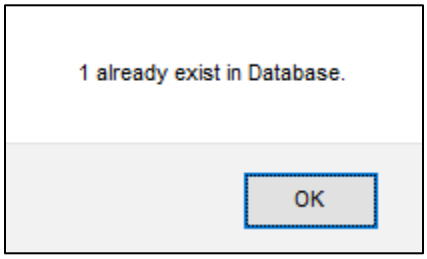


Fig (14.2.2)

Unit Test 15		Test Case: Data entry for section update.	Designed by: THUN SU NYI NYI	
Data Source: Section Update Form		Objective: To check whether time can be changed from Section Update	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
15.1	Time is changed.	Write 7:00-2:00 in Time text box.	Message appears.	See Fig 15.1.1, 15.1.2, and 15.1.3

Before Testing

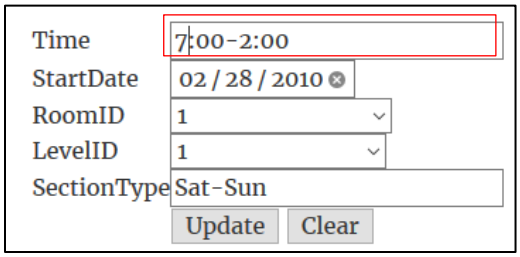


Fig (15.1.1)

After Testing

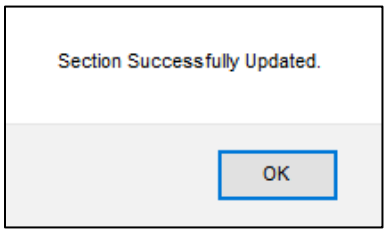


Fig (15.1.2)

Fig (15.1.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
15.2	Start Date is changed.	Write 2012-09-12 in the text box.	Successfully updated message will appear.	See Fig 15.2.1, 15.2.2, and 15.2.3

Before Testing

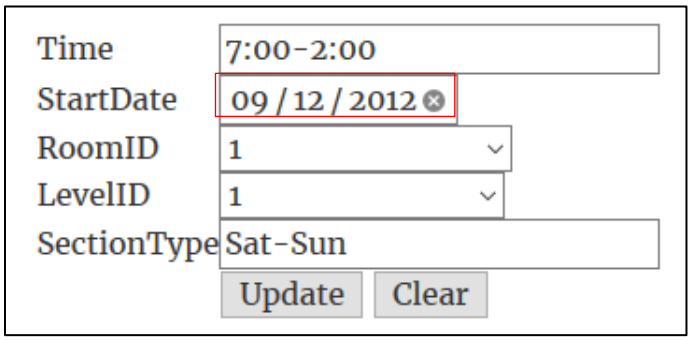


Fig (15.2.1)

After Testing

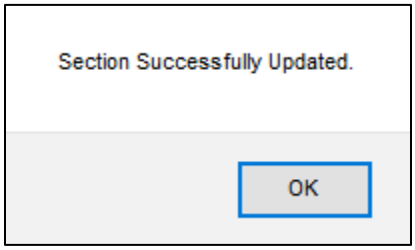


Fig (15.2.2)

Fig (15.2.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
15.3	Level ID is changed.	Choose from the combo box.	Successfully updated message will appear.	See Fig 15.3.1, 15.3.2, and 15.3.3

Before Testing

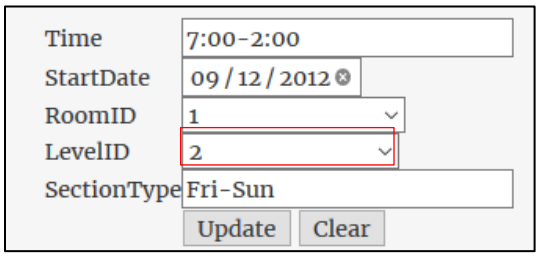


Fig (15.3.1)

After Testing

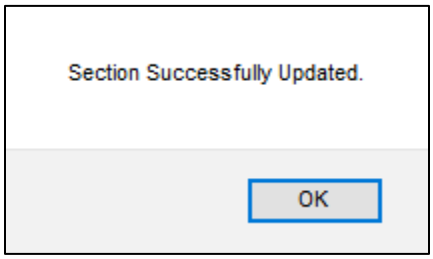


Fig (15.3.2)

Fig (15.3.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
15.4	Section Type is changed.	Write Fri-Sun in the text box.	Successfully updated message will appear.	See Fig 15.4.1, 15.4.2, and 15.4.3

Before Testing

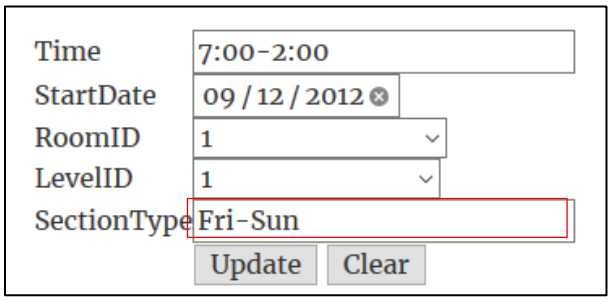


Fig (15.4.1)

After Testing

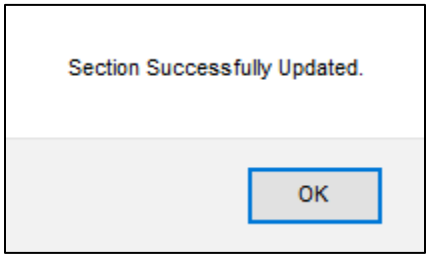


Fig (15.4.2)

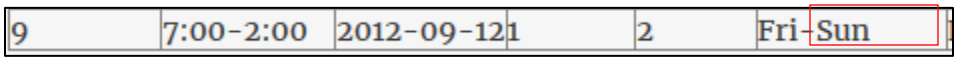


Fig (15.4.3)

Unit Test 16		Test Case: Entry to view Section List.	Designed by: THUN SU NYI NYI	
Data Source: Section List		Objective: To check whether sections input in Section Register is found in Section List.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
16.1	Section information is filled in Section Register form	Fill in all the text boxes in Section Register form.	Message appears.	See Fig 16.1.1, 16.1.2, and 16.1.3

Before Testing

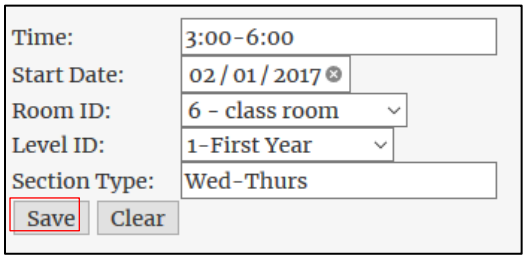


Fig (16.1.1)

After Testing

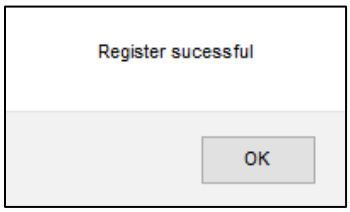


Fig (16.1.2)

Fig (16.1.3)

Unit Test 17		Test Case: Entry to delete section data.	Designed by: THUN SU NYI NYI	
Data Source: Section Delete Form		Objective: To delete section from the database.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
17.1	Section is deleted from Section List.	Click Delete button in Section List in Section Register.	Message appears.	See Fig 17.1.1, 17.1.2, and 17.1.3

Before Testing

Fig (17.1.1)

After Testing

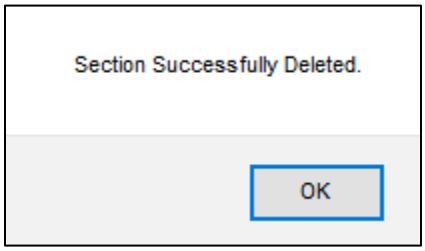


Fig (17.1.2)

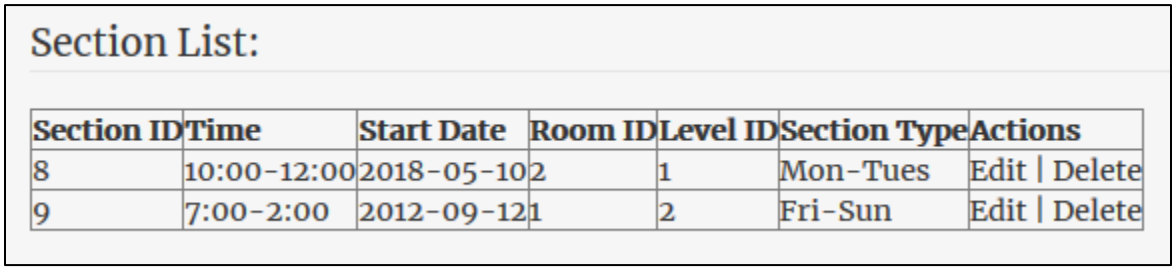


Fig (17.1.3)

Unit Test 18		Test Case: Entry to input room data into the database.	Designed by: THUN SU NYI NYI	
Data Source: Room Register Form		Objective: To check whether rooms can be input by filling in the Room Register form.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
18.1	Room information is filled in Room Register form.	Fill in all the text boxes in Room Register form.	Message appears.	See Fig 18.1.1, 18.1.2, and 18.1.3

Before Testing

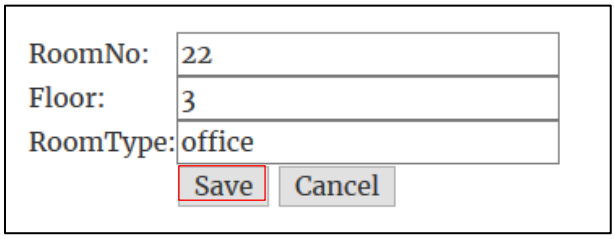


Fig (18.1.1)

After Testing

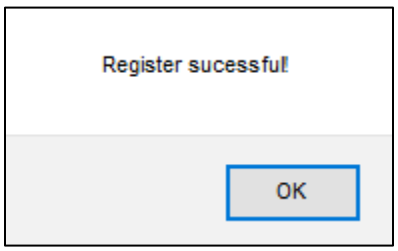


Fig (18.1.2)

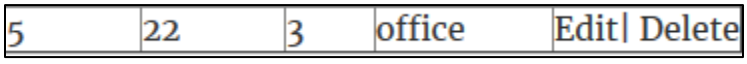


Fig (18.1.3)

Unit Test 19		Test Case: Entry to edit room data.	Designed by: THUN SU NYI NYI	
Data Source: Room Update Form		Objective: To test whether rooms can be updated in the Room Update form.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
19.1	String is written into Room No text box.	Write two in the text box.	Data will be zero in the Room List.	See Fig 19.1.1, 19.1.2, and 19.1.3

Before Testing

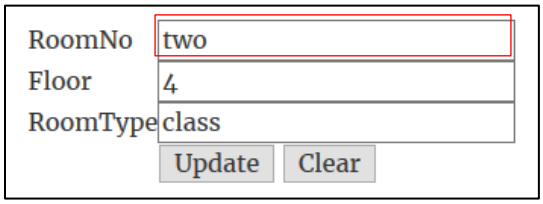


Fig (19.1.1)

After Testing

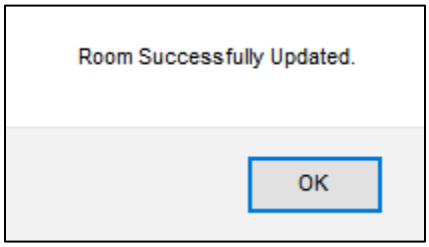


Fig (19.1.2)

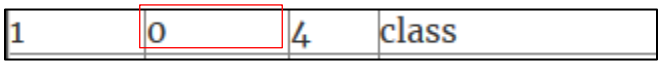


Fig (19.1.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
19.2	Floor is changed.	Write 2 in the text box.	Message will appear.	See Fig 19.2.1,19.2.2, and 19.2.3

Before Testing

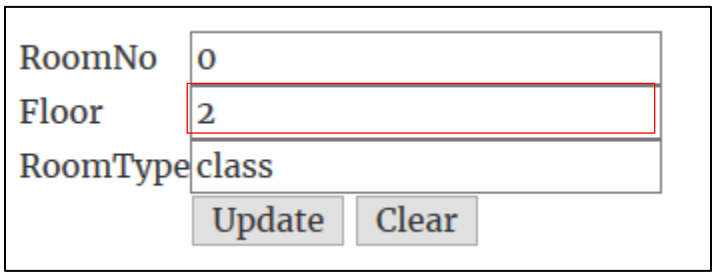


Fig (19.2.1)

After Testing

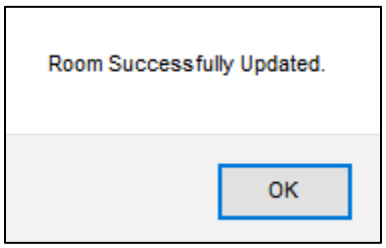


Fig (19.2.2)

Fig (19.2.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
19.3	Room Type is changed.	Change class to practical room.	Message will appear.	See Fig 19.3.1, 19.3.2, and 19.3.3

Before Testing

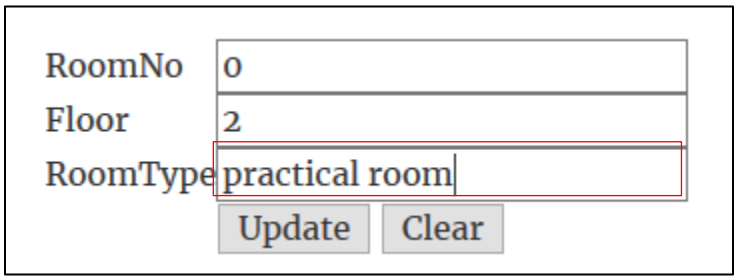


Fig (19.3.1)

After Testing

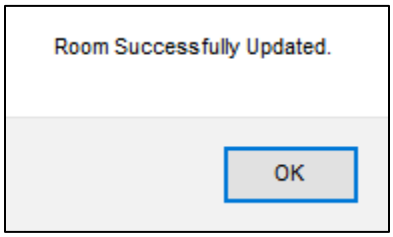


Fig (19.3.2)

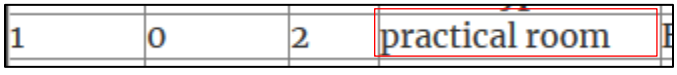


Fig (19.3.3)

Unit Test 20		Test Case: Entry to view Room data	Designed by: THUN SU NYI NYI	
Data Source: Room List		Objective: To check room data can be viewed in room list.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
20.1	Room data is filled.	Insert data into room register form.	Data will appear in the room list.	See Fig 20.1.1, 20.1.2, and 20.1.3

Before Testing

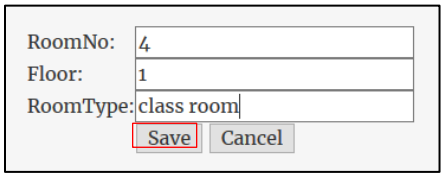


Fig (20.1.1)

After Testing

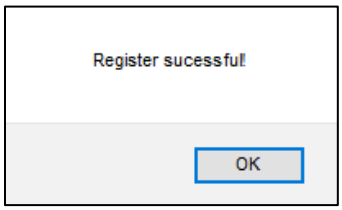
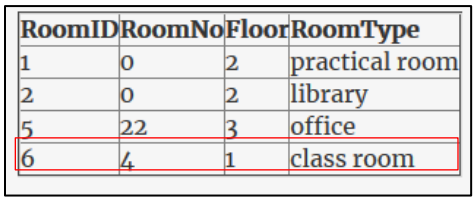


Fig (20. 1.2)



RoomID	RoomNo	Floor	RoomType
1	0	2	practical room
2	0	2	library
5	22	3	office
6	4	1	class room

Fig (20.1.3)

Unit Test 21		Test Case: Entry to delete data.	Designed by: THUN SU NYI NYI	
Data Source: Room Delete Form		Objective: To test whether rooms can be deleted by the delete button in Room List.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
21.1	Room data is deleted.	Click on delete button under Actions column.	Message will appear.	See Fig 21.1.1, 21.1.2, and 21.1.3

Before Testing

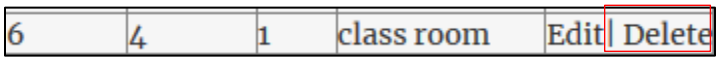


Fig (21.1.1)

After Testing

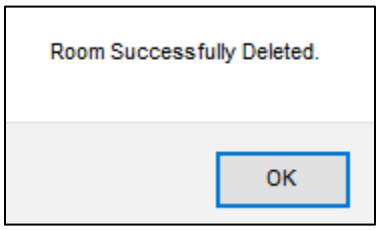


Fig (21.1.2)

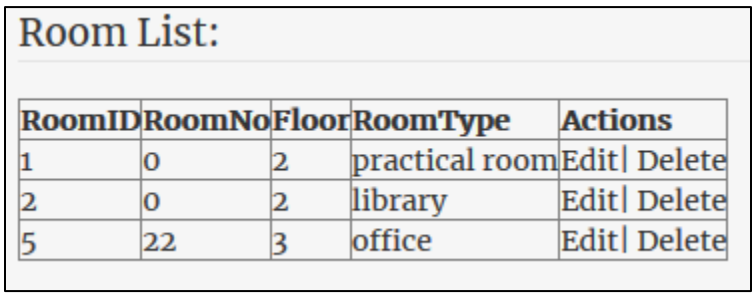


Fig (21.1.3)

Unit Test 22		Test Case: Entry to input Level data.	Designed by: THUN SU NYI NYI	
Data Source: Level Register form		Objective: To insert the level data into the database.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
22.1	Information is inserted in level form.	Fill in all the text boxes of level register form.	Message will appear.	See Fig 22.1.1, 22.1.2, and 22.1.3

Before Testing

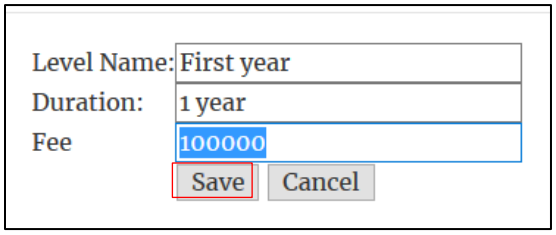


Fig (22.1.1)

After Testing

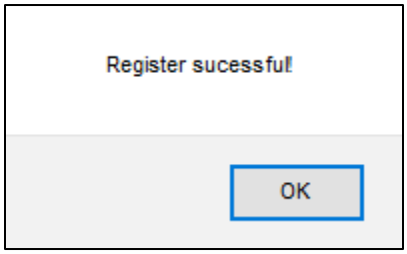


Fig (22.1.2)

Fig (22.1.3)

Unit Test 23		Test Case: To update Level data.	Designed by: THUN SU NYI NYI	
Data Source: Level Update form		Objective: To edit the level data into the database.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
23.1	Level name is changed.	Change level name to Second Year.	Message will appear.	See Fig 23.1.1, 23.1.2, and 23.1.3

Before Testing

Fig (23.1.1)

After Testing

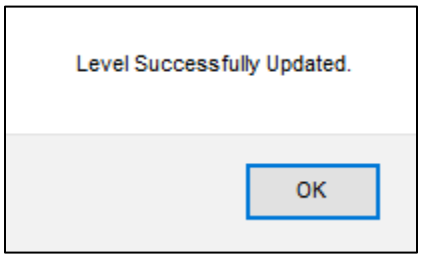


Fig (23.1. 2)

Fig (23.1.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
23.2	Duration is changed.	Change duration to one and a half years.	Message will appear.	See Fig 23.2.1, 23.2.2, and 23.2.3

Before Testing

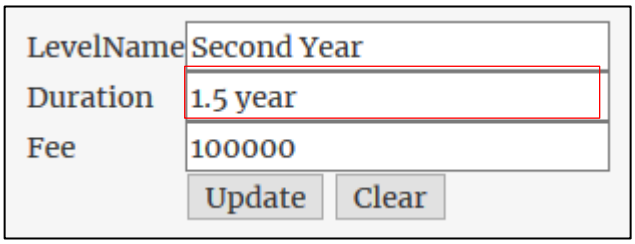


Fig (23.2.1)

After Testing

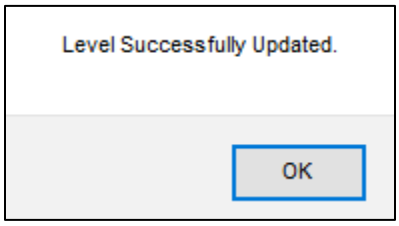


Fig (23.2.2)

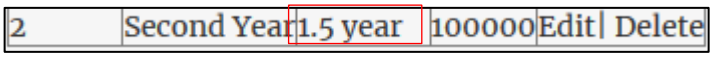


Fig (23.2.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
23.3	Fee data is changed.	Input 4500000 in the fee text box.	Message will appear.	See Fig 23.3.1, 23.3.2, and 23.3.3

Before Testing

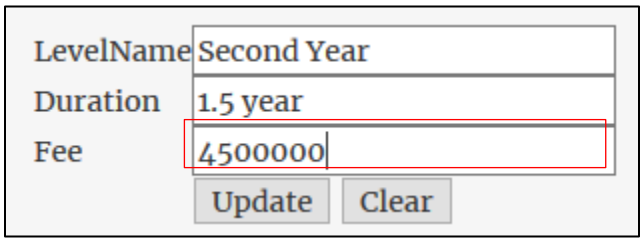


Fig (23.3.1)

After Testing

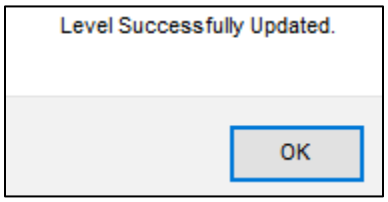


Fig (23.3.2)

Fig (23.3.3)

Unit Test 24		Test Case: Entry to delete Level data.	Designed by: THUN SU NYI NYI	
Data Source: Level Delete form		Objective: To delete the level data from the database.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
24.1	Level data is deleted.	Click Delete button under Actions column.	Message will appear.	See Fig 24.1.1, 24.1.2, and 24.1.3

Before Testing

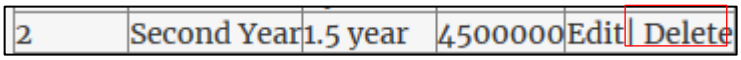


Fig (24.1.1)

After Testing

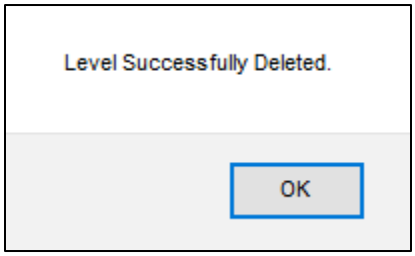


Fig (24.1.2)

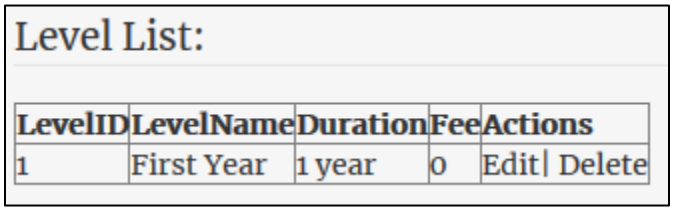


Fig (24.1.3)

Unit Test 25		Test Case: Entry to view Level data.	Designed by: THUN SU NYI NYI	
Data Source: Level List		Objective: To view all the level list	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
25.1	Level data is filled in the form.	Fill in the level register form. View the level list.	Data will be found in the level list.	See Fig 25.1.1, 25.1.2, and 25.1.3

Before Testing

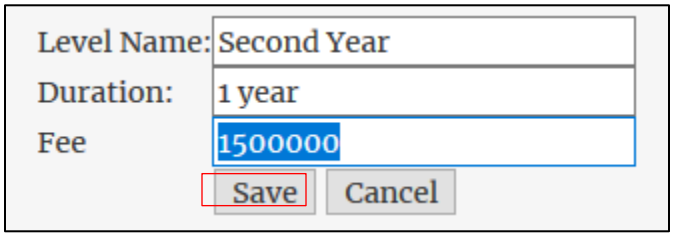


Fig (25.1.1)

After Testing

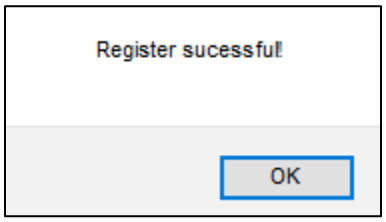


Fig (25.1.2)

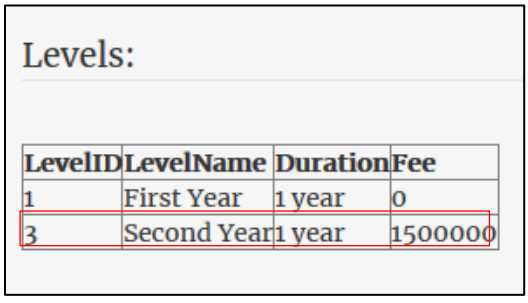


Fig (25.1.3)

Unit Test 26		Test Case: Entry to input course.	Designed by: THUN SU NYI NYI	
Data Source: Course Register Form		Objective: To input the courses into database.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
26.1	Course information is inserted.	Fill in all the text boxes in course register form.	Message will appear.	See Fig 26.1.1, 26.1.2, and 26.1.3

Before Testing

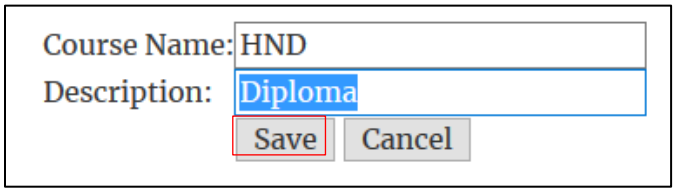


Fig (26.1.1)

After Testing

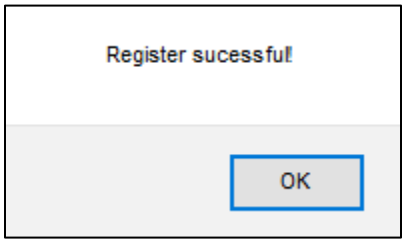
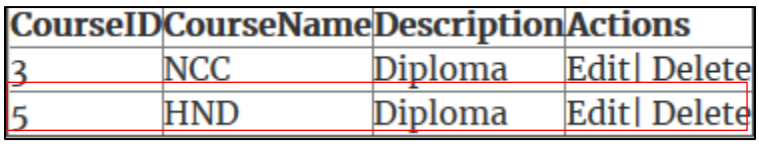


Fig (26.1.2)



CourseID	CourseName	Description	Actions
3	NCC	Diploma	Edit| Delete
5	HND	Diploma	Edit| Delete

Fig (26.1.3)

Unit Test 27		Test Case: Entry to update course.	Designed by: THUN SU NYI NYI	
Data Source: Course Update Form		Objective: To update the courses into database.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
27.1	Course Name is changed.	Course Name is changed to L4DC.	Message will appear.	See Fig 27.1.1, 27.1.2, and 27.1.3

Before Testing

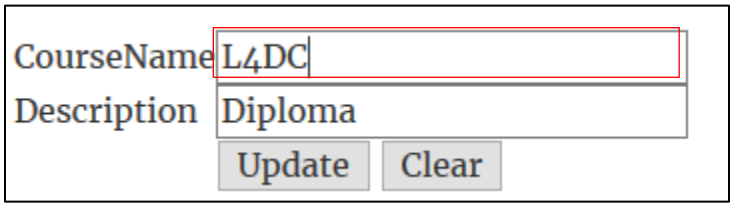


Fig (27.1.1)

After Testing

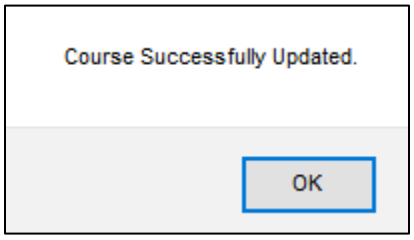


Fig (27.1.2)

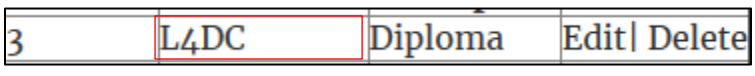


Fig (27.1.3)

Test Case	Description	Test Procedure	Expected Result	Actual Result
27.2	Description is changed.	Change to Diploma course.	Message will appear.	See Fig 27.2.1, 27.2.2, and 27.2.3

Before Testing

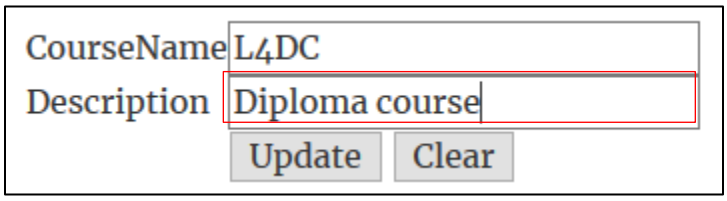


Fig (27.2.1)

After Testing

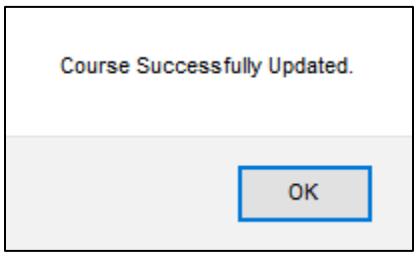


Fig (27.2.2)

Fig (27.2.3)

Unit Test 28		Test Case: Entry to delete course.	Designed by: THUN SU NYI NYI	
Data Source: Course Delete Form		Objective: To delete the courses from database.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
28.1	Course Name is deleted.	Click on Delete under Actions column.	Message will appear.	See Fig 28.1.1, 28.1.2, and 28.1.3

Before Testing

Fig (28.1.1)

After Testing

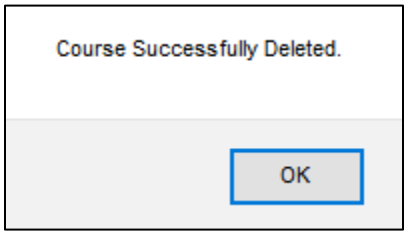


Fig (28.1.2)

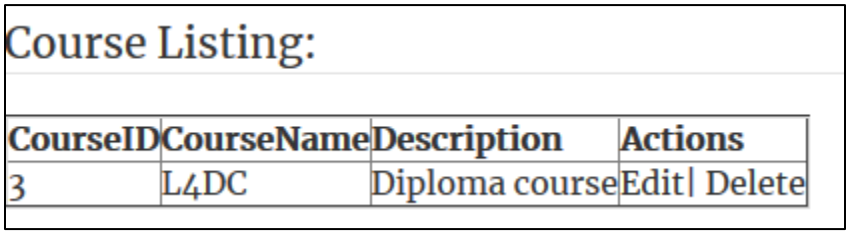


Fig (28.1.3)

Unit Test 29		Test Case: Entry to view course data.	Designed by: THUN SU NYI NYI	
Data Source: Course List		Objective: To view course list.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
29.1	All the text box in course register is filled.	Fill in all the course register form.	Data will appear in Course List.	See Fig 29.1.1, 29.1.2, and 29.1.3

Before Testing

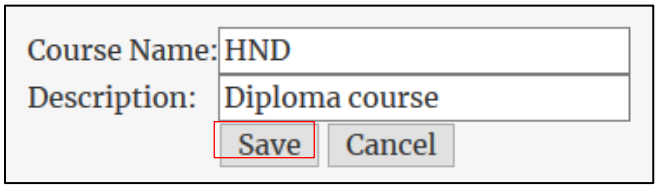


Fig (29.1.1)

After Testing

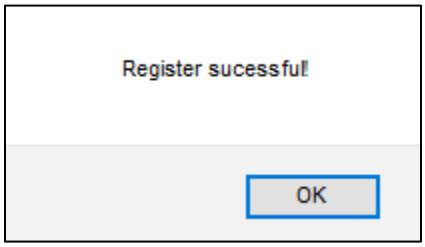
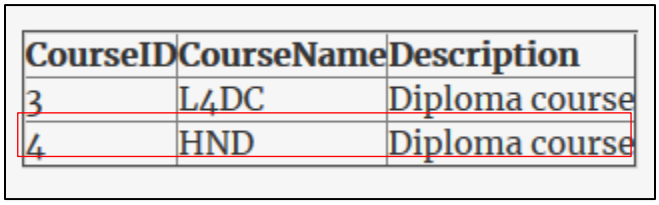


Fig (29.1.2)



CourseID	CourseName	Description
3	L4DC	Diploma course
4	HND	Diploma course

Fig (29.1.3)

Unit Test 30		Test Case: Entry to insert attendance.	Designed by: THUN SU NYI NYI	
Data Source: Attendance		Objective: To record students' presence and absence at school.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
30.1	Class is chosen, and tick is placed under the present, and absent.	Select class. Then, tick on 'Present' or 'Absent' beside student's name, and age. Then, click 'Save Record'.	Data is saved in the database.	See Fig 30.1.1, 30.1.2, and 30.1.3

Before Testing

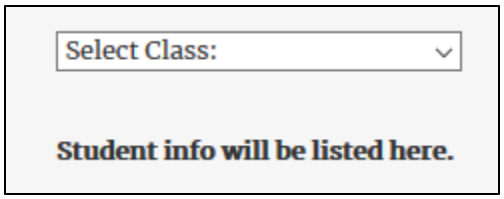


Fig (30.1.1)

After Testing

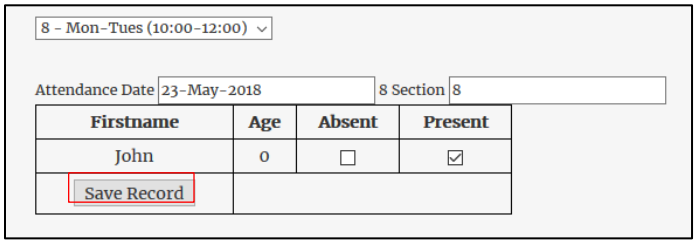


Fig (30.1.2)

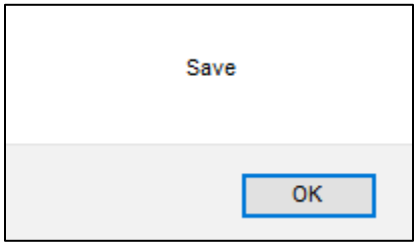


Fig (30.1.3)

Unit Test 31		Test Case: Entry to view course details.	Designed by: THUN SU NYI NYI	
Data Source: View List		Objective: To test whether students can see the view list.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
31.1	View List is available by clicking Open Date in the course table.	Login or signup, then course list page is reached. Click on the Open Date to view each course's details.	Message appears.	See Fig 31.1.1, 31.1.2, 31.1.3, and 31.1.4

Before Testing

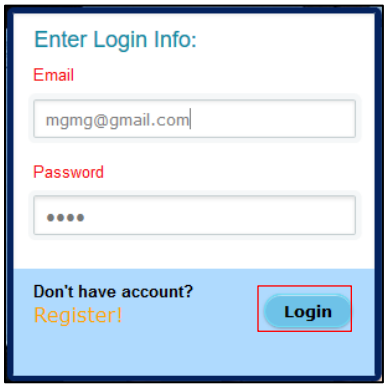


Fig (31.1.1)

After Testing

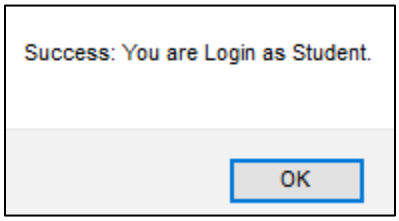


Fig (31.1.2)

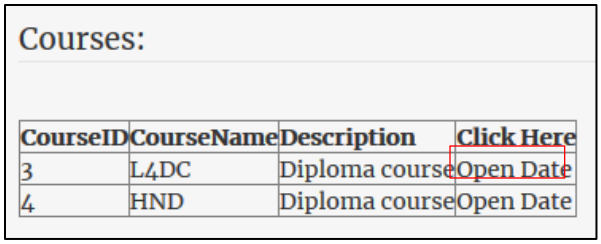


Fig (31.1.3)

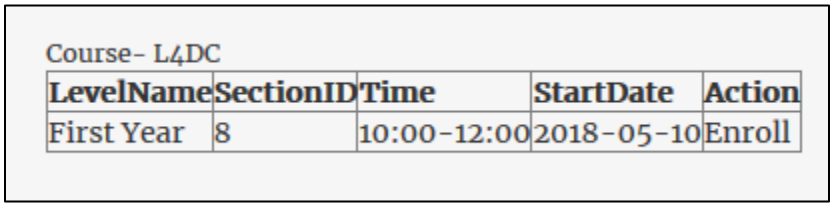


Fig (31.1.4)

Unit Test 32		Test Case: Entry to enroll.	Designed by: THUN SU NYI NYI	
Data Source: Enrolment form		Objective: To test whether admin can get into the enrolment without login.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
32.1	When getting into enrolment, please login message appears.	Message will appear when reaching enrolment form. Then, the admin will get to login page.	Message appears.	See Fig 32.1.1, 32.1.2

Before Testing

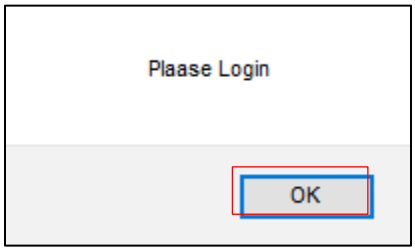


Fig (32.1.1)

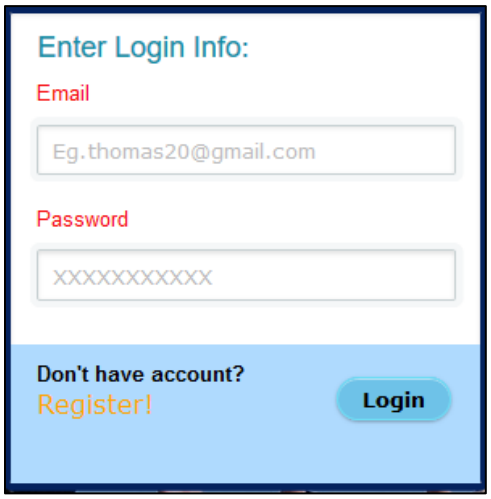


Fig (32.1.2)

Test Case	Description	Test Procedure	Expected Result	Actual Result
32.2	Students can enroll from the view list.	Click Enroll button.	Student will get to enrolment form. Enroll ID, Student ID, Level Name, and Section ID is already included in the enrolment form.	See Fig 32.2.1, and 32.2.2

Before Testing

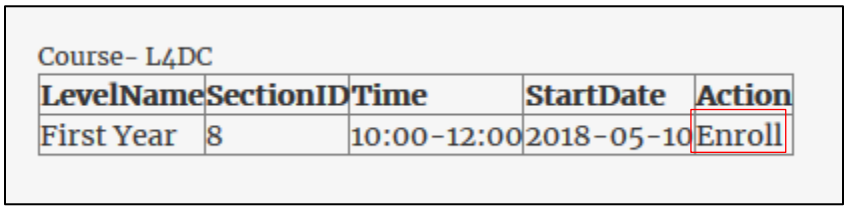


Fig (32.2.1)

After Testing

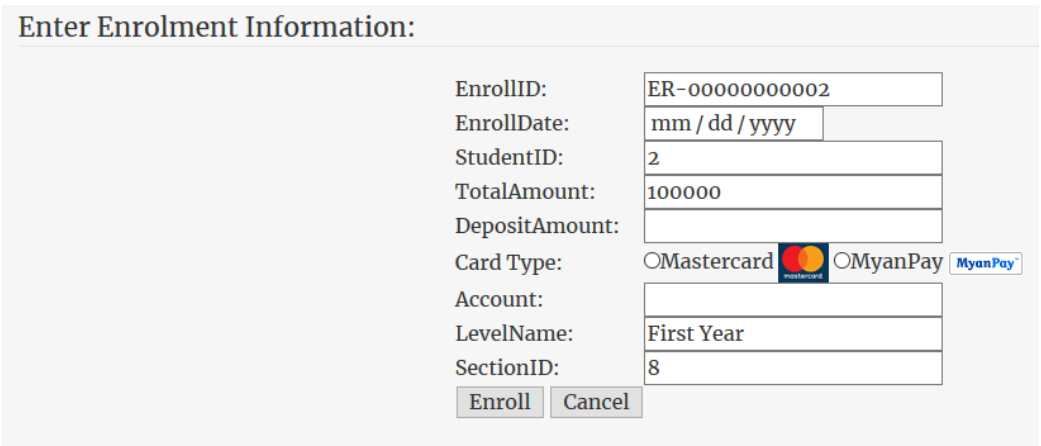


Fig (32.2.2)

Unit Test 33		Test Case: Entry to enroll.	Designed by: THUN SU NYI NYI	
Data Source: Enrolment List form		Objective: To tcheck whether enrolment data gets into enrolment list.	Tester: THUN SU NYI NYI	
Test Case	Description	Test Procedure	Expected Result	Actual Results
33.1	Enrolment is filled.	Student fill in the enrolment form.	Message appears. Data will be found in the Enrolment List.	See Fig 33.1.1, 33.1.2, and 33.1.3

Before Testing

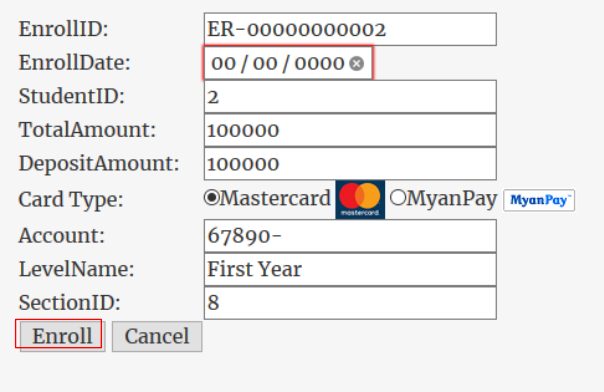


Fig (33.1.1)

After Testing

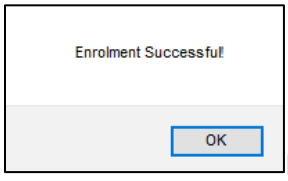


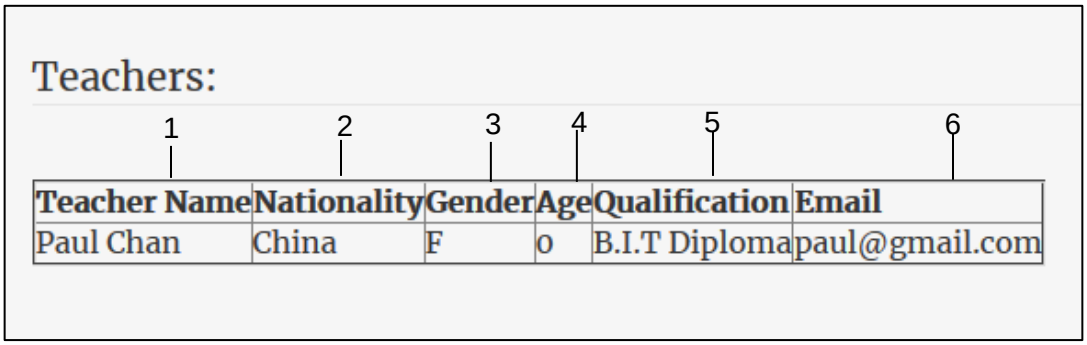
Fig (33.1.2)

EnrollID	EnrollDate	StudentID	TotalAmount	DepositAmount	CardType	Account	LevelName	SectionID	Action
ER-00000000001	0000-00-00	2	100000	100000	Mastercard	67890-	First Year	8	Delete

Fig (33.1.3)

User Guide

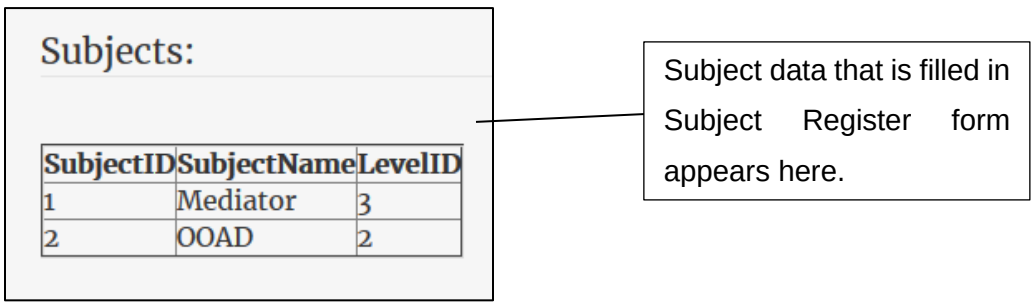
~Teacher List



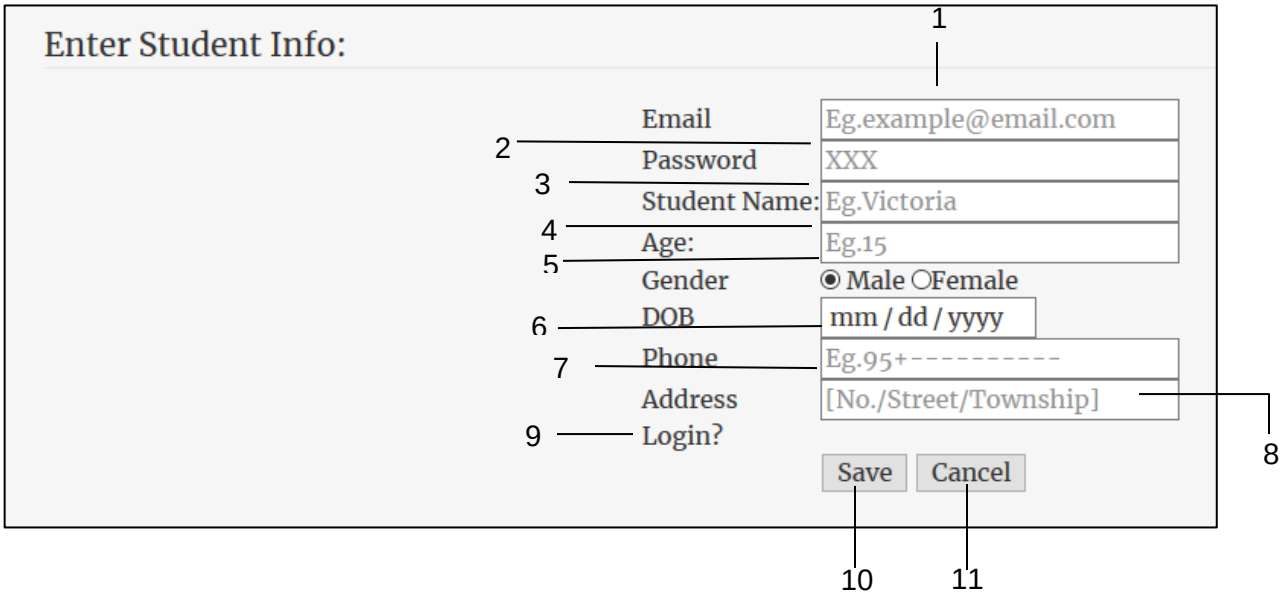
Key

1. Names appear here.
2. Nationality can be seen in the list.
3. Gender is saved as Boolean.
4. Age appears here.
5. Qualification is saved under this column.
6. Email input in Teacher Signup will appear here.

~Subject List



~Student Signup

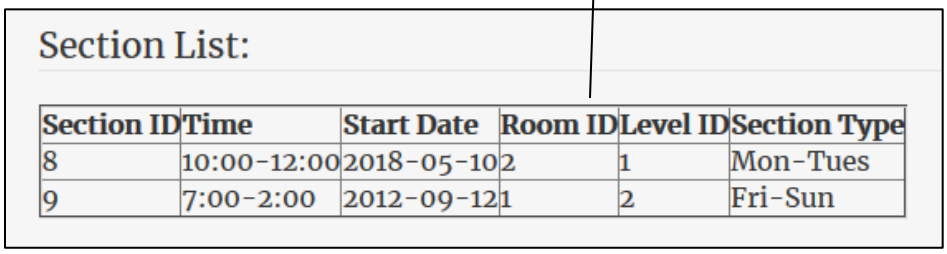


Key

1. Write your email address here.
2. Write your password.
3. Write your name.
4. Write your age in number.
5. Choose your gender.
6. Choose your date of birth in the calendar.
7. Write your phone number.
8. Write your address in the format of number, street, and township.
9. If you already have account, click Login?
10. Click ‘Save’ after filling all the text boxes.
11. Click ‘Cancel’ to delete what you have written in the form.

~Section List

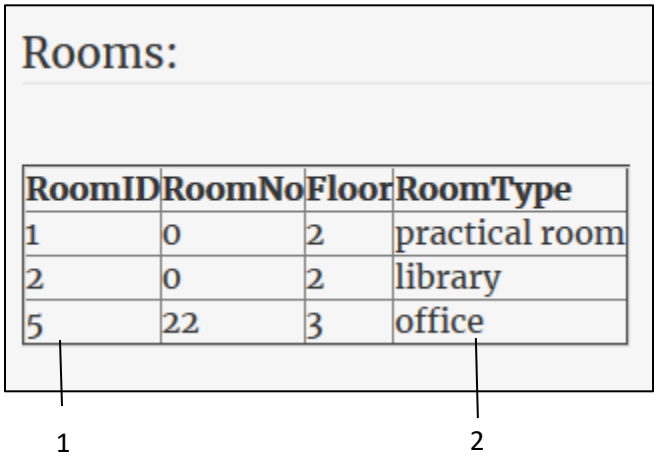
Data that are filled in Section Register appears here.



Section List:

Section ID	Time	Start Date	Room ID	Level ID	Section Type
8	10:00-12:00	2018-05-10	2	1	Mon-Tues
9	7:00-2:00	2012-09-12	1	2	Fri-Sun

~Room List



Rooms:

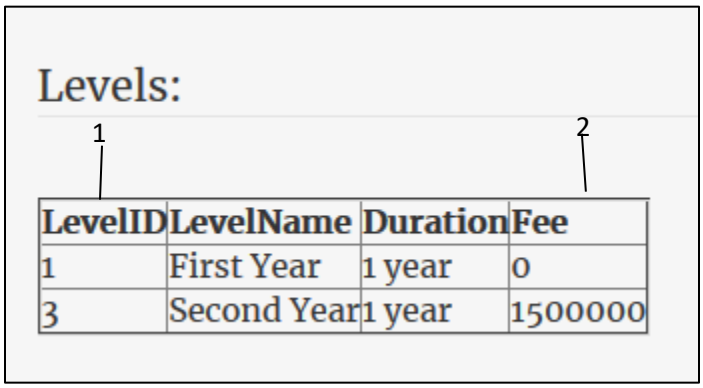
RoomID	RoomNo	Floor	RoomType
1	0	2	practical room
2	0	2	library
5	22	3	office

1 2

Key

1. Room ID is auto.
2. Data that are filled in room register form appears here.

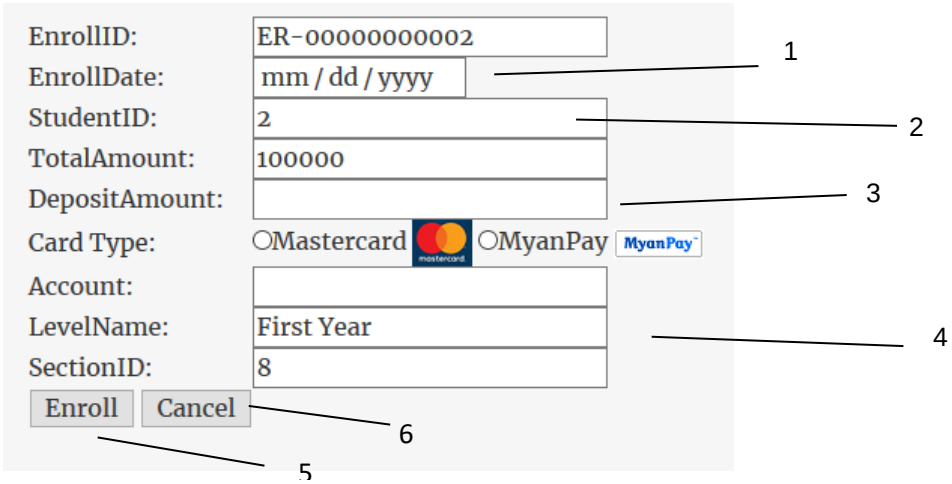
~Level List



Key

1. Level ID is auto ID.
2. Data that are saved in Level Register appears in the Level List.

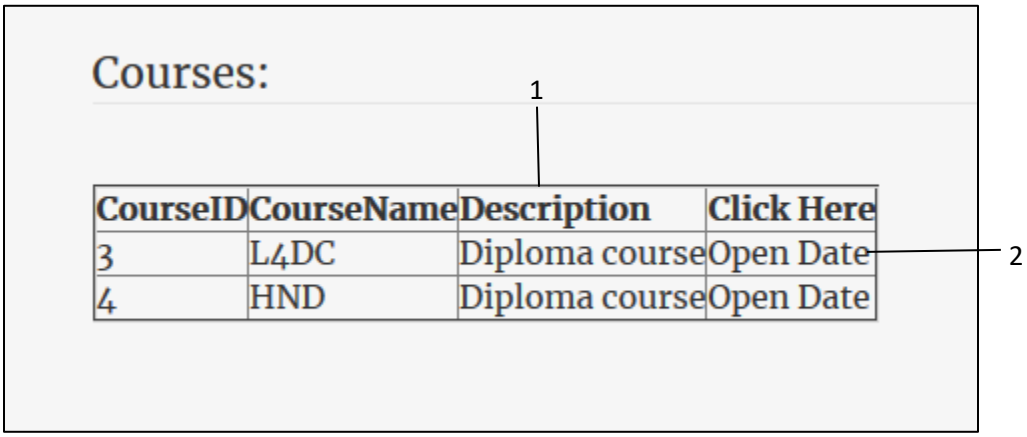
~Enrolment



Key

1. Pick the Enroll Date in the calendar.
2. Student ID is taken from the login.
3. Fill in the text boxes.
4. Level name and Section ID is automatically taken from the view list.
5. Click ‘Enroll’ to enroll for school.
6. Click ‘Cancel’ to cancel the enrolment.

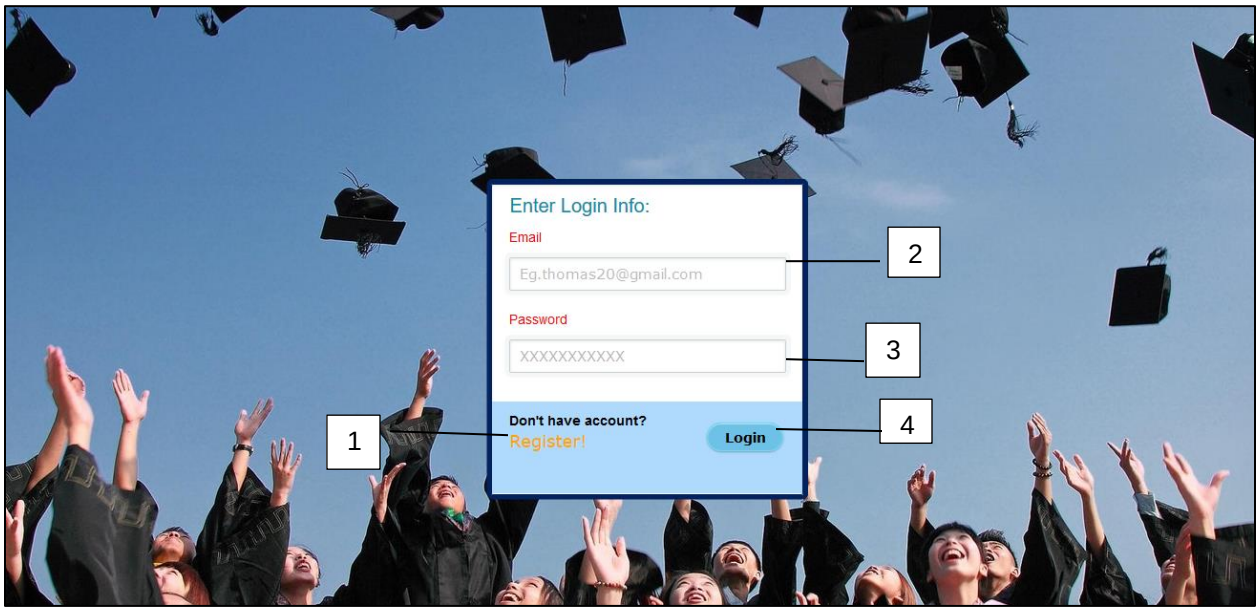
~Course List



Key

1. Coures data that are saved in course register form appears here.
2. Click here in each row if u want to know more about each courses.

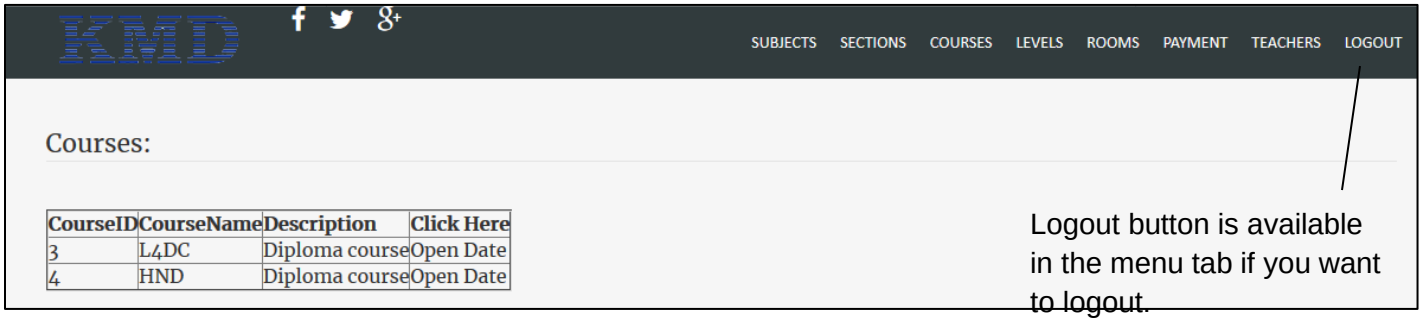
~Login



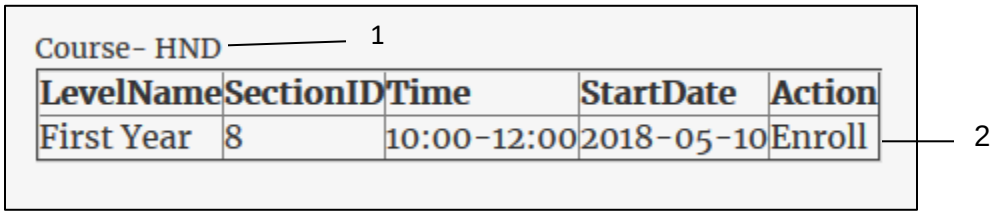
Key

1. Do not have account yet? Click here!
2. Write your email address here.
3. Write password here.
4. Click Login button to login.

~Logout



~View List



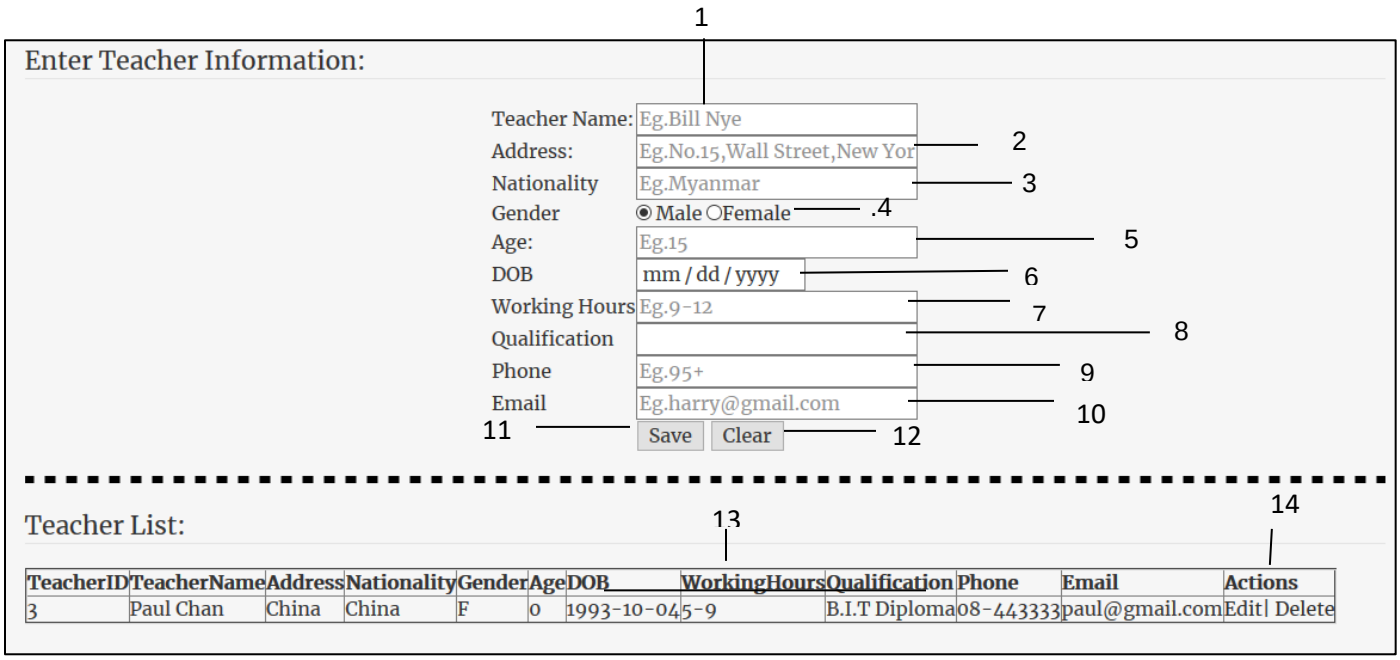
Key

1. Course Name from the course list appears here when the user clicked Open Date.

2. Click Enroll to enroll for the section.

Admin Guide

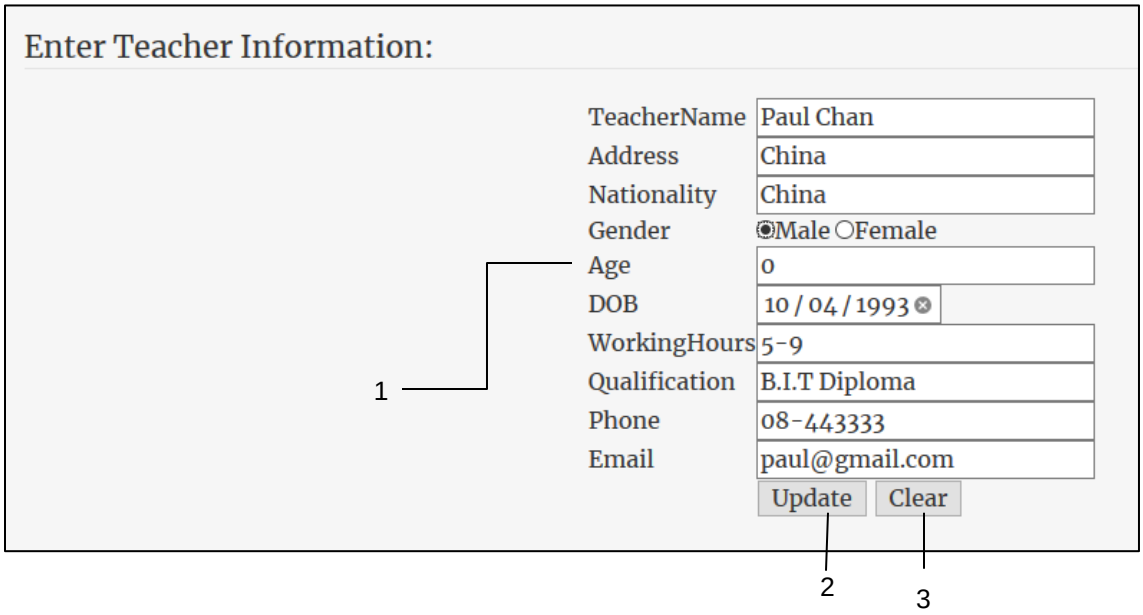
-Teacher Register



Key

1. Type teacher's name here.
2. Write address in the format of number, street, and city or country.
3. Write nationality here.
4. Choose gender.
5. Write age in integer values.
6. Choose date of birth in calendar.
7. Write working hours from start time to end time in integer.
8. Qualification is to be written here.
9. Write phone number here.
10. Type email here.
11. Click 'Save' button to save the information written in the form.
12. Click Clear to delete what you have written in the form.
13. Data that are saved appear in the teacher list.
14. Click under Action to edit or delete each rows of data.

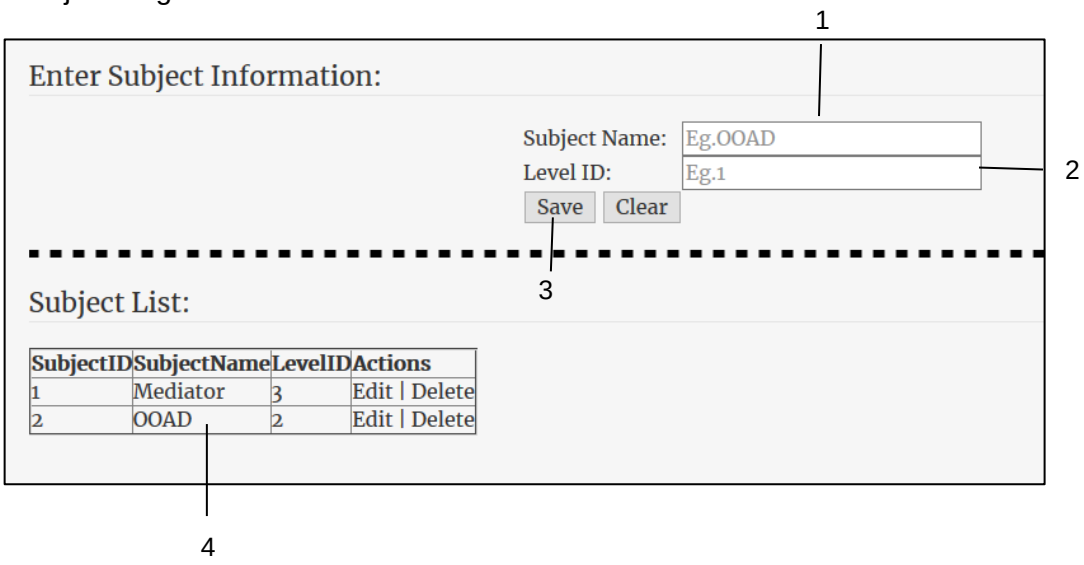
-Teacher Update



Key

1. To change the information, rewrite the data in the text boxes.
2. Click on ‘Update’ button to save the changed information.
3. Click ‘Clear’ to cancel the information written to get back the original information.

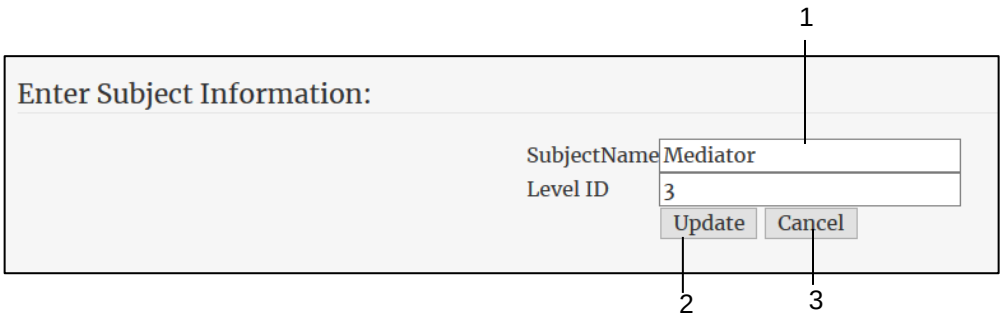
~Subject Register



Key

1. Insert new Subject name into the text box.
2. Write level ID into the text box.
3. Click ‘Save’ button to save the subject information.
4. Data you had entered appears in this subject list.

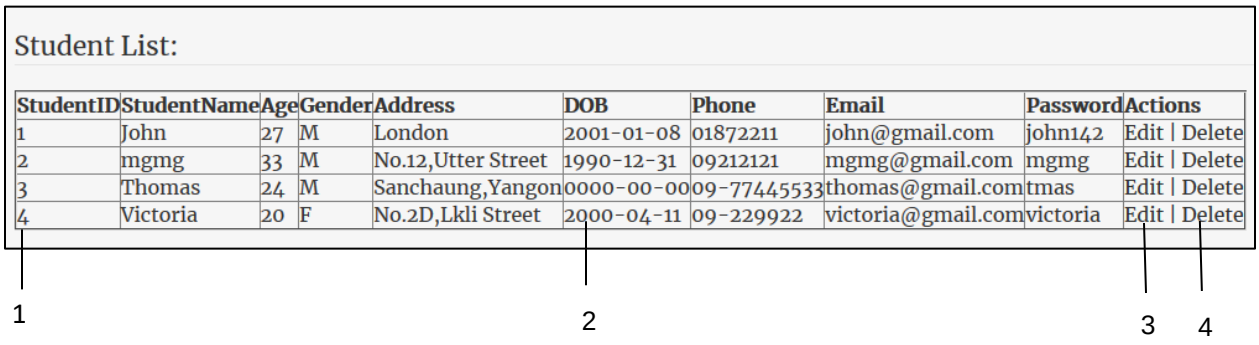
~Subject Update



Key

1. Change the subject data in the text boxes.
2. Click ‘Update’ button to change the data.
3. Click ‘Cancel’ button to cancel changes in data.

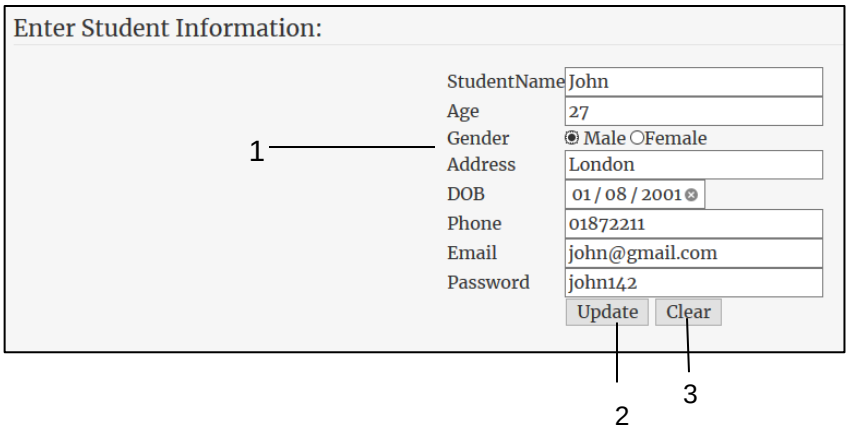
~Student List



Key

1. ID is auto.
2. Data that you input is shown here.
3. Click Edit to change the data.
4. Click Delete to delete the line of data.

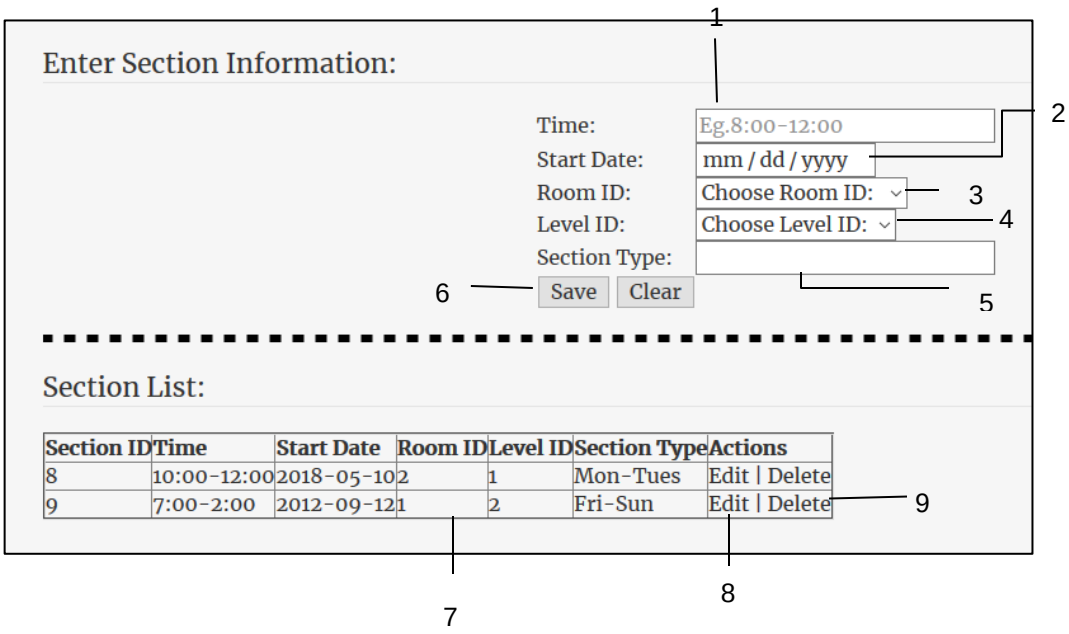
~Student Update



Key

1. Change the information in each text boxes.
2. Click ‘Update’ to save the changes.
3. Click ‘Clear’ to delete the changes.

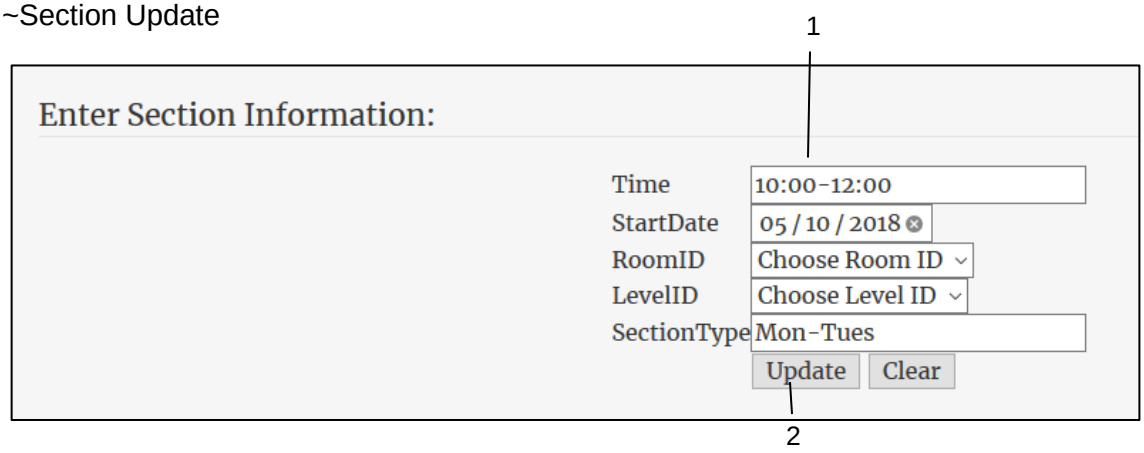
~Section Register



Key

1. Fill in section time.
2. Choose start date of section in calendar.
3. Choose Room ID.
4. Choose Level ID.
5. Fill in the section type.
6. Click ‘Save’ button after filling information.
7. Data filled in the form appears here.
8. Click Edit to change the data.
9. Click Delete button to delete the data.

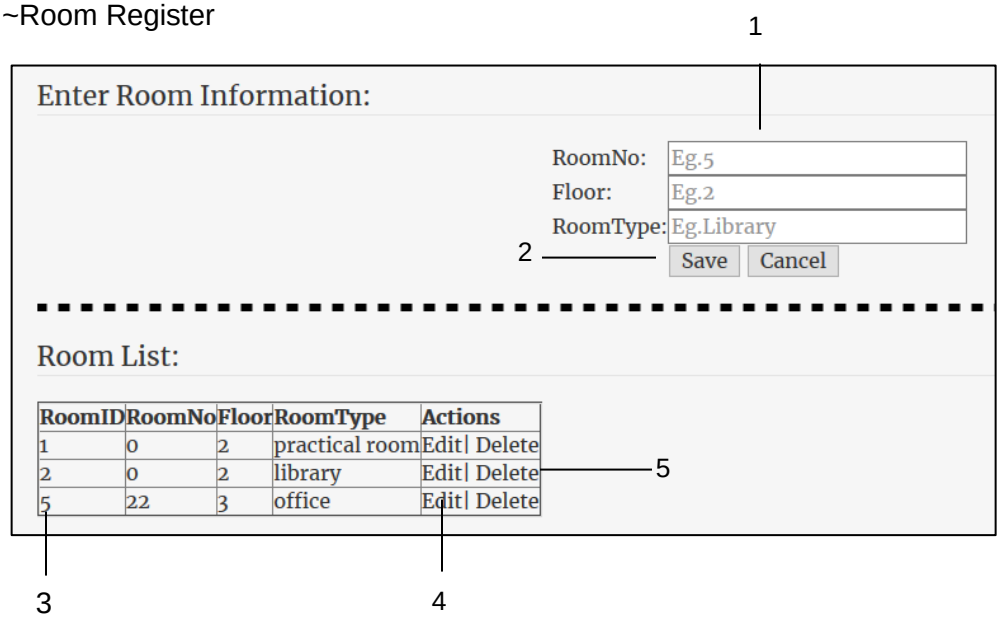
~Section Update



Key

1. Change the section information in the text boxes.
2. Click on 'Update' button to save the changes.

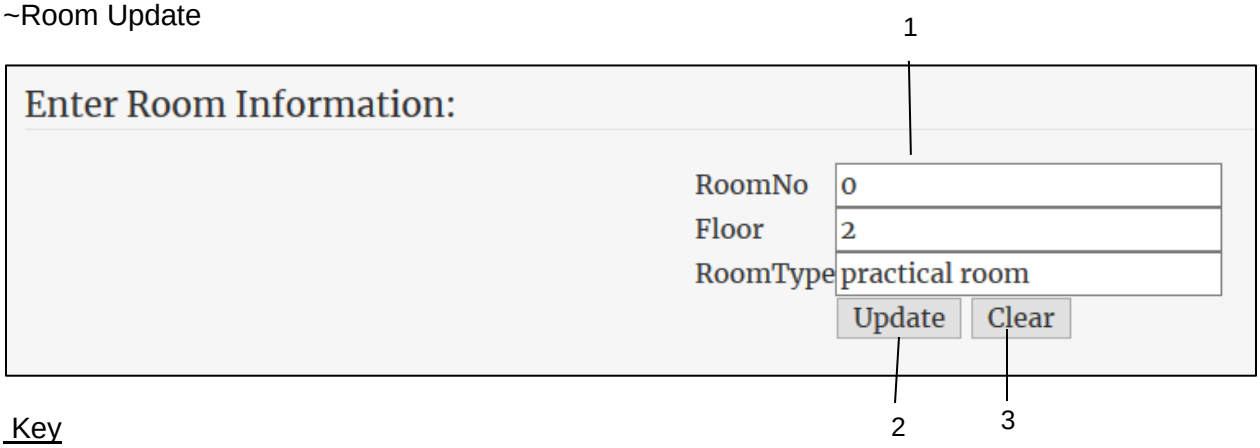
~Room Register



Key

1. Fill in the text boxes to input room data.
2. Click 'Save' to save room data.
3. Room ID is auto ID.
4. Click 'Edit' button to fix each data.
5. Click 'Delete' to delete the data.

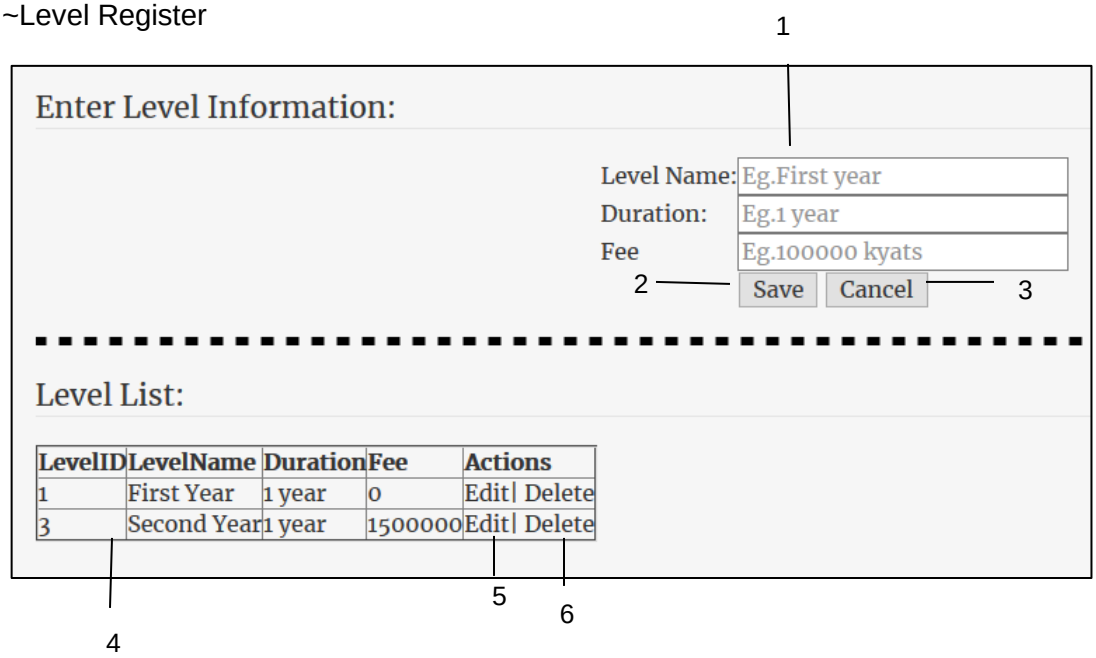
~Room Update



Key

1. To update, change the information in the text boxes.
2. Click ‘Update’ button to change the data.
3. Click ‘Clear’ to clear the data that is changed.

~Level Register



Key

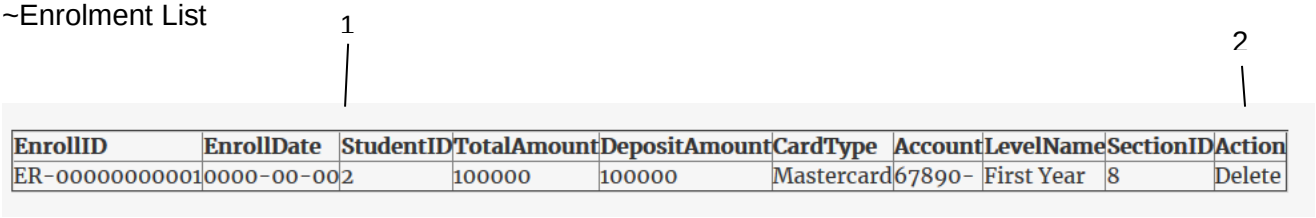
1. Fill in level data in the form.
2. Click ‘Save’ button to save the level data.
3. Click ‘Cancel’ to cancel the information.
4. Level data is shown here.
5. Click ‘Edit’ to change the level data.
6. Click ‘Delete’ button to delete the level data.

~Level Update

Key

1. Fill in the text boxes if you want to change the data.
2. Click ‘Update’ to change the data.
3. Click ‘Cancel’ to undo the changes.

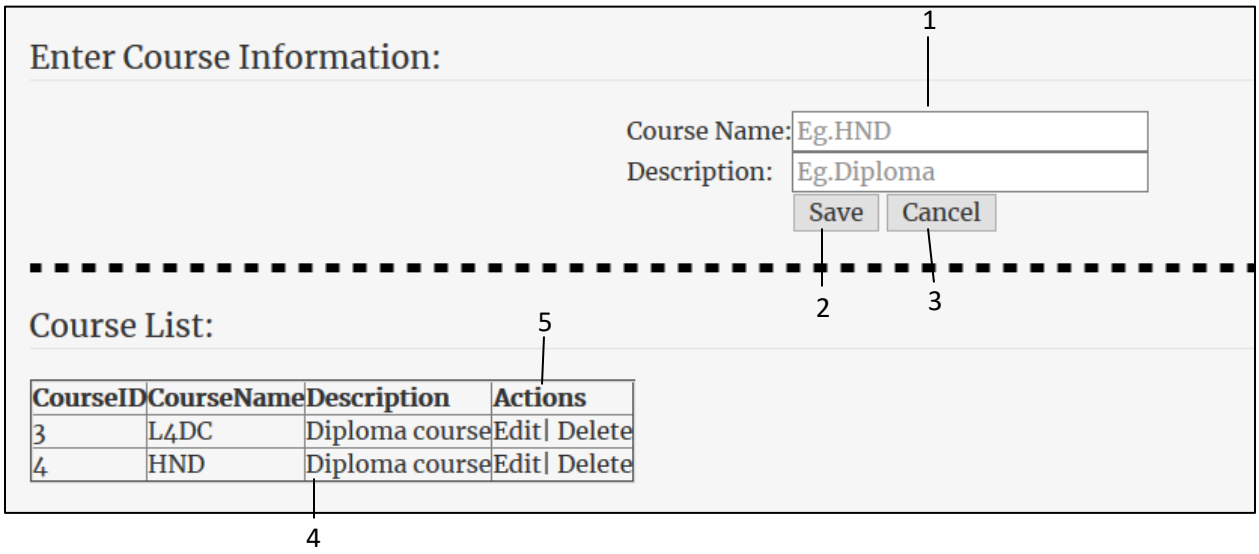
~Enrolment List



Key

1. Data input in Enrolment page can be seen in Enrolment List.
2. Click under action column to delete each rows of data.

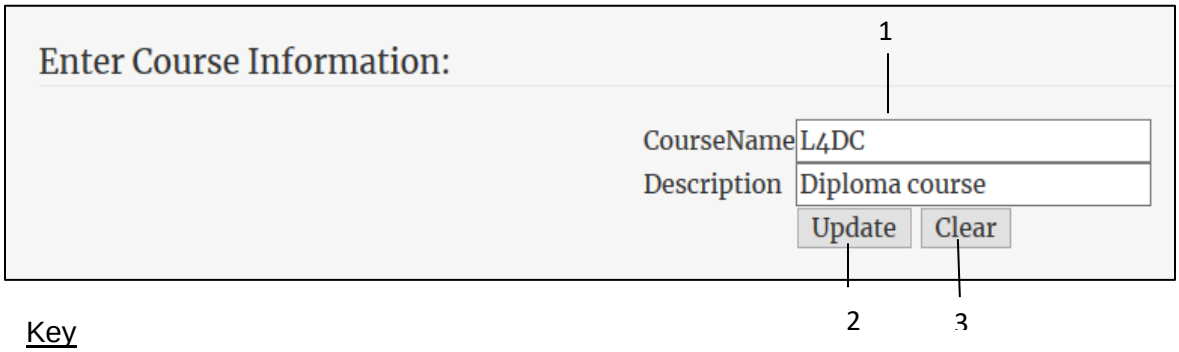
~Course Register



Key

1. Enter course data in the text boxes.
2. Click ‘Save’ button to save the data.
3. Click ‘Cancel’ button to cancel the course data.
4. Data saved in course form appears here.
5. Click under actions to edit or delete the rows of course data.

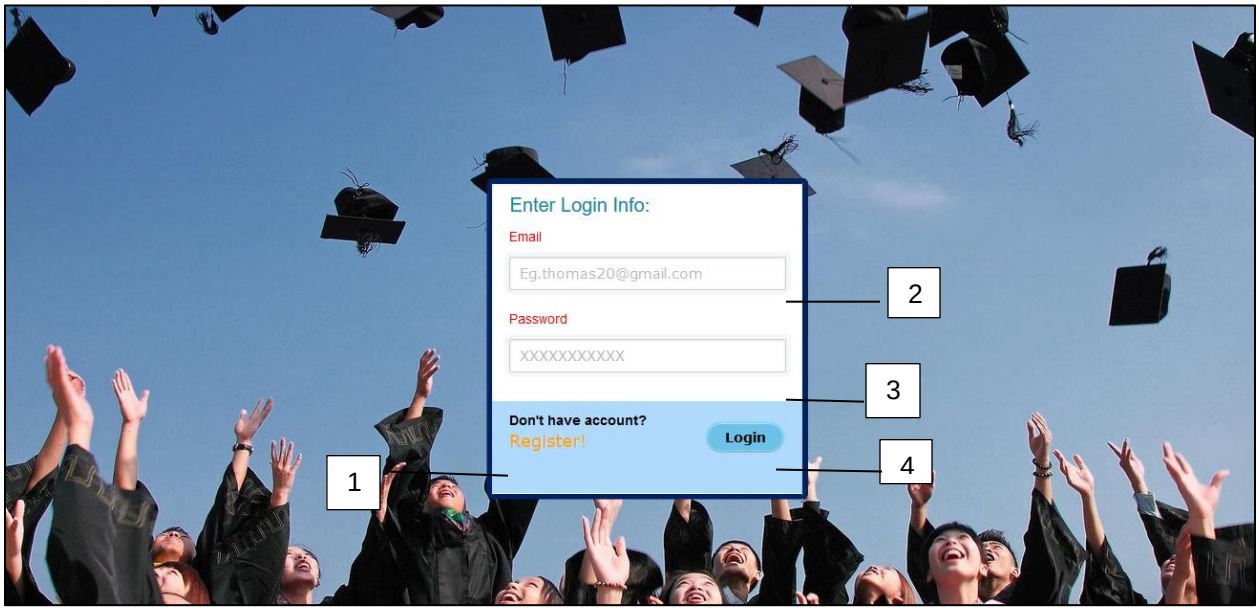
~Course Update



Key

1. Fill in the text boxes to update course data.
2. Click ‘Update’ to change the data.
3. Click ‘Clear’ to cancel the changes.

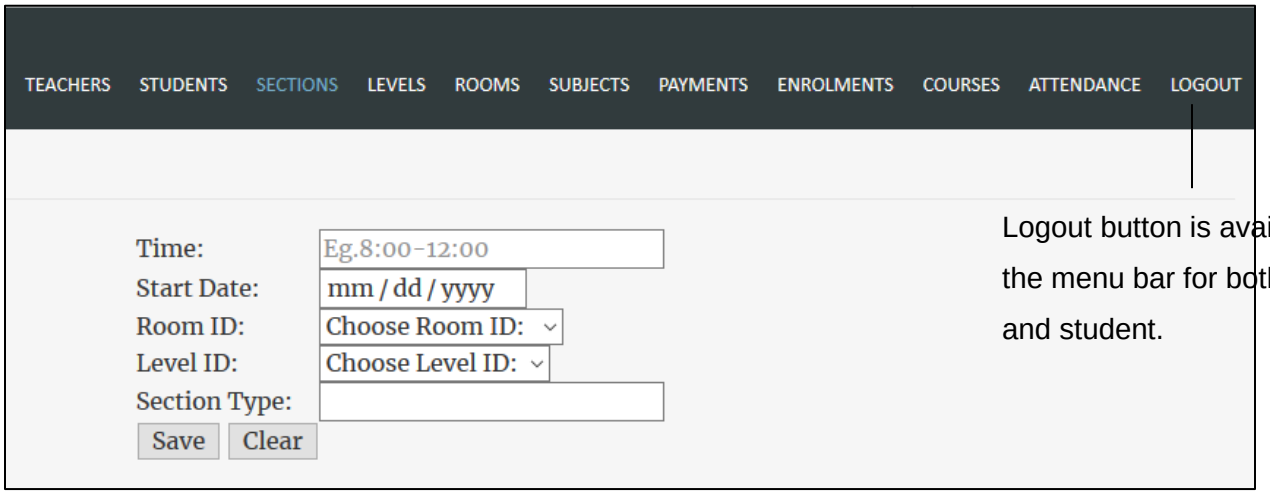
~Login



Key

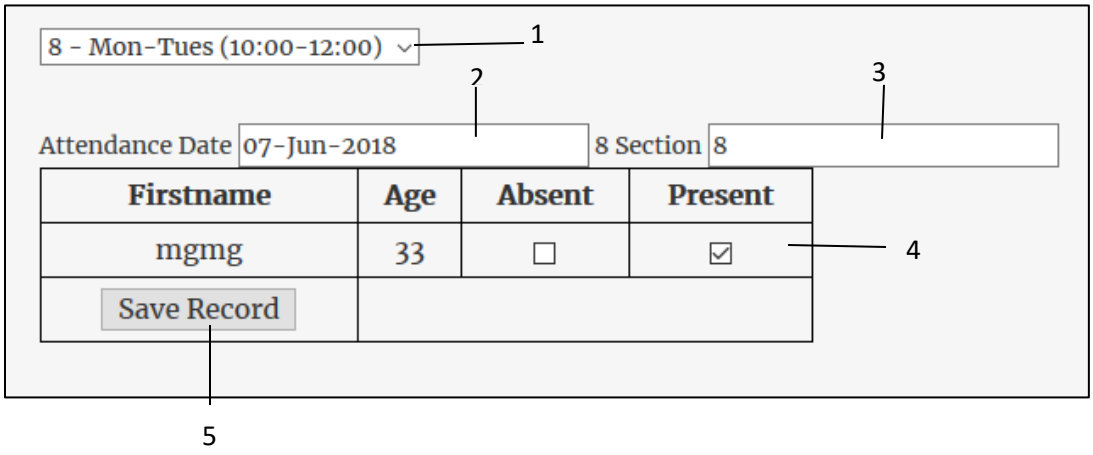
5. Do not have account yet? Click here!
6. Write your email address here.
7. Write password here.
8. Click Login button to login.

~Logout



Logout button is available on the menu bar for both admin and student.

~Attendance



Key

1. Section ID, Section type and time of each section can be chosen from this combo box.
2. Attendance Date can be written here.
3. Section ID is taken from the section data.
4. Place a tick in absent and present here.
5. Click save record to save the data.

System Code

Functions	Description
Edit	Edit button is to allow admin to fix the data of the classes.
Delete	Delete button is to delete the data rows.
Save	Save button allows the user to save data into the database.
Cancel	Cancel button is to cancel the information that are to be saved.
Login	Login button is to allow the users to log in by filling email and password.
Register	Register is available in login form for users who has not registered yet.