Web Development

Mingdao High School

School code – 051721

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2618 words

2020/3/31

Table of Contents

Introduction

If I were to find a subject that I like the most, I would say that I love computer programming. Because of my personal interest, and you can see from my title, I am exploring "Web Development" in my personal project. Why so? There are more than a lot of subjects you can choose to investigate in programming. Here, I will tell you why. A website is where, in current era, people gather, find, create new information. The world of the network connect billions of people and its expansion is unstoppable. My goal in this project is to learn and create a website system.

Criteria A - Investigating

Goal

My goal in this half-a-year time is to learn the skill of creating a website, and research deeply in the subject knowledges. Using professional skills to design the website system. Passion, enthusiasm that I have in this subject. In counting, this is my fifth year since I've learnt my first programming language. From that time, I have written over hundred to thousands of programs, this activity became my interest. Though web development is a further branch, but I can say that this goal highly related to my interest. Thus, I have to explore a brand new subject, without any help, trying to master and make instant application. What a highly challenging goal, in fact, my first time trying such a hard attempt.

Global Context

Internet, a familiar word for people born in the twenty first century, it is a massive web of servers connecting together. But, what was before it, How did the internet became so powerful? The Internet owns the feature of constant growth, it is always growing, always connecting to more people, always making different connections. I was pulled by this cool power that the internet brings. The internet minimizes the globe into a small village, where everybody knows each other, everyone is connected. In the same time, it has successfully complete this great task with no effect on the environment, reaching sustainability as one of its feature. I want to also discuss about the growth of the internet as I looks through my project, finding the shadows of "Globalization and Sustainability" that the internet continues to be for the past decades.

Subject knowledge

As you know, this is a subject about programming, so, coding skills must be a required experience. I have been coding for five years. I have learned Java, C, C++, Visual Basic, Visual Basic Application, Microsoft Specialist (Including Word, Excel, PowerPoint, Outlook, Access), robotics (First Robotic Competition, First Tech Challenge). Yet, I haven't learnt anything about web development. I am confident to say that I am a well experienced programmer, but, I am an infant in this new world. It is said that the concept in web development is unfamiliar, but I will be making my path to mastery.

Research

In the beginning of my research, I need to find a starting point where I reach and expand to more. Over constant thought, I came up with "What kind of skills and concepts are essential" as my start. From simple replies I get from the first site found on Google, I would

get a list of things. Secondarily, I would find the importance to the different things. Realizing that most structure of coding isn't familiar to me, I was kind of shocked. During coding website interfaces, html skill is the standard of all, later comes php, bootstrap, CSS as extra materials that enhances your beauty. But, aesthetics isn't my focus. I later found out, there is a type of website system that is code by java. I've decided since then, I would focus strictly on this branch.

After on, I dedicated most time on discovering concepts used in this type of system. There are several IDEs that can power this, but the most important is that I need to install java enterprise edition to start programming. "Enterprise" edition may seems like this is for large companies or businesses, but it actually means that it can be connected to the internet. Then I choose NetBeans as my IDE, which this is released by Oracle. After all hardware and software are prepared. I started to research on the real coding skills used within, but more importantly, the concept. From my research, I have come to realize that all website system can be separated into two relative relations, the server side and client side. Server side is where services are provide, and the client receives the outcome of the service. For example, login is a regular function found on websites, and here is how it works as a whole. The user keys in his/her account and password. The website sends the account and password to the server. The server request to see data from the database. The database returns the data requested. Then, the server returns to the website the validity of the input. Lastly, the website displays the result. A simple input and a button can be dissect into several steps. In fact, there are multiple programs running under to complete this process. I would consider the fluency during working on my product.

As addition, http is a regulation of how webpages communicate to each other. If the login page were to send the account and password to the server, the must be a coding of a "request" and "response". The two are specified words in the internet. There must be a

request to other webpage and a response back from it. To access these functions I need to find whether java supports this. Which, I came to find the API(Application programming interface) of java enterprise edition. Application programming interface is a list of defaults class, abstract class, methods underneath. I found that there are abstract classes, ServletRequest and ServletResponse, that has methods to do the work. Off course, I would need to make changes to the method to complete my goal.

Criteria B - Planning

Criteria

Because my product is a system, that comes without any statistical numbers that can be evaluate with a strict score, I have used certain standards that are levelled, such as that I consider preparing the IDE and starting an available project as poor in my criteria, able to make connections to database as excellent. There are different skills that I valued as simple, hard, or extreme. I have decide to see whether I have demonstrate these skills to evaluate my score.

But, there will be one problem, the hardness of skills are being decided in a subjective way, from me. So, I have another idea, I would list out certain skills that I have found and researched about, then evaluate my score by the number of skills I completed, so then, the score is numbered and objective.

Although this method above I able to create a number to make the evaluation more objective, but it won't be able to separate a complete work from a outstanding work. After all, I have to make subjective statements to evaluate my product.

Plan

I have separated my project into two major parts, the first being the research, the second being coding my product. Research, in my case, is a quite heavier work comparing to other types of project, because most research I'll have done and will do is more academic rather than aesthetic or creative. Pre-research is an essential process, but during work and coding, I need to continue doing research on deeper information. For example, I have researched how to request a number from database, then, I need to find what kind of code I need to write in the database to return the data, what if it is a picture instead of a number? There will be alternatives during coding. Finalise all research ahead of product is impossible in this project, so I have made graph the records my overall progress while working on it.

Self - management skills

During the project, as a whole, I think I am organised and motivated to do my work. Or, I can say that I am organised because I am passionate of my work. I have set a realistic goal, and have plans that has proper chronic. Being able to plan ahead of action is one of my advantages. My project has two parts, research and coding. Even I have successfully gather the information needed, I still required the skill to organise the information for my own use while making the product. Thus, the time spent on doing research was quite long, I had short time making my product, nevertheless, I have successfully made the product, which proves well-organisation. To be honest, I am proud of accomplishing such difficult matter.

Criteria C - Taking action

Product

During making my website, I have separated the work of coding into two work. Structuring and making connections. The two parts of organised by different documents. Such as the index page, I used a free templet to create aesthetic, but, it is an unimportant strand. The main aspect I am looking for is the functionality and the form of structure I uses. In html, there are eight ways to send data to the server. I need to choose the correct one, which depends on the situation. For example, I choose to use "post" as my method. Post is a method that sends data to the server. Before conformation of receiving, the webpage won't allow a second click on the button. If a button involves transcript, post would be appropriate. If this button doesn't have major importance, "get" as a method would be more appropriate, because post release more work in the internet, adding more pressure, instead get is just a simple method, low pressure to workload., During coding, choosing the right method became one of my concern.

Before making any connections, I need a fine structure. What I mean by structure is that I am separating documents, so there are webpages, jsp, java bean, and servlet. Webpage and jsp does all the display, and servlet and java bean doing all the service. I would classify different documents to different categories, creating a client server relationship between the two. Because my work involve tens of dozens of documents, this was a process that helps me makes more clearance to what I am doing.

About my global context, I have searched about the impact of the inter on human society. The article shows that the internet have been a positive impact to our global societies and it will continuously to be one. The internet gathers world information, makes it accessible

to everybody. I want to see it in my product. During creating, I would include functions that makes the website more user friendly to represent my relationship between my product and the global context.

Thinking Skills

During code, looking back to my goal, thinking "This is such an extreme goal." I wasn't able to finish this along and in such short time, so, I have to make alternative to my goal. Basically, I needed to trim my goal. A website is a big thing. So, I was thinking about leaving certain parts behind, and keeping other parts with me, so I have reasonable work load and more time to make deeper learning to these certain sub-strands. I had attempt to release the front aesthetic before I went to far on coding. Keeping all the systematic work, the server side. Why, well, because this part is more of a challenging part and matches my personal interests.

Communication Skills

During my project, I usually sit in front of my computer, making sure of my code is right and complete. But, I have make attempt to seek help from others. One of them being a expert in this study, also other areas in computer programming. Every week, I have a chance to meet him, so, I bring my documents and codes with my for suggestions, corrections, and explanation of unfamiliar concepts. I go to him weekly and throw him with abundant of questions. How does this work? Why is this the result? How to make connection? I have fully demonstrated communication skills between him and I. But, beyond was yet to be developed.

When I came up with this idea of learning web development myself, I had struggled with how am I going to demonstrate my learning. Prepare for a licence test? Or should I make a display of my learning. So, I went to the plan of "Let's make a website". Off course, this was an unrealistic goal. So I had trouble trimming my goal. Instead of making a complete

website, I applied completed template to decorate my system. Focusing the background work, the server side of my system. I may not have a complete system, but I had the choice of my focus.

Criteria D – Reflecting

Evaluating the Product/Outcome

As to seeking into my product and result, I see two major points, in both good and bad connotation. First, I have gain much experience during the project, allowing full research and practice to fill my product with knowledge. My product is good in form, I have met my criteria of bringing functionality and structure during development. Practice and applied specified knowledge and techniques was successful. Second, though my product is good in form, but it isn't good in shape. I have a complete structure, but I could make details to it. I have practiced abundant to skills and techniques, but the application wasn't general enough to be applicable to the whole website, plus, I didn't enough time to finalise certain functions that I gave up on.

As that being said, I have a product of a median level, but what does it represents? During my product, I kept on seeking details relationships between my product and my global context. Certainly, the concepts of websites and internet has great relationship, but Being specific and detailed, I have failed to do so.

Here are some changes or improvements I should have done that I have observed. I should have include ways of update the website, which I can make connection from this example to Sustainability, part of my global context. So as a email system, which could have relate to Globalization. I will kept on finding flaws and improvement later in future, so I can grow more and more.

Change of Knowledge and Understanding

I was completely unfamiliar to this subject. Now, I have gained much understanding in specialized knowledge. In the first place I have common stereotypes of the internet, well, I was ignorant. Later found out that this subject is much harder than I thought. Along the way, I have made decent research. Besides from websites, I have gain most of my knowledge from interviews and books. So I have varies of sources that diverse my view. I will continue on reaching further in to this subject after on.

IB Character Traits and Learner Profile

During making the website, there are several IB character traits that I performed. First, due that that I need to make heavy research, I am an inquirer that can make relatable question during research. Secondary, Because I have gain lots and lots of knowledge from my research, I became knowledgeable to this subject. As I have said, I have gain massive knowledge, organizing these knowledge required strong thinking skill. Not even mentioning the application, I think I am most qualify as a thinker in this project. There are also some other character traits I see in myself, such as a risk taker. I set this highly challenging goal without noticing its difficulty, just knowing that this is going to be a larger project. I say that I am a naturally born risk taker.

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Appendices

Appendix A – GANTT Chart

Objective	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
	9/16	9/23	9/30	10/7	10/14	10/21	10/28	11/4	11/11	11/18	11/25	12/2
Investiation												
Define a Highly Challenging Goal												
Define Research												
Reseach Process												
Evaluate Source												
Prepare Criteria for Bibliography												
Planning												
Develop Criteria for Product												
Prepare Action Plan												
Reflect on Action plan												
Taking action												
Finish Prototype												
Finish Final Product												
Rflecting												
Evaluate Product												
Create Appendix and Bibliography												
Plan and Draft Report												
Final Report												

Objective	Week 13	Week 14	Week 15	Week 16	Week 17	Week 18	Week 19	Week 20	Week 21	Week 22	Week 23	Week 24	Week 25
	12/9	12/16	12/23	12/30	1/6	1/13	1/20	1/27	2/3	2/10	2/17	2/24	3/3
Investiation													
Define a Highly Challenging Goal													
Define Research													
Reseach Process													
Evaluate Source													
Prepare Criteria for Bibliography													
Planning													
Develop Criteria for Product													
Prepare Action Plan													
Reflect on Action plan													
Taking action													
Finish Prototype	N/A												
Finish Final Product													
Rflecting													
Evaluate Product													
Create Appendix and Bibliography													
Plan and Draft Report	N/A												
Final Report													

Personal Project Process Journal

Topic:	Web Development
Goal:	To learn the skill of coding a website, and research on the contents. Using professional skills to design the website. It can be easily operated by a high school sudents
Inquiry Question:	What are the qualities that an excellent, effective website has? What would include in a student council website?
Criteria:	Product: 1. Highly organized and clear webpages and sources(essential files of the web). 2. Each functions are completely aware for exceptions in coding. 3. Being able to update/renew weekly or shorter by applying holistic web management. 4. Systematic coding: effectively using programming languages(JavaScript, Html, database connection, java bean, etc) on what they are specialized for(ex: html is really good in displaying simple information, database connection would be processing relative languages instead of codes). Journal: 1. Using without specialized terminology to explain the concept of each files. 2. Describe the methods(Technics) chosen and explain the reason of choosing it. 3. Containing a complete outline of the product, such as specific coding methods, positioning, structure, etc.

MONDAY, 16 DECEMBER 2019

This screenshot keeps my progress now. Basically, I have made code that can make displays on my browser.

This is a second photo that represents my current work. This is the display after deploying my code to browsers.

MONDAY, 18 NOVEMBER 2019

Here is a free pamphlet source I found: https://www.free-css.com/free-css-templates/page7

This page has a large variety of kinds of web designs that I can choose to use as my web template. I will add more introduction to this website later on with screenshots and explanations.

MONDAY, 18 NOVEMBER 2019

I just got another idea, this is common, but remember that every website you visits would want to ask for your email to send you news and events of their website. I am very interesting to how they manage the accounts they have and how they send the emails automatically through programming.

Here is the source I've just found: https://stackoverflow.com/questions/46663/how-can-i-send-an-email-by-java-application-using-gmail-yahoo-or-hotmail

Some general introduction to StackOverFlow:

StackOverFlow is a famous website for programmer that they visit, ask questions, and knowledgable programmers provide their solution to your problem. Though academically, using Q&A form websites like Quora would lose credibility in instance, but in programming these websites are the helpful one. if you directly put the coding or concepts they provide to compile, they actually works.

What I've found and learned:

After reading the coding and the caption, I can clearly see that there is a API in java that supports the auto-mailing function that I was talking about. All I have to do is to go to Java's API page and fund the mailing API, read through the interfaces and function of it, then I can put it to real uses.

MONDAY, 18 NOVEMBER 2019

Besides from the coding part of my website, in other words, to make my website functional. I would also need to make my website beautiful. If I am going to use simple html pages, the visual quality would be poor, like hell poor, so I need a way to produce a beautiful visual content as well as my coding. I realize that these two should be separated. These two are suppose to be done by too different people who have two different jobs, web developers and web designers. Now, I am only qualify as a web developer, or self-learning to be one, I don't any credentials or skill that can support me on the web design part of my website. Here, I have a solution, in business websites, even big companies, they install website templates that is finished by web designers, redo the "content" of the website, then run it as their own. I wish to do the same, indeed, I would miss the chance of learning to design a website, but I don't think I have enough time to finish the process either. I will keep searching for pamphlets that can hopefully be the base of my website's user interface.

MONDAY, 11 NOVEMBER 2019

I have set a strand in my 7-8 criteria that the student is able to perform database connection. I set this strand to challenge myself more. And indeed, this is the part where I need to put serious amount of effort in to get. I am completely ignorant from database languages and application. So I am going to start like a beginner, finding videos that might relate to database website connection, eventually, source that I can find methods to make real applications to. I am writing this right after I've found my first source.

https://www.youtube.com/watch?v=zyuToCeHSbk

This is a video that teaches how to make connection to a Access file through java. This video is great, from my knowledge, I can be applying this to my business logic. Business logic is a part of the website, that provides the service for the client side. As the client clicks a button called login, the html page directs a request to a servlet document, which process the request (I will explain request in another entry) and send back a signal to the server side. The server side would decide whether this client's username and password are correct, which then sends a signal back to the servlet document and then to the html page. The html page would redirect to a login successful page or a login failed page.

This video I got would fix coding of the servlet document. I can apply it to my website right away because would probably include a login function to my website.

MONDAY, 11 NOVEMBER 2019

From my journal entry, November 4th 2019 9:52, I have mentioned that I will scale down the website into a few webpage that keeps the functionality I pursue. I think I have only brief about the idea, but here is what I am going to do.

1. Trimming the size of the website, I think three to five pages would be enough.

2. I would include database to my website. I set this goal as 7-8, and I will aim it as my target.

3. With the more time I got, I can pay more attention to the visual quality of the pages and the programs running the website at the server side.

I have been doing research, which is doesn't fit for what I've been doing lately. Sightseeing I would say, I spend around half an hour every week, visiting famous websites. I am trying to catch some certain pattern they have or any function I might try install on mine. I will update the website that I am visiting and write a individual paragraph or a few sentences for what I've captured from the website. Here, I am building my think tank that will help me on constructing the "completeness" of my website. This process will proceed in parallel to my practice to programming, skills, which is another important part.

I am facing another problem here. I was meant to use NetBean as my developer tool, because I have experience on it. I believe that this would make it easier if I use NetBean. But, here is the thing, NetBean isn't available on MacOs computers. To solve this, I would switch to a WindowsOs computer. This cost a lot, but I am planning to buy a surface laptop 3, 8GB ram, 256GB storage. It would arrive on December 4th, which is a weakness to this solution. The time I have to finish my product would shrink. I should have been starting writing my code right now. My two month time had cut in half before I can have my new computer. But, I am not going to waste the time I loss, I am going to practice the language and structure of my web before I put it in to NetBean. This is not a productive process, but this is indeed going to to catch up some time.

I believe that I have mentioned that I had a struggle, but from talking with my supervisor, I kind of know what kind of criteria I should have. I was confused of should I evaluate myself in a subject-specific way or a global context way. It turns out that in personal project, I would have to integrate them into one that can evaluate my work ultimately. Well, that sounds scary, combining something I don't like with something I like doesn't sound fun. But, my supervisor says "No worry, it is just adding more strands to your criteria". Still, integrating global context to my work sounds eerie and cringed, but, I try my best to aim for the highest score.

After talking with my supervisor, I have a feeling that my goal is too "Big" and "Challenging". Here is the thing, my goal was to make a entire website, but after gaining more and more knowledge of this subject, I felt I know less. The knowledge there is too much to harness in two months and to make a original product alone. So, to make my goal realistic, I am going to scale down my goal from a entire website to several webpages that still remains the functionality I pursuit. This is the general idea, I am still thinking about the functions I am keeping and what kind of style my website should be having.

I am facing a problem, or concern. It is about the criteria of my project. At this time, at this stage, we are finishing on our criteria, but I am not. I am not, because I am not straight on what my criteria is going to be focused about. There are two perspectives that I be be focusing to. The first one being evaluating on the coding and the learning I have done. The second one is to address my connection with the global context I have chosen. Personally, I prefer to view on my work on as a web developer, a professional programmer that can criticize on my work productively and constructively. But in terms of personal project, IB wants us to connect what ever we are doing with the Global Context. I think I might going to have a better grade if I set my criteria to the Global Context path, but that is not going to be the part where I will put most of my effort on. This is the biggest struggle I am facing with right now.

MONDAY, 14 OCTOBER 2019

I am adding this as an over view of what and what kind of sources I have:

1. Official textbooks of Java from Oracle

2. An expert on Java, C, C++, VB, C sharp, R, Python, Microsoft Series(Word, Powerpoint, Excel, Access, Outlook),html descriptive languages(html, css, bootstrap, SQL...), database language, and of course Web development.

3. W3school, reliable, provides me something like a dictionary that I can look at anytime when I forgot something.

4. Book: Servlet & Jsp book that I have at home which is very reliable and advance.

5. A free pamphlet website that allows me to more easy on the User Interface.

6. A few videos that teaches me how to make basic on database connections.

7. StackOverFlow, a Q&A style website, but it is actually helpful and reliable, people who writes responses there are credible.

To be continued...

MONDAY, 14 OCTOBER 2019

Yesterday, October 13th, I met with a teacher outside of school that is an expertise in the field of programming. I had an hour talk to him. I have continuously going to see him and joining his courses. About the content I talked to him with, we have talked about the future plans on mine. Yes, this isn't probably highly related to my personal project, but I want to log this. He hopes that I can achieve the master of Outlook, Access from Microsoft. He suggested those two because that Access is basically a smaller scaled database, and Outlook is a mail-organizing platform. Just like any websites, you might able to receive some emails if you have a account logged. The account you registered is being managed in a database, weather it is MySQL, SQL Server, etc. The two is somehow related to my web system, but instead to be a simpler version that I can practice on and reflected on to my coding process. Secondly, he wishes me to take the Apcs tests. The Apcs test evaluates the thinking process while you code, it gives you a problem and the result of the solution, the test requires you to code the solution in java, c , or c++. There are two version of the exam, in Chinese or English. The two doesn't differ much, just that there are two score you will get after the Chinese exam. He thinks that the exam is able to help me on the coding while designing functions. You can see on websites that there are often various of buttons or links you might find, there being coded through java's basic language. The up coming test will be on January and May. Yes, it is very much late comparing to all the due dates, but Outlook and Access is a valid option. I will be practicing in the two from now on.

WEDNESDAY, 11 SEPTEMBER 2019

The reason that I have chosen Globalization and Sustainability as my global context:

The reason is that there is a stand called "The interconnectedness of human-made systems and communities", and I can relate the human-made system as network system and communities as school. Though the human-made systems should normally refer to governments, organizations, countries, and etc, but I think network system is applicable as well.

MONDAY, 27 MAY 2019

Here are the ideas I have about the student council website:

Menu bar: Home, About us, Events, Volunteer, Calendar , Classrooms Reservation System, (up to now, that is it, but there will be more stuff being adding in or combined of needed).

Appendix C – Source Evaluation

MLA Citation		Huang, Cheng-Zhe, Personal Project Interview. winter 2019-2020.
Type of Source		Interview
Currency	When did this interview take place?	Weekly on Sunday During the winter of 2019 to 2020.
	Is this person have the correct knowledge according to time.	Yes, he is a teacher of the study, so, he must have the latest knowledge.
Relevance	Does the information relate to the topic or goal of your project?	Sure, he is an expert of computer programming, and off course, he is an expertise in web development.
	Are you comfortable using this source?	Yes.
	Is the information appropriate for you to understand?	Because this is an interview, so the teacher can adjust the level of information he is telling me. I have received the best fit information for me.
Authority	Who is the person receiving this interview?	Cheng-Zhe Huang
	What are the credentials or organizational affiliation of this person	He is a teacher is this subject, continuously been teaching for over twenty years.
Conclusion		This interview is reliable because I am asking from an expert. Also, this expert gives me proper information which gives me the best help of understanding the concepts.

MLA Citation	Java(TM) EE 8 Specification APIs, javaee.github.io/javaee-spec/javadocs/index.html?overview-summary.html.
Type of Source	Website

Currency	When was this website published?	1995, was the date when java was published, so was its API.
	Is knowledge up to date and current enough to be a source?	This the official site of java, Oracle, they update along the update of java enterprise edition. They always have the latest edition.
Relevance	Does the information relate to the topic or goal of your project?	Off course, without this source, I won't be able to code. This the back up for my product.
	Are you comfortable using this source?	Yes.
	Is the information appropriate for you to understand?	This website provides an archive for me to search, instead of giving my information, this is a website for people to find what they need. Sure, I can fully understand the information within.
Authority	Who is the creator or author?	The creator of this website is Oracle.
	What are the credentials or organizational affiliation of this person	They are the company that owns java, so they have the highest authority when it comes to the information of java.
Conclusion	This website has the greatest authority, from Oracle. This website supports me when I was creating my product.	

Appendix D – Criteria / Rubric of Evaluation

| Criteria	Limited	Etiquette	Proficient
Functionality	This students failed using functions and buttons when website is deployed	This student successfully uses multiple functions and button when website is deployed. Perhaps complex functions.	This student successfully uses multiple complex and advance functions and buttons when website is deployed.
Coding / Programming	This student utilizes simple methods that isn't functional for practical use while building and deploying.	This student utilizes multiple methods that has successfully function while building and deploying. Perhaps using advance methods and functions.	This student utilizes multiple advanced methods and function for practical uses while building and deploying.
Use of Information	This student could extract any important information from sources and make practical uses during coding. The student wasn't able to organize the information	This student could understand and relocate the information for own practical uses during coding. The student was able to organize the information	This student fully understand the sources and made full application to the information. The student organizes the information and relocate the information as own knowledge.
Design of Structure	This student wasn't able to distinct the different of server and client relationship and design a structure to organize the document of coding.	This student recognizes the distinction between the server, client side. Designs a format to organize documents of coding.	This student recognizes and redeem the server, client relationship to uses. Develops a system of organizing documents of coding referring to the relationship.

Appendix E – Brainstorming

1. Home: home will be the first page the student can see when they get into the student council website, there should be combinations of events, volunteer, about, and basic information of the student council.
2. About us: In the home page, "about us" is basic info, but in the About us section, there would be a complete set of information of the student council: member, core value, progress, policies we promote, and etc. The about us info would be provided from the general affair, which we will submit a full list of requirements we need in terms of information.
3. Events: In events, we will display the basic information of events in a list style, which is easier for the students to read and find information. To get further info, the section of each event will have a link set to another web page that has complete information. (We might use this kind of structure, so it will be easier to organize the website's public informations)
4. Volunteer: Because the student council groups had been mentioning about this, I have put some though in this. The structure of this section in the website might involve some volunteer started up from students (ex: stand in shoe). So I think we need to assign a person responsible for this volunteer work and set a auto-mailing system that will have a better communication between the student council and the person in responsibility. Also the students entering this section would be able to view the volunteer work published from the school. There will also be a button/link set up for the students on the websites to intend the event. If the volunteer is started up by student, the auto-mailing system would be available to create contacts between the student responsible with the student intended to join the volunteer. Forgot to mention, we might use this process to the event section to inform the student council. If the volunteer work is published by the school, we might just have it linked to the school web page for the student to sign up.
5. Calendar : This part would be uncertain , because this is basically the function of managebac, but this section will include the event and volunteer's schedule. If possible, the auto-mailing system mention can be used in here to inform students who intended certain events as a reminder.
6. Classroom Reservation System: I hope to combine Jay's reservation system to the student council web page (if he allows it). Though this is already set up, but I just want to show that the student council website is also available for classrooms reservation.

To compile the info above:

1. Home
    a. Basic info of student council.
    b. Brief display of events and volunteer.
2. About us
    a. Complete info of student council
    b. Possibly include: member, core value, progress, policies we promote, and etc
3. Events
    a. List style display of the events
    b. Links in every display to the full info display of certain event
    c. All event info needs to be provided from the Activity Group
    d. Auto-mailing system, view the 7th, a
4. Volunteer
    a. List style display of volunteer work
    b. Separate student start-up volunteer and school published volunteer
    c. Assign a person in responsibility if it is a student start-up volunteer
    d. School published volunteers need general affair to communicate with
    e. Auto-mailing system, view the 7th, b
5. Calendar
    a. Compilation of events and volunteer works in a schedule/calendar style
    b. Auto-mailing system, view the 7th, c
6. Classroom Reservation System
    a. It turns student council website also available for reserving classrooms.
7. Auto-mailing System
    a. Events: It is available for students intending certain events, to send messages as reminders.
    b. Volunteer: Similar to events, but used also to make contacts between the person responsible for student start-up

Evidence of product
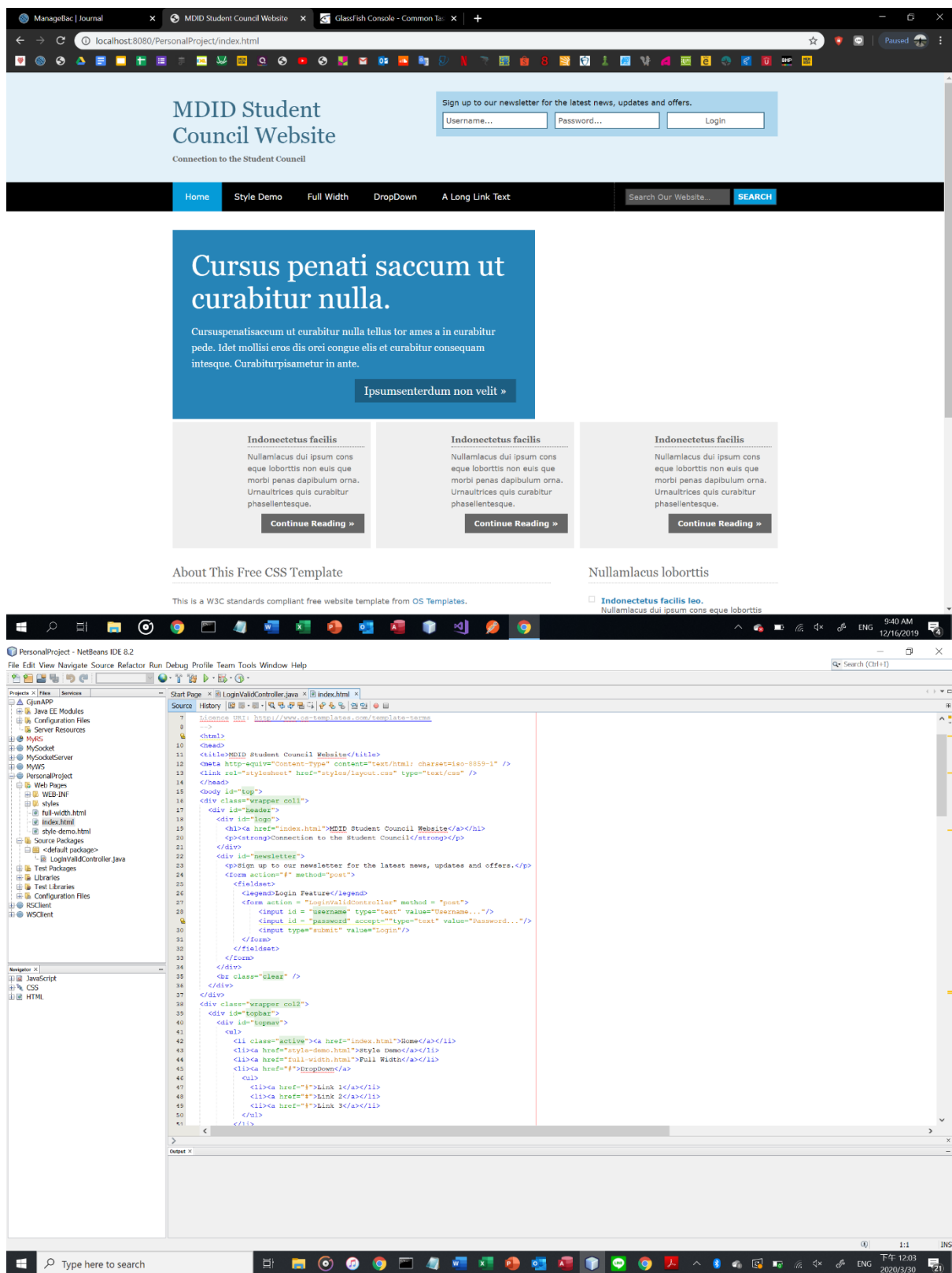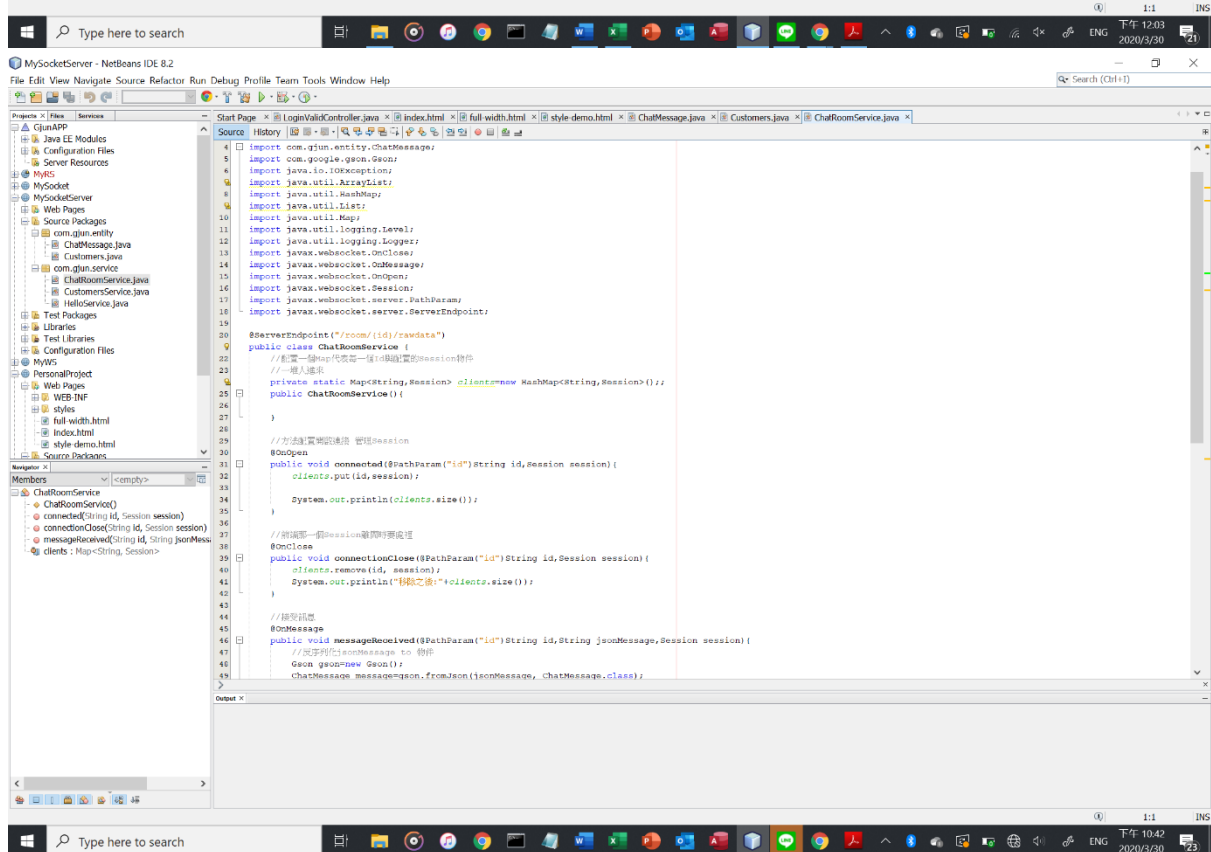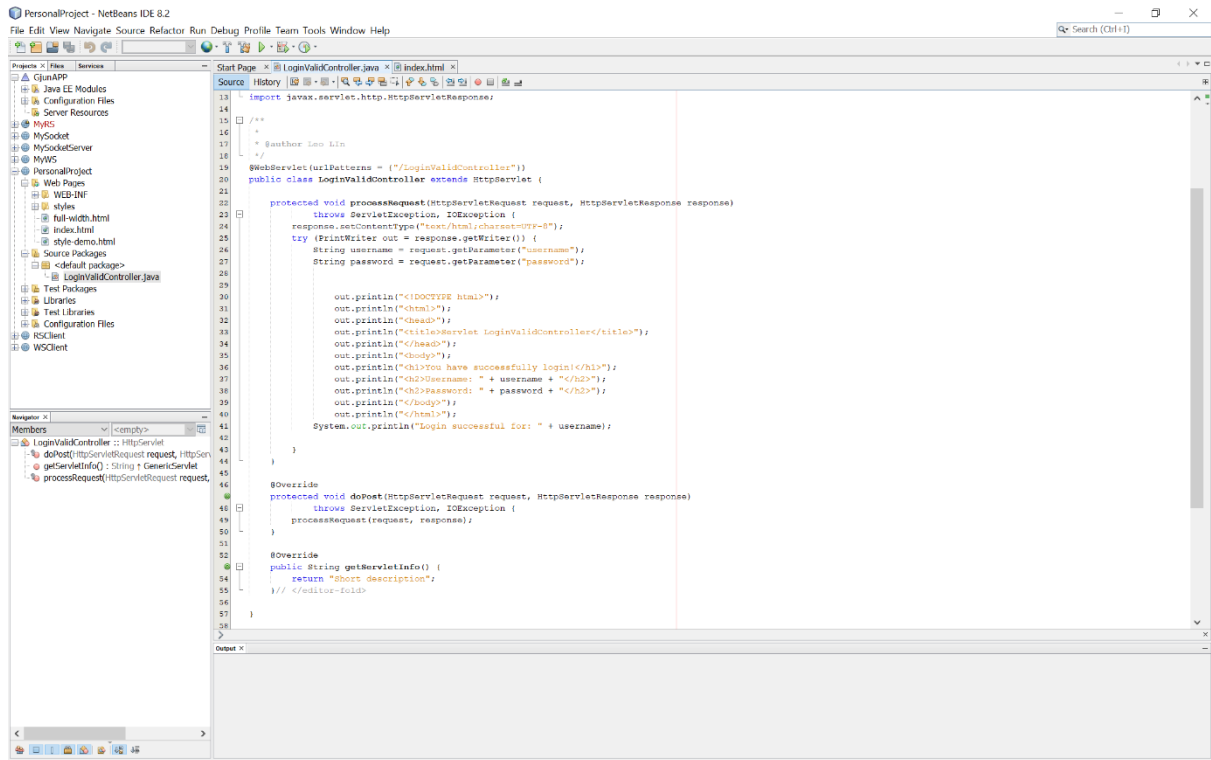
Academic Honesty Form

Personal Project Academic Honesty Form

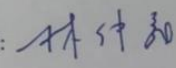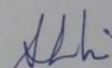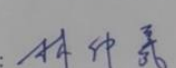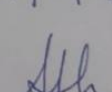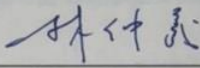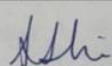|	
Student Name:	Leo (Chung-Hsi) Lin	林仲羲
Candidate Session Number:	
School Name:	Mingdao High School
School Number:	051721
Supervisor Name:	Abdul Shabbir
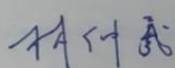
Student: This document records your progress and the nature of your discussions with your supervisor. You should aim to see your supervisor at least three times: at the start of the process to discuss your initial ideas, then once you have completed a significant amount of your project, and finally once your completed report has been submitted.

Supervisor: You are asked to have at least three supervision sessions with students, one at the start of the process, an interim meeting and then the final meeting. Other sessions are permitted but do not need to be recorded on this sheet. After each session, students should make a summary of what was discussed and you should sign and date these comments.

Date	Main points discussed	Signature/initials
Mar 30, 2020 9:30 AM	**Meeting #3:** Leo seems to have a good grasp of what is required to produce a fully functioning website. Although he has considered his goal he needs to make additional considerations for his global context. Leo has demonstrated thinking and communication skills during this process and now needs to provide the 'big picture' of how this PP has helped him grow in these areas.	Student: Supervisor:
Mar 30, 2020 9:00 AM	**Meeting #2:** Leo and met and he seems to have a good collection of sources pertaining to the programming aspect of his personal project. Leo needs to find additional sources relating his PP to his global context and also needs to modify his success criterion to include the global context.	Student: Supervisor:
Oct 17, 2019 12:00 PM	**Meeting #1:** Leo and I discussed his personal project for about 20 minutes. For Meeting #2, Leo will need to add some more detail to his prior subject-specific knowledge and prior non-school knowledge. Additionally, he will elaborate on how his global context fits into his personal	Student: Supervisor:

	project (and use outside sources to back up his claims). Finally, Leo missed Meeting #1 and we talked about the importance of being on time, Leo has agreed to be on time and prepared for Meeting #2.	

Supervisor comment

Student declaration
I confirm that this work is my own and this is the final version. I have acknowledged, in the body of my work, each use of the words, work or ideas of another person, whether written, oral or visual (hard copy and/or electronic materials).

Supervisor declaration
I confirm that, to the best of my knowledge, the material submitted is the authentic work of the student.

Student's signature		Date	3/30/2020
Supervisor's signature		Date	03/30/2020