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CH3880 Bachelor of Information and Communications Technology

BCCE301 Cooperative Education Project

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JavaScript Online Quiz for Moodle3 Ara Institute of Canterbury

FINAL REPORT

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missing a "conclusion" section.

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1 INTRODUCTION

quality assurance (QA)

This report gives the summary of what I have done in the project. The final report is 30 pages in total. It covers these aspects:

- The explanation of the project and its background
- How the project was planned and implemented
- The achievements of the project
- How the project was managed using the Extreme Programming plan
- Evaluation of QA programs and risk management programs
- A conclusion of this report with the methodology essay summary, agile for software management.

2 EXECUTIVE SUMMARY

of the whole report

Anne Wignall is a retired teacher of science and chemistry who is now a textbook author. Recently, Anne has devoted herself to create a number of computer activities to help students study on Moodle.

My mission is using ~~and~~ JavaScript to recreate the quizzes, translate them from Flash into HTML and make these quizzes available on Moodle 3. The ~~project~~ also needs to be supported by smart phone^s and tablet^s (Android & iOS).
quizzes ed run on

My tasks ~~are~~ were

- Diagram:
 - Dragging the correct keyword answer label into the appropriate box, the positions of the boxes display random coordinates each time.
 - Input the right answer into the appropriate boxes the position of the boxes display random coordinates each time.
 - Dragging the correct image answer label into the appropriate box, the positions of the boxes displayed base on the XML file.
 - All the types of Diagram needs to display score base on the how well users answer the quiz.
- Hangman: Filling the blanks of missing words of a definition and show the process of getting the all of the words right. Record the letters that are not in the answer. It also needs to record the score. The answers and question are created base on the XML file.

the summary should include:

↳ outcomes; problems encountered;
main areas of learning

3 BACKGROUND

Anne Wignall is a retired teacher of science and chemistry. She is also a textbook author. In recent few years, Anne has devoted herself to create a number of computer activities to help student to study on Moodle. Anne wishes to perfect Diagram quiz and Hangman exercise.

Anne uses a ~~quiz~~ tool called Hot Potatoes to create ^{the quizzes} ~~the~~ ~~plugin~~ Hot Potatoes ^{plugin}. The ~~plugin~~ Hot Potatoes allows quizzes to be run on Moodle. The version of Moodle on Anne's PC is Moodle2. The school she works in are using Moodle 3 now, which is part of the reason of recreating the project. The ~~currently~~ ~~issues are~~ ^{were} were:

Diagram:

1. It can not work on Moodle3 environment. It cannot get mark from Moodle.
2. Each time that the diagram generated has different coordinate of answer boxes, The boxes always keep in the same position in the diagram at the moment, so when users do the diagram quiz they may just remember the order of the answer not really know the answer match what part in the picture.

Hangman:

1. It has not to be set as an activity on the Moodle now. It cannot get mark from Moodle.
2. Anne wants students to fill in a whole sentence or a short paragraph by guessing letters until they can determine the missing words. Also the Hangman needs to calculate how many times users can get wrong. Some sort of gamification such as an animation that includes bombs, explosions or crashes when letters are wrong is desirable but not essential.

There is a table of "initial and final outcomes", see page 6.

4 OVERVIEW OF OBJECTIVES

→ introduce ~~the~~ what this section is about.

Halfway into the project, some new features were added and some activities were cancelled, the outcomes have been re-negotiated, here are the details:

Before the halfway, the original plan for my client is to create 4 activities:

Diagram with two types, input type and drag type;

Hangman with animation;

Chemical diagram;

Better solution of multiple circuit diagram answers;

During the development period by the halfway, the actual outcomes are

Diagram:

1. For drag type, the answer boxes and the point aiming at the picture need to be generated by random position each time users refresh the web page.
2. For input type, the label boxes' background change colour by times that users get wrong answer input and if users get 4 times wrong answer. The correct answer will automatically display in the box and user can not change it.
3. For drag image type, it is quite similar with "drag type", just using images boxes instead of answer boxes.
4. The score system make user to get different points base on the times they get right.
 - First time users get correct gets 100% for the question
 - Second time get 75%
 - Third time gets 25%
 - Users get no points by the fourth time.
5. Responsive design

The activities layout can fit different size of screen by different devices such as PC, smart phones. See the picture at right.

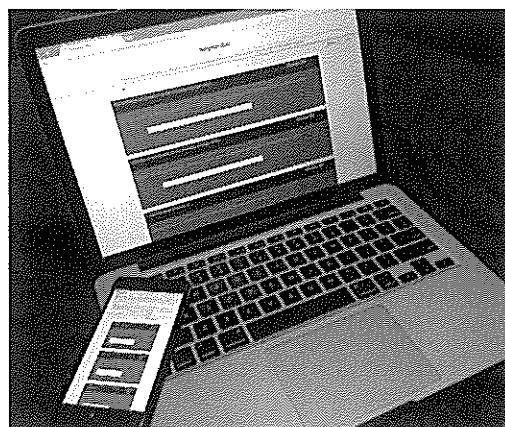


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Footer line

During the development of the Diagram project, I made a coordinate generator tool, so the client can create quizzes easily. This did not come from the original plan. The priority of the Diagram activity final outcome was completely finishing development and testing the "input" type and "drag" types on Moodle environment. In addition, there is an option feature which is dragging images instead of dragging labels. At the end, those three types have been implemented and tested on Moodle3 successfully.

Hangman: My client's priority of the final outcome of the project is implementing the functions and testing on the Moodle3 environment.

The basic features are:

- 1 Guessing sentences base on the tips.
- 2 Setting an appropriate limited time of chance.
- 3 A recording score system to calculate score base on how many chances users are left.
- 4 Responsive design of the layout.

Also, I made some more features to make Hangman better

Such as:

1. To show the right answer in different colour to user.
2. Making noise when users putting wrong letters.
3. Getting random questions from the xml file instead of getting in an constant order questions.
4. To show and record the letters that users have typed incorrect.

As the project proceeds, the Chemical diagram and Better solution of multiple circuit diagram answers projects are cancelled. Because the priority is to get Diagram and Hangman perfect.

5 OUTCOMES

introduce what this ~~section~~ ^{section is} about 2

5.1 INDUSTRY OUTCOMES

The project has the following outcomes.

- Features that required
- The testing results
- The defect tracking
- API Documentation of the online quizzes for maintenance

5.2 ACADEMIC OUTCOMES

- Project proposal
- Academic / Industry supervisor assessments
- Methodology essay
- Halfway report including
 - Risk management for project
 - Quality assurance for project
 - Review of 200 and 300 level courses

5.3 PERSONAL OUTCOMES

I have learnt the following skills and knowledge that I gained from doing the project

- Deeper understanding of JavaScript
- GitHub for version control
- How to set and configure Moodle3 environment
- Using jQuery to make the project easier
- Extreme programming for project management

> start on new page

5.4 COMPARISON OF INITIAL AND ACTUAL OUTCOMES

A table to illustrate the outcomes at different stages:

Activity name	At beginning	At ½ way	At end
Diagram (drag/input)	Was required at beginning. 1. Drawing a line to match box and point. Drag the appropriate answer card to the box. 2. Generate the boxes in certain order. 3. Only has drag type. 4. The first demo	1. Replace drawing line to match box to creating colorful index to match box and point(The best solution of three options). 2. Generate boxes in a random position with the same color of point's index. 3. An new "input" type of Diagram was developed, users have 4 chances to get a	It has been implemented the required features at the end.

Headers

no orphans	used the new xml configure file. 5. Responsive design.	correct answer by inputting right letters, also change the background color to indicate the different stage where user at. 5. Fit the code to use the original xml configure file. 6. Set a passing score. 7. Implement the responsive design. 8. Creating an API guide documents for subsequent developer maintenance.	
Coordinate Tool	Was not required	That is an extra mile work in order to help client easy to create quiz. It was finished before halfway. The tool can record the coordinates of a given point in a loaded picture. It also generate xml code automatically for client.	Change a quite few feature for this tool. It has been implemented at the end.
Diagram(image)	Was not required	Was required in the halfway	It has been implemented all the basic functions, it could be better if proceed to develop
Hangman no orphans	Was required at beginning. The basic function of completing the missing word. An animation to show the process where user at.	Requirement was changed: 1. The animation was canceled. 2. Duplicated letter does not count for an extra input count. 3. Record the letters that users have put. 4. Record the wrong letter that users have put. 5. Get random questions from the questions list. The Hangman project started in the beginning of halfway.	1. Fix duplicated inputting same letter bug. 2. A more comfortable and colorful layout. 3. Set a label to show users' chance. 4. Record the letters that users have put exist in the question. 5. Record the letters that users have put no exist in the question. 6. Put a cross and tick picture to indicate the question if is correct. 7. Show the correct answer with highlight

			<p>letters which users can not guess out.</p> <p>8. Get a certain number of a list of questions from xml file and questions are picked randomly out of all the question.</p> <p>All the functions have been achieved at the end</p>
Chemical quiz		<p><i>spelling</i></p> <p>Canceled in the halfway</p>	Canceled
Multiple circuit answers solution		Canceled in the halfway	Canceled

6 PROGRESS MADE

introduce this section

6.1 OVERVIEW OF OBJECTIVES

The activities have to work on Moodle 3, they need to work with Firefox, Chrome, Safari. They need to work on mobile devices with touch screens, both iOS and Android, desktops, and laptops. Users are primarily students in the third world.

1. The project is aiming to fix all agreed problems to the existing resources. Each activity has different issues.
2. The activities also needed to implement new features that Anne required to add to these activities.
3. It needs to make the user more positive and motivating to use the quiz for studying on Moodle.

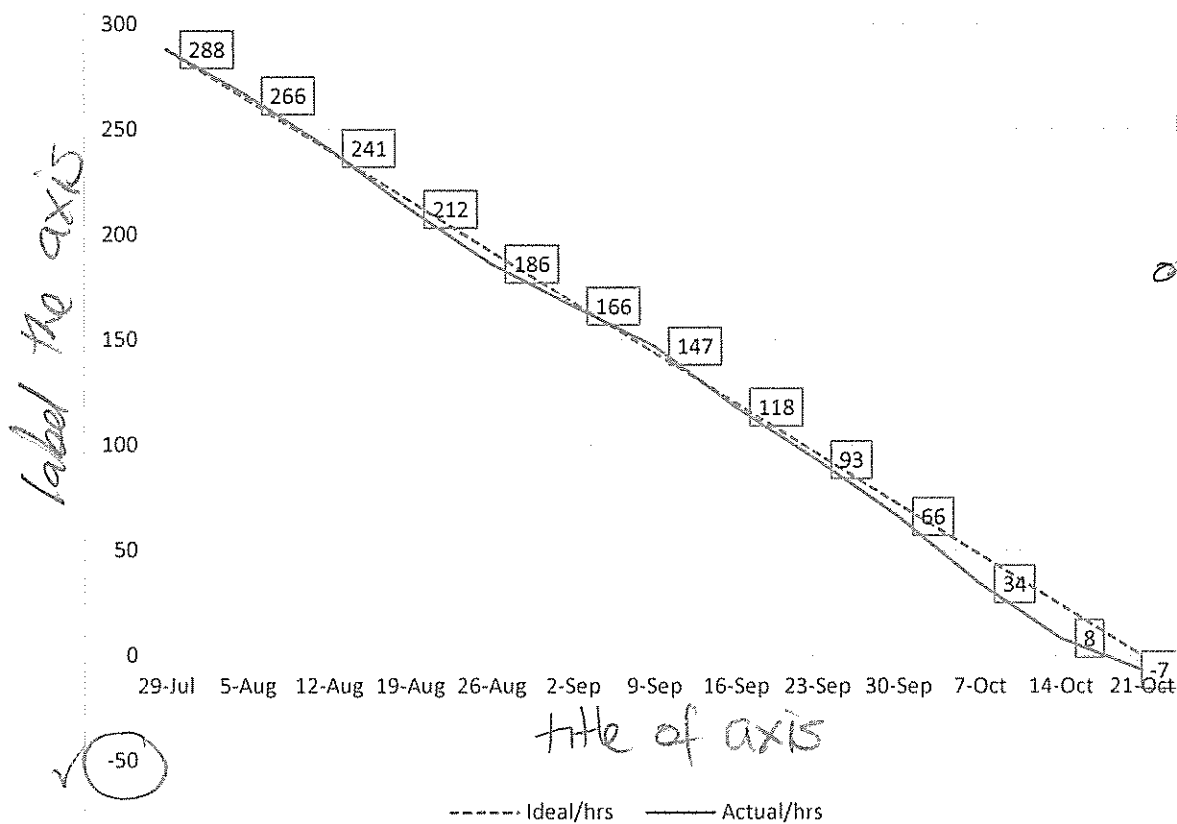
Quiz name	Achievements
Diagram (drag/input)	All objectives were achieved. <ul style="list-style-type: none"> • Identify and fix all bugs • Modernise • Add new features and a tool • Improve maintainability with API document
Diagram(image)	<ul style="list-style-type: none"> • This was not in the original quiz list. Just start at the moment.
Hangman	All objectives were achieved. <ul style="list-style-type: none"> • Identify and fix all bugs • Modernise • Improve usability • Improve maintainability with API document

6.2 MILESTONES ACHIEVED

An achievement list and a burndown chart to show where the milestones were achieved.

fig # / title

Project BurnDown Chart



Achieve Date	Achievement
29/07/17	First iteration of proposal to ensured the project was feasible
1/08/17	Second iteration of proposal to achieved understanding of the required functionality
5/08/17	Diagram project demo under Github version control
6/08/17	Demo on the Github web page
10/08/17	Gained understanding of some common issues
12/08/17	Risk management plan:50 risks identified in notes
13/08/17	8 mail risks analysis
16/08/17	QA for course
17/08/17	First iteration of Diagram activity demo
18/08/17	QA for course
24/08/17	Coordinates generator tool achieved
28/08/17	Finish developping basic features such as "input" type and "drag" type
31/08/17	Finish Implement Diagram and test on local test environment
6/09/17	Sign off the proposal
8/09/17	Methodology Essay Part A
14/09/17	Using JsDoc to generate API for Diagram
18/09/17	Halfway report cover all topics

not all achievements
are shown

new page

Research of Diagram and Related Issues

- Ensured the project was feasible.

- Achieved understanding of the required functionality.
- Diagram project demo under Github version control and a demo on the Github web page.
- Gained understanding of some common issues.

Risk Management Plan

- Risks analysis and plan details see page 19

Quality Assurance Plan

- QA for course: Task list created to ensure the project meets or exceeds the required quality. See the details in Quality Assurance_A.docx file.
- QA for industry: Metrics defined for determining the success of the final product. See the details in Quality Assurance_I.docx file.

Diagram Project Maintenance

- Get knowledge of using JsDoc3 to generate API documents automatically.
- Tackled some major issues early.
- Used to refine project requirements.

Diagram Project Functional

- Diagram project created. Including two types of quiz: drag and input.
- Tested functionality on Chrome, Firefox, Safari browsers.
- Tested responsive design on Iphone6 and Android

Diagram Coordinate Generator Tool

- The coordinate generator tool created.
- Tested functionality on Moodle3 environment with Chrome, Firefox, Safari browsers.

Hangman Project

- Gain experience of JavaScript event binding.
- Tested functionality on Moodle3 environment with Chrome, Firefox, Safari browsers.

Management of CE301 Course

- Proposal: After meeting with client Anne, I took two days to get a proposal draft, after that I show it to my industry supervisor, academic supervisor and client, got feedback from them. Then modified it. I got it sign off by client on 6th Sep.
- Daily Plan: I met with my industry supervisor Mike on Monday every week to show him my plan of the whole week, wrote detail work for

each hour. I studied about 6 hours on this course from Monday to Friday.

- Weekly report: I got feedback from the weekly meeting with Phillip, Luofeng and Mike, they gave me suggestions and tracked my process. In this way, it lead the course can be finish smoothly.
- Methodology Essay: My methodology essay topic is "Agile Project Management" It mentioned how the project run with using the programming method.
- Halfway report: In the Halfway report it mentioned the significant changes of the program and what has been re-negotiated.

6.3 PROBLEMS ENCOUNTERED

Software Management

bdd ?

- Changed requirements: It is quite normal the requirement changed after meeting with client. I changed my original plan after I estimated the time consuming.
Sometimes adding an simple button was not as easy as it looks like, because the code is structural, I need to modify with several files, the CSS of html. Some potential problems or bugs may come out. Even I am not focusing testing at the moment but I still need to keep every function runs well, so after adding new code, I always test all the exist functions to ensure that the changes would not affect the original code. Another problem is some previous work may be useless or waste after getting new requirement.
- Features added: Same as changed requirement, sometimes client may propose some new features. The problem was quite like I mentioned with changed requirements. Adding new features needs to modify my plan and may change the logic of original work. Also I needed to modify everything that related to the code, such as API documents. In my case, I made a coordinate generator tool for my client which was out of the original plan. And after that, there were some new features that needed to add for the coordinate tool. I spent a lot time to research and create that tool, so I worked extra time in that week because I really wanted to get the project done perfectly.
In order to manage the project and nicely communicate to the client and get the client priority, I used agile extreme programming planning to better manage the project.
- API for maintenance: I used this tool to create Application Program Interface(API) documents for other developers to maintain the project in the future. My laptop is a MacBook, when I was first to get an API generator tool, I have tried to download a lot versions of JS generator tool.
Finally, I used JsDoc3 with NPM to solve the problem.

Personal Factors

- My personal English is not very good, sometimes I worked a lot and I thought I worked very effective, but my client may not know. A lot effort was behind the code. I needed to show her my work and let her be satisfied. I also needed to show a lot evidence to my supervisor to get the satisfaction. Because I am going to find a job in New Zealand, it is quite important for me to get a high grade.
- Research and study while developing HTML5 animation. I did not have enough knowledge of HTML5 animation, so I spent a long time for watching the tutorial from the Internet and did some practise for better understanding the knowledge.
- HTML5 drawing pictures with canvas were hard to achieve the responsive design, using DOM to draw can be responsive but it took a lot computer resources. — explain
- The resources of using JavaScript are almost written in ES5 version from the Internet. I took a long time for researching. — impact to schedule
- ✓ With doing the project, I also needed to study DataBase course and to finish the assignment in the last two weeks before half-way, I only reduced 4 hours work for project and took more than 8 hours on Database in that week. And I put extra 4 hours in the following week for the project. So both project and DataBase course went smoothly, I felt good where I were at that time.

This is good, but go deeper

bold?

why?

Impact to schedule?

7 COURSE MANAGEMENT

Time Management

- MyHours track time log
- Plan the work for next week in detail

CE301 Cooperative Education Project Class To Accompany Project

- Track the process of the project and guide me a professional way to accomplish the project.

Compromises In Other Aspects Of Life

- Priority:
Online Quiz Project>CE301>PR203 >Exercise>Relaxation/Sanity> Social Life

Daily Plan, Weekly Reports And Progress Meetings

- Do daily plans for next week on every Monday after meeting client.
- Talk about where I'm at of the project. Major issues and successes with Dr. Mike and Dr. Luofeng.
- Check and discuss academic work with Phillip at least once a week

Effectiveness

It is quite helpful and effective that records time consuming. Make a plan in details of every hour before the work of next week leads me to have more clearly goal. It also push me to work more concentrate for each day. I meet my supervisors three times once a week, they help me to give me idea and guide me to solve the problem I encountered. They also check my work of coding and report from previous week. It ensures that the project goes smoothly in every stage.

Reflection

It reduced stress when I was working, because everything has a ~~roughly~~ deadline. It gave me a ~~big~~ view of whole week and my supervisors gave me suggestions for the work at each stage. In the way, I can manage the project better, let me be able to finish the project confidently.

8 REVIEW OF PREVIOUS COURSES

introduce this section.

8.1 BCPR282 BEST PROGRAMMING PRACTICES (JAVA)

- **Programming Best Practices**
Best practices of separation of concerns, SOLID principles were taught in the class.
- **MVC In ES6**
In the project, I used JavaScript program into MVC model. While I applied it into the project, it made the project more maintainable structural and easier to add more features.
- **Android Development**
The Android developing tool and skill were taught in the class and made an Android App in the final assignment.

Recommendations

This was a course that made me easy to get into the structural coding, separated the code into model, view, and controller standard. It was quite useful and easier to maintain in the future. No matter what programming language people use, the MVC design pattern is quite useful to separate application's concerns. On the other hand, the final assignment was about an Android App, it might be a little bit harder for a learner to make the App.

8.2 BCIT388 MOBILE TECHNOLOGY

This course taught technique knowledge of Mobile, such as the importance of complexity of password, the Wi-Fi and Li-Fi in people's lives and Gamification. In the first several weeks we practised to design several small Android games by Google MIT App Inventor. It was quite easy and fun to quickly get start to develop Android App.

It also involved the knowledge about the mobile development, market, gamification and the design of mobile applications.

Recommendations

Gamification is a very important game principles that it encourages and improves people engagement. It can almost embed into everything to get a positive effects on individual's ability to understand a certain area of study. I was required to put an

animation game in my project, although it was cancelled, I still believed it was going to be attractive after adding that feature. On the other hand, as a level7 course, I suggest to put the Java Android lessons and final Android App assignment into this course.

8.3 BCPR203 DATABASE MANAGEMENT SYSTEMS

This course was aiming to understand the significance of Database Management Systems. To gain the knowledge and the technical skills of how to design, implement and manage a relational database in business. It also taught students how to write SQL statements. In the class, students practised to design database by real business case.

Recommendations

I chose this course because database knowledge are always combine with website project's back-end. After I learnt this course I got a whole view of full-stack developer. It widened my knowledge and it was going to be very useful in the future. In my current project, I used xml file as database to configure and store information, however JSON is more sensible and acceptable than xml file. I think it will be better to teach more knowledge related to JSON in the class.

8.4 BCCE301 COOPERATIVE EDUCATION PROJECT

This course gave the opportunities to students to communicate with technology industry. Let students learn different areas of technical computing skills and gained experience in an industry environment. Explaining the problems that were encountered in the project.

In the course students will also discuss the quality assurance and risk management base on the project

In addition, students needed to evaluate the 200 and 300 level (Level 6 & 7) courses that were helpful for the project and better support the project.

Recommendations

This course was more depend on self-learning. Supervisors gave students directions and helped students to solve problem.

What's more, the course helped students to track the process of project and ensured to accomplish the project.

However, the most time was on implementing the project to get client's satisfaction. It will meet many areas of problems. It almost relies on students themselves to solve

those problems and needed to get the supports from supervisors immediately. It saved time than thinking all by oneself.

8.5 VPR280 SOFTWARE ENGINEERING 2

This course was the most relevant in all the level 200 & 300 courses that I took. It taught JavaScript programming frameworks and practise the assignments with Personal Software Process (PSP) that was an Agile development process. This course was really like what I have done in the project. The agile development process was quite like what happened in the reality of industry, this course helped me a lot.

- **JSHint**
A code checking and analysing tool that helps developers to find out errors and potential problems in JavaScript code. I used it combine with StandardJs in the project to check my JavaScript code..
- **Toggl**
A tool for recording time consuming. I used this tool in course, but I am using MyHours instead in the project for the same purpose.
- **JavaScript ES6**
The latest version of JavaScript. I used this as main programming language in this project. A good thing about the course was that it involves pretty much coding, so I got used to writing JavaScript quickly. Taking this course at the same time helped a lot because I could ask programming questions in class.
- **Jasmine**
This is a JavaScript testing framework. Write testing code follow the Jasmine syntax, then automatically check the functionality of each function in the code.

Recommendations

The course was the most useful for me. I have learned about Jasmine framework test automation and how to use Angular1 in ES6 to develop project. Angular is a quite popular development framework in the industry at the moment, I felt happy to learn it. However, Angular in ES6 version does not have enough resources in the Internet, it is almost in ES5 version.

8.6 BCIS301 MANAGEMENT OF ICT

This course was looking at the bigger view in ICT. It taught how to use frameworks to evaluate, analyse, and convincing solutions to studying IT governance. It also taught students to use COBIT framework for risk management.

- **Gathering Information**
In the course, students got a task to practice to participate in an

interviewing and gathering information with using the frameworks to gather and separate the information in order to analysis and evaluate the better choice of solutions.

- **Risk Identification And Evaluation**

Students also learned a Risk IT framework, which is called COBIT. It explains risk into 4 main areas and I use this risk management knowledge in case study, created criteria of evaluation and the hierarchy of best option.

Recommendations

I used the skills from the course to evaluate potential options or solutions for my project. The course help me to give me a direction of thinking where risk from. But in fact, what we learn from the course is more about theory, we may lack of experience in the real project.

9 RISK MANAGEMENT

introduce this section

Risks in the software developing can not be avoid, many reasons can slow down the project or even make the project fail. There were three parts of risk needed to consider.

1. Project Risk – some factors could cause a project to fail;

1.1 Financial - the investment of the project was not enough;

1.2 Strategic – the requirement may change or need to add some new features;

1.3 Technical – the key technology of the project may not get enough support in the future;

2. Production System Risk

2.1 The production support team members may have not enough experience and skills sometimes.

3 Personal Risk

3.1 The degree or the knowledge of skill may not enough to support the project.

3.2 The impact on developers health and the emotional will effect the project schedule.

Risk name	Impact	Possibility	Exposure	Mitigation	Contingency
Member not familiar with the technology	80%	80%	64%	Schedule time for learning and researching	To get support and helps from Academic and Industry Supervisor
Requirements change or be added	60%	70%	42%	Check with the client's priority. Then modify the plan of project	Change project plan and take changes into the next weekly plan
Testing environment not available	80%	20%	16%	Check available environment	Build environment

Risk name	Impact	Possibility	Exposure	Mitigation	Contingency
Too many bugs that not all can be fixed	80%	20%	16%	N/A	Change project scope to fix only those of high priority
Member sick	80%	10%	8%	Do not work day and night, having rest is important	Have enough rest every day.
Client is not available	30%	20%	6%	Get the client's schedule beforehand	Make plan to do things that I can do without the client
Data lost	90%	5%	4.5%	Using GitHub and One Drive to manage the version control	Download from repository Or One Drive
Budget might be needed	50%	1%	0.5%	Check if I can use budget and how much	Select methods that do not need money

Effectiveness

In order to finish the project, it is always good that try to predict the risks before they happen. After analysing the risks it reduce pressure when the risks come out. Because I have already give the solution. And the best way to solve the risk is preventing it not to happen. Such as I use Github for my project version control, so it significant decrease the rate that the Data lost risk happen.

Reflection

In the project, the risks I mentioned in the table were changed requirements and features added. I made a tool for my client to create quiz.

Because It was a free-pay project, so there was no budget risks. I put all the code and documents on the Github to save all the materials to prevent data losing. Another risk was I was lack of using HTML5 canvas to make animation, but this feature was cancelled.

The project was developed just only by myself. The project had never been interrupted because I have never gotten sick. My client were back from surgery and recovered very quick. We have not missed our weekly meeting.

10 QUALITY ASSURANCE

introduce this section

Quality Assurance is short for QA, which means the approaches of checking if a project meets the client's requirements.

List Of Deliverables

Tips: Github link: <https://github.com/mingdazhang2/>

List Of Deliverable				
No.	Name	Category	Path	Criteria
1	Sign-off Proposal	A	In Github /document/Proposal	IS and AS sign if off
2	BurnDown chart	A	In Github /document/	Adjust 24hours a week
3	DailyPlan sheets	A	In Github /document/DailyPlan	From week1 ~ week6, it has every hour's goal
4	Weekly Report	A	In Github /document/WeeklyReport	From week1 ~ week6, check with AS and sign off
5	Methodology topic	A	In Github /document/Paper	Part A
6	Diagram project class diagram	I	In Github /document/Diagram Doc	classDiagram.PNG
7	Diagram project code	I	In Github /diagram/	Code in diagram folder;Code version control on Github
8	Diagram function check list by client	I	In Github /document/Client	Sign off by client
9	Diagram work check by client	I	In Github /document/Client	Sign off by client
10	Notes for Risks and XP game for Methodology topic	A	In Github /document/Notes	
11	Animation idea for "Hangman" project	I	In Github /document/Hangman Doc	
12	A "Hangman" demo with basic function code	I	In Github /Hangman/	Code version control on Github
13	CoordinateCreator	I	In Github /CoordinateCreator/	A tool for helping client to create quiz with basic functions
14	CoordinateCreator2	I	In Github /CoordinateCreator2/	A final tool for helping client to create quiz[Better]
15	QA plan draft	A & I	In Github /document/Paper	
16	Diagram project demo on web page	I	https://mingdazhang2.github.io/Diagram/main.html	
17	CoordinateCreator demo on web page	I	https://mingdazhang2.github.io/coordinateCreator2/index.html	

Effectiveness

1. Readability by maintainer: In order to making easier for maintainers, I wrote readable comments and modularity code to help maintainers to understand the system quickly.
 - 1.1 Comments: It includes function header comments and line comments. Describe what happens for the code.
 - 1.2 Modularity: Make the code structural and clear, can be easy to add up new function or reuse the code for maintainers.
 - a. Separate JS file: Separate the JS file into different file base on the class and design pattern
 - b. Classes: Create classes base on the
 - c. XML structure: The XML should be structural, it should not write every tag in one line. It needs to use indentation for each child tag.
2. Functionality: The project should work as required, which means the project works. There are three main users that will use the project and care about the functionality.
 - 2.1 Client
 - 2.2 3rd World students on mobile devices
 - 2.3 Teachers- create new quizzes by modify xml file

Reflection

With all those strategies and approaches I felt very confident to meet the goal at each stage.

- The structural code is quite effective to adding new features.
- Besides, building an API maintenance document instead of solving the problems by reminding and re-thinking the code when updating the code, it can avoid to waste time.
- Let the developer myself act a role as user, find out what my client really wants. First ensure the functionality of the project meets the requirement. Then, bring the result with more usability to client and it always along with supervise. As long as getting that point, client will be satisfied.

11 METHODOLOGIES

For this part, my methodology essay topic is "Agile software management". Agile management of IT project is widely used for software development. Extreme Programming as a common agile method, it was first used in the mid 1990's (Wikipedia, 2017, para. 3). It is successful method because it leads customer to feel satisfied. It is not easy to deliver everything that as developers planned forego on some date very far in the future. With using this method, the process delivers the achievement as you plan it. Extreme Programming makes developers to respond confidently to changing requirements or adapting to client feedback.

The XP planning game emphasizes teamwork. Clients, managers, and developers are all equal important role in the collaborative team. It implements a simple and effective environment that encourages and enables developing teams to become highly productive. During the programming period, I met my client Anne one a week. Every time after meeting the requirements changed or were added (Wells, D. (n.d.), para. 2). It is quite normal happened in the industry. So a good strategy of effectively and clearly communication skill to negotiate with client is very important for managing the project.

inconsistent spacing

Summarise part A + B + C of essay.

12 MAIN AREAS OF LEARNING

✓ I have learnt the following skills and knowledge that I gained from doing the project.

12.1 COMMUNICATION SKILLS

Because I met my client and tutors at least three times a week and we discuss issues and solution for around one hour in each meeting, which literally improved my communication skills and understand what my client want. It gives me a significance help to my career and development in the future .

12.2 DEEPER UNDERSTANDING OF JAVASCRIPT

The project provided me an opportunity to practice JavaScript developing skills. It gave me a deeper understanding of JavaScript, it also gave me an excellent training of my self-learning ability.

12.3 TIME MANAGEMENT

During the period of developing, I used MyHours to track time consuming, I learned how to manage time to enhance the productivity and effectiveness. Make a plan before working and solve the problems with discussing with industry supervisors also save time to solve issues.

12.4 GITHUB FOR VERSION CONTROL

Version control helps to avoid losing files risks. What is more, because the code update very frequently and it is ineluctable that sometimes the code needs to go back for some reasons. Such as code comparison, detecting bugs.

Version control is also the management of changing documents and codes. In the project I use GitHub repository, which is the most popular and powerful tool for version control.to control versions. I got several iterations of code shows that the project was built up step by step along the time. I left comments to give each version a brief description in order to maintenance in the future.

12.5 TECHNICAL SKILLS

- Moodle as the programs work on Moodle
- jQuery to support multi-platform
- HTML canvas skills

also; self assessment using panel rubric
and what would you do differently next time?

13 EVIDENCE FOR ASSESSMENT ACHIEVEMENTS

introduce this section

13.1 ACTIVITIES SCREEN SHOTS

See more details in file 'Evidence of activities.docx '

Diagram

Drag the cards from the bottom of the screen into the appropriate boxes. Or input the right name in the correct boxes.

Score: 9 Submit

1 2 3 4 5 6 7 8 9 10 11

pancreas small intestine appendix liver large intestine gall bladder
oesophagus anus colon stomach

13.2 GITHUB CODE VERSION CONTROL AND DOCUMENT MANAGEMENT SCREEN SHOT

See more details in file 'Evidence of maintenance.docx '

This repository Search Pull requests Issues Marketplace Explore

mingdazhang2 / Diagram Watch 0 Star 0 Fork 0

Code Issues 0 Pull requests 0 Projects 0 Wiki Settings Insights

Diagram project Add topics Edit

14 commits 1 branch 0 releases 1 contributor

Branch: master New pull request

Create new file Upload files Find file Download

mingdazhang2.html Latest commit 485621c 8 days ago

css	css	8 days ago
images	test commit	27 days ago
lib	first commit	27 days ago
src	index.html fixed	15 days ago
.DS_Store	score	27 days ago
README.md	first commit	27 days ago
config.xml	change config	16 days ago
diagram.html	found bug	24 days ago
main.html	first	9 days ago
README.md		

~~What did you~~ is this a ~~self~~ - assessment?

13.3 ACHIEVEMENTS CHECK LIST

COURSE MANAGEMENT

- ☒ established - course proposal signed off on 6 Sept 2017
- ☒ actively maintained – attend to class every time and do the work follow supervisor's suggestion.
- ☒ extensive
 - I have learnt different areas of knowledge, like risk management, time track
- ☒ exceptionally effective
 - my work is always on track
- ☒ displaying excellent control
 - make a plan of the course through the whole semester
- ☒ initiating communication throughout its execution.

THE PROJECT

- ☒ completed the project
- ☒ to the industry supervisor's satisfaction
- ☒ demonstrating an exceptional grasp of the subject.

CONTENT OF THE LEVEL 200 AND 300 COURSES

- ☒ correctly identified - all 6 courses are included
- ☒ evaluated content – see pages 13-16
- ☒ shows material has been applied in a relevant and innovative manner – see recommendation paragraphs on pages 13-16
- ☒ perceptive content recommendations

QUALITY ASSURANCE PROGRAMME see page 19-20

- ☒ created
- ☒ maintained
- ☒ applied
- ☒ comprehensive
- ☒ in-depth understanding
- ☒ critically analysed
- ☒ insightful conclusions

for example, how did you decide your conclusions were insightful.

RISK MANAGEMENT PROGRAMME see page 16-18

- ☒ created
- ☒ maintained
- ☒ applied
- ☒ comprehensive
- ☒ in-depth understanding
- ☒ critically analysed
- ☒ insightful conclusions

METHODOLOGIES ESSAY/REPORT – see my essay

- ☒ extensively referenced accepted theory
- ☒ industrial practice
- ☒ related
- ☒ exceptional standard.

REPORT

- ☒ polished
- ☒ imaginative

- ☒ clearly and fluent
- ☒ insightful
- ☒ accurate grammar and spelling.
- ☒ very full analysis of performance

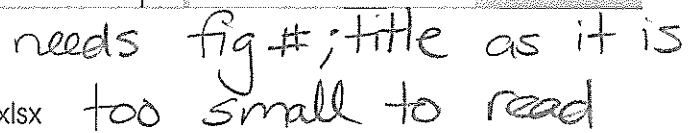
PANEL

- ☐ confident
- ☐ skilled communicator
- ☐ presented clearly and logically
- ☐ responded clearly and logically
- ☐ perception in appropriately responding to supervisors' reports and questions.













POSTER

- ☒ Imaginatively
- ☒ professionally
- ☒ displays project's outcomes
- ☒ conveys learning achieved.

Weekly Report: See details in Appendix A.doc



too small to read

 DailyPlan_w1.xlsx
 DailyPlan_w2.xlsx
 DailyPlan_w3.xlsx
 DailyPlan_w4.xlsx
 DailyPlan_w5.xlsx
 DailyPlan_w6.xlsx
 DailyPlan_w7.xlsx
 DailyPlan_w8.xlsx
 DailyPlan_w9.xlsx
 DailyPlan_w10.xlsx
 DailyPlan_w11.xlsx
 DailyPlan_w12.xlsx

Screen shot of Week 4 plan sheet

Time/Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
8:00				BCPR203 - Database Management Systems			
9:00	Meet Anne		Diagram project (Control the score base on time that answers get wrong for input type)	BCPR203 - Database Management Systems			
10:00	BCPR203 - Database Management Systems	Diagram project (Control the score base on time that answers get wrong for input type)	Diagram project (Control the score base on time that answers get wrong for input type)		Database Assignment	Database Assignment	
11:00	BCPR203 - Database Management Systems			Meet Luofeng		Database Assignment	
12:00		Diagram project (Control the score base on time that answers get wrong for input type)					
13:00		Diagram project (Control the score base on time that answers get wrong for input type)		Meet Philip			
14:00		Diagram project (Control the score base on time that answers get wrong for input type)	CE301 paper work: risks in to table			Hangman project (Easy Demo, Structural for)	
15:00	Meet Mike	Diagram project (Control the score base on time that answers get wrong for input type)	CE301 paper work: risks in to table			Hangman project (Easy Demo, Structural for)	
16:00		Diagram project (Control the score base on time that answers get wrong for input type)		CE301 Cooperative Education Project			
17:00			Diagram project (Control the score base on time that answers get wrong for drag type)	CE301 Cooperative Education Project	Diagram project (Modify the random position of points and keep the position of the boxes)		Database Assignment
18:00	Diagram project (Display score for "input" type)		Diagram project (Control the score base on time that answers get wrong for drag type)		Diagram project (Make the tool better, can create position of box)		Database Assignment
19:00	Diagram project (Computing the score for "input" type)	Database Assignment	Diagram project (Control the score base on time that answers get wrong for drag type)	Database Assignment	Diagram project (Make the tool better, can create position of box)		
20:00	Diagram project (Computing the score and test for "input" type)	CE301 paper work: statement for methodology topic in proposal	Diagram project (Modify the random position of points and keep the position of the boxes)	Diagram project (Modify the random position of points and keep the position of the boxes)	Diagram project (Make the tool better, can create position of box)		

Deliverable list: See details in Appendix C.doc

what is this telling us?

15 REFERENCE:

Extreme programming. (2017, October 20). Retrieved October 30, 2017, from https://en.wikipedia.org/wiki/Extreme_programming

Wells, D. (n.d.). Extreme Programming: A Gentle Introduction. Retrieved October 31, 2017, from <http://www.extremeprogramming.org/>

