End-Of-Project Report G17

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CONTENTS

1. INTRODUCTION

Final report for G17 of 2020.

1.1. Purpose of this Document

The purpose of this document is to provide detailed a summary of the CS22120 Group Project Welsh Vocabulary Tutor as well as its overall performance against the project specifications detailed in SE.QA.CSRS. It also provides an evaluation of the group's output as a whole and the work of each team member individually.

1.2. Scope

This document details history of the software development and evaluates how well it meets the project requirements. It also includes an overview of the tasks performed by each member of the group on software and related documentation.

1.3. Objectives

The objective of the final report is to evaluate our project, and how it went overall, and to state individual performances of each team member.

2. MANAGEMENT SUMMARY

This document details the development process behind the Welsh Vocabulary Tutor project, including both the developmental history of the software and the roles played by each team-member involved in the project. Final release of this software fulfilled its desired functions (as outlined in the requirements spec, SE.QA.CSRS), while remaining both optimized and maintainable.
Although the nature of the work completed varied between each team member,
most members involved in the project made a notable contribution to both the final software and the
related documentation. Some group members also served to fill key roles within the team,
as detailed bellow:

• Group Leader: Bartosz Samulski (bas17)
• Deputy Group Leader: Rishabh Kumar (rik7)
• QA Manager: Ben Phillips (bep40)
• Deputy QA Manager: Bartek Skrobucha (bas21)

Within the group project some of the difficulties that stood in the way of the project completion had things like time management, there was aspects of the assigning duties such as originally the list of duties was:

• Group Leader: James C Willis (jcw14)
• Deputy Group Leader: Bartosz Samulski (bas17)
• QA Manager: Ben Phillips (bep40)
• Deputy QA Manager: Bartek Skrobucha (bas21)

And the change in command in the project was a big help to the completion of the project, the original team leader James Willis (jcw14) has stepped down from the position because of lack of understanding and other personal reasons with the project, therefore Bartosz Samulski (bas17) took over as group leader of the project and then there was a good commander in charge of the project as before there was no clear line from the management of what was going on in terms of the project. This pitfalls in leadership at the start of the project did consume a lot of time, considering as there was little to no communication in the team during this change of leadership. After the change of leadership, the team got talking more and were ultimately more productive as it was better for the team to have this change in leadership to help with the project completion.

In the beginning days of the project there were a lot of difficulties excluding the management problems. Some people not understanding the software we had to use for the creation of this project such as the use of JavaFX and the new unfamiliar software stunted the group at the start, as we were very inexperienced with this and new routines of working in a group. This was a problem from the start but was not controlled until the change of management where there was an increase of group communication to allow us to get ourselves into a good standing point to finish on appropriate deadlines. The increase of communication allowed people working on different aspects of the code to communicate more sharing ideas and helping each other out with accordance to the project leader or deputy. This allowed the projects programming to be assigned to right people and then help would be provided or roles would be swapped if there was any problems, with others who had better understanding of the role in hand then someone else, all in the thoughts to help the group to be ready for the deadlines.

Every document was thoroughly reviewed by our QA team and carefully updated after all the feedback we got from Chris.

When programming the practice games, the main problems encountered was with creating the match words and translate game. There were a few problems with these 2 games as we completely forgot about them until integration week, so we did not have a proper design. For the translate game, this was not really a problem as all we needed for that was a text field and a button that would check if you input the correct word. For the match words, the problem was with how the words would be matched. The first idea that we came up with was having lines connect the buttons on the screen, however since we did not do any work on it in the previous weeks, we did not know JavaFX well enough to do this. Eventually we settled on having each button be associated with a colour and have these colours show the matches.

At the start of the project the team lacked massively in communication that therefore was the downfall of the project at the start, there were groups that would split of into groups of 2's or 3's to work on the code together in their own time but the communication was with the rest of the group about what happened and what was done. This was a problem as people are just getting used to the new way of working, with how to act and having things done in accordance to a different kind of atmosphere in the working environment. This problem was later resolved when the group started to get in better rhythm when people would communicate more on what they are doing.

3. HISTORICAL ACCOUNT OF THE PROJECT

At the beginning of the project, Group Leader role was occupied by James Charles Willis(jcw14) with Bartosz Samulski (bas17) as a Deputy Group Leader but Group Manager decided we need a change in a Leadership since he was unsatisfied with previous James efforts as a Team Leader.

This was in effort to have a clear layout of what everyone was doing on the project but the main downfall in this idea was James Willis understanding of the project at the beginning. Later, he was demoted due to the lack of commitment and contribution towards the group. Following this, leadership changed electing Bartosz Samulski (bas17) to take over as leader of the group, with his new deputy Rishabh Kumar (rik7).

This was big positive impact to the group's overall running of the project as Bartosz and Rishabh had an idea of what to do with the management of the project. They were familiar to the job as well as Rishabh being a key member of the group that was also working on the Architecture documents and had a good background of coding. Therefore, this team together sorted the group out to get better on top of things for the benefit of the group overall. Their efforts allowed the project to run smoothly and on time for all the deadlines to come and there was a much better handle on the project. They deserve a lot of praise as they have managed to work exceptionally considering the COVID-19 pandemic that forced the group to divide, having some members of the group to have to return home. So, having some group members all over the world while the project is still going communication was key in this project without the unforeseeable circumstances. They met the expectation as they still had good communication skills to get all the programming for project to be delivered on time even throughout the pandemic. The resulting problem was as people had to go back home or were on lockdown it made it hard for some group members to do some work or keep in contact in case they had to fly home or had other troubles with living arrangements through this unexpected circumstances.

During the project we used Discord to keep in touch with each other and keeping track on who was working on what tasks and reported mistakes on it for the relevant team member to fix. On top of the weekly tutorials we all met as a group several occasions in the library to discuss our work. Some group members had also smaller meetings with one or two group members that were working on the same or similar task.
As the COVID-19 pandemic begin we had to change our approach everyone had to work individually from home using mentioned before Discord server as a form of communication with other team members.

4. FINAL STATE OF THE PROJECT

WelshLearningApp is a program which let users learn welsh by playing multiple games or by using the dictionary to understand the translation of a specific word. The program fulfils most of the requirement specification. However functional Requirement 3 was moderately met. The search functions face some difficulty in sorting words if there are multiple words with common letters. For example, while searching for "pen", the search function will search and sort the words which begin with "pen" however it fails to prioritize the word if there is an exact match.

There are few minor flaws in the FXML files of all the games, the "Home" button does not work. There is a minor fix to this. The function behind it was commented out which need to be reinitialised in order to fix this.

Within the MatchWord and GuessWord games, there is a minor defect, there is no minimum number set. MatchWord requires minimum 4 words to start the game similarly guessWord requires 6 words minimum, as there is no minimum limit set, an error occurrence is bounded.

5. PERFORMANCE OF EACH TEAM MEMBER

5.1. Bartosz Samulski (bas17)

Bartosz was a key factor to this project's success, he met all expectation while working on this project originally being Deputy Group Manager. Working on the JavaFX code and documentation for the project then taking over as Group Leader when James Charles Willis (jcw14) got demoted from the job he took it over and got the group in a much better standing point for completion. With the assistance of his new deputy Rishabh Kumar (rik7) they had complete control of the group and the project throughout the pandemic and still managed to have good understanding of what the group needed to complete and how to do it. He was able to take over the group in this time and still managed to keep up moral in the group while being efficient in the overall outcome of the project. He took responsibility for the group in very challenging conditions and smaller timeframe and still managed the group within the timeframe to complete on time. Without his effort in taking over the management his contribution to the project's success was instrumental to the overall completion of the project.

Blog link: https://bas17.design.blog/

5.2. Rishabh Kumar (rik7)

Rishabh worked exceptionally hard on this project, he was a key factor to this project success, contributing extensively to both the code and documentation. He was responsible for an Architecture and design of a working prototype. During the Integration week he was responsible for most of the code in the backend as well as implementation of the project. Rishabh provided much needed support in leadership as a deputy Group Leader, even before he was assigned that role, he motivated other group members and made sure everyone was on a right track. He always completed assigned to him tasks and dedicated himself to the project from the beginning to the very end. His contribution to the project's success was invaluable and I truly believe we wouldn't succeed without his contribution. Rishabh went above and beyond in the success of the project he coordinated a lot of the coding and helped all the group members when he could and was a big asset to the team and its completion he also rose to the aid of Bartek when taking on more responsibility when taking on the Deputy Leader roll and getting the group ready for hand ins and deadlines in preparation for the final submission.

Blog link: https://rishabhkumarblog654753086.wordpress.com/

5.3. James Charles Willis (jcw14)

James originally was elected by the group to be the Group Leader by popular vote, he had this role for most of the project but due to lack of contribution and communication with the group, was demoted with accordance to the Group Manager (Andy Starr). James received a yellow card for his lack of participation in the project. He struggled with a lot of the understanding of the project yet was out of contact of the group members. James only set up the Group links to their websites, he managed the overall site for the other group members to have their blog links in and it was his job to make sure that was set up and running smoothly for the duration of the project as well as some aspects of the final report.

Blog link: https://jcw14cs22120photography.photo.blog/

5.4. Ben Phillips (bep40)

Ben was assigned a role of QA Manager and he fulfilled that role in every aspect. He was taking care of detailed minutes from every meeting he was a part of, and he distributed them to the group as soon as that was possible. Ben and Bartek(bas21) carefully reviewed every document and pointed out parts that were not up to standards. One of his tasks was also to set up groups GitLab Repository. Ben was also in charge of keeping the GitLab Repository up to date and fixing any problem that may have occurred through the lifetime of this project. Ben being the QA Manager he worked in close coordination with his Deputy as well as the Group Leader to make sure no deadlines were missed and the group would still complete all there tasks for the client on time, as well as correctly screening the documents in the audits carried out by the QA team.

Blog link: https://war586.wordpress.com/

5.5. Bartek Skrobucha (bas21)

Bartek as a deputy QA Manager helped Ben with his tasks and they worked well together. He always made sure everything was in the right places in GitLab Repository also thoroughly checked provided documents. I don't think Ben could have done his job as well as he did if it wasn't for Bartek and vice versa. Bartek also wrote J Unit tests and helped Juraj and Rishabh with integrating code. At the beginning of the project Bartek was asked to find out how to work out some coding problems that the team faced when coming to the systems architecture. As Deputy QA manager Bartek would schedule team meetings for auditing some of the documentation alongside Ben, as well as maximizing his efforts to help the other team members to finish the design spec document in accordance with his other assignments.

Blog link: https://bas21groupproject.wordpress.com/

5.6. Ryan Bloor-Walsh (ryb11)

In the beginning of the project Ryan couldn't attend most of scheduled meetings due to a persistent medical issue. Despite of that fact, Ryan always finished his assignments. His main assignments were to prepare Testing document. He also contributed heavily to the JUnit tests within our software. His main struggles were with communication with other team members but other than that Ryan was a valuable asset to our group. Ryan was a key factor to the completion of the testing documents even though all the missed meeting and medical problems even the COVID-19 pandemic he always finished his assignments on time and in accordance to the QA teams. He also prepared Project Test Report.

Blog link: https://ryb110.wixsite.com/cs22120

5.7. Federico Comitini (fec11)

Federico really worked hard on this project, contributing to UI documentation and UI presentation. He was focused on his assignments, showed up to the group meetings and always was looking for some way to contribute to the project. He is responsible for majority of comments in our code which he wrote while looking for mistakes in code. Federico also set up our group Discord server which was our main platform for communication especially during the lockdown due to COVID-19 pandemic. It was to his efforts that we were in such a good standing for the ending of the project with his suggestion to the group originally. He is a very hardworking individual who greatly helped us finish this project. Federico also was in great effort to carry out some spike work for the team.

Blog link: http://www.federicocomitini.com/

5.8. Juraj Borka (jub27)

Juraj distinguished himself in this project, both as a highly competent coder, and an all-around hard worker especially during Integration week. Juraj worked with Rishabh on Architecture document and was responsible for integration of practice games UI in our software. He managed to eliminate most of the bugs in and played a key role in our group success. He was always present in group meetings and really cared about groups success. Juraj always finished his assignments and he was motivated to get our group to the finish line. Undeniably a very important part of this team success.

Blog link: https://jub27designs.design.blog/

5.9. Brandon Barclay-Knight (brb19)

Brandon is an individual always eager to work and work hard. During Integration week despite the fact he was working as a volunteer for NHS, every day he showed up and was looking for new assignments and trying to help in any way. His main tasks he has done in the project was the UI specification document, that included the potential users, drawing up a use-case diagram. He also was writing potential errors and how we would deal with them. For the design document he was responsible for component diagram. Brandon was a great benefit to the team's success even with his problematic situations through the pandemic he produced and coordinated the project maintenance manual for the group.

Blog link: https://brb19.design.blog/

6. EVALUATION OF THE TEAM AND PROJECT

How did the team perform as a whole?

The team performed immaculately in terms of effort put into the project even with some major pitfalls in management. There was still a lot of effort put in but with issues of lack of understanding, therefore there was some time managements issues throughout early management of the project. Once this was resolved the group did very well with communication and overall project completion within the deadlines. Considering the unforeseeable COVID-19 pandemic that added to the overall stress on the group forcing group members to have to rush home or help coordinate their work while in lockdown in their own countries or the towns they reside. This was an unexpected situation that the group responded to with a large amount of input from key members of the group. We managed to overcome this pandemic with increased comminution and keeping up groups moral to carry on doing the work with the allotted timeframe, still available to us, to use in order to complete the project on time. The group worked well as a team from beginning to end, only issues mainly occurring with the team's performance was the change in management as the group had poor communication skills before the change in leadership of the group after this the group was communicating much better. While still being productive allowing people to finish their assigned tasks then allowing extra time for the work to go through the QA team to be checked before submitting any work to the client.

How could the project that was set for you have been improved?

The project could have been improved without a doubt. There was a lot of misplaced information and lack of information around the start of the project, when reading the assigned documentation. There was a lack of understanding of what we were supposed to be doing, various members of the group kept asking the Group Leader and the management team, what they were meant to do even after reading the assigned documents. At the start of this project it was very hard to get our heads around the work. When we got extra help from outside the group (Chris Price) then we had a better understanding of what we were meant to do. When we were seeking for extra help, by making the points of the document clear and precise of what they are asking to be produced.

There were lectures that came in accordance to this, when we needed help some of the slides would help us to think about or explain how to do the work we were assigned to as our group had the main problem with management and understanding in relation to this the lecture slides about management were released late in the duration of the project. The original team leader had a hard time to work out how to run the group with no real experience to the job before this was quite confusing. Only later when the change in the groups roles and new management was selected there was any helpful resolve.

As the last lecture to be posted (lecture 17) was supposed to help the project management and we had a lot of issues at the start of the project of how it should be run while working out what is needed. This lecture would have been a great help to the management if it was released earlier as it would have given a new idea and a better understanding of how to manage a team in a group project. If this was released towards the start, then there could have been more time to understand how to lead a group for any first-time management Group leader or Deputy.

What were the most important lessons learned about software projects and about working in teams?

One of the main lessons that have been taught to us in the terms of software projects and working in teams, is that there need to be a good structure for communication and management have a lot to work out in accordance to what each person is assigned to and making sure they keep up with the group to complete the task in preparation to complete things specified by the client who has set for the team.

It has given other lessons, such as to think what the client wants, therefore we do not have to overthink, and we can fit the requirements. In accordance to the clients wishes, we must fill the requirements list to total completion instead of thinking what is better to do, we had to think what the client wants us to do. Therefore not creating more work than it is necessary to make sure we have a good product for the client to use for their intended purposes, this was a hard lesson to learn as we had to do thing in specific ways to fit the requirements set out by the client. This has helped us to learn how to interact with a set of rules and structure to a daily working environment to complete a task on time in normal business environments.

REFERENCES

DOCUMENT HISTORY

Version	CCF No.	Date	Changes made to document	Changed by
1	N/A	28.04.2020	Initial Creation.	bas17
2	N/A	04.05.2020	Evaluation of the Team added plus updates to Historical account of the project and Management summary.	jsw14
3	N/A	05.05.2020	Changes after grammar mistakes found.	bas17
4	N/A	05.05.2020	Final state of the project added and Management summary update.	rik7
5	N/A	05.05.2020	Reviewed by QA	bep40