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| IT7351 Project |
| Web to Print |
| Closeout Report |
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| Hema Pasupuleti, Helen James, Chesda Reth, |
| 22 October 2103 |

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| *Acknowledgements: The team would like to acknowledge the participation and assistance given by the client, Peter McCarroll of Copy Express Ltd, the Project Advisor, Steve McKinlay and the project Auditor, Robert Sutcliffe.* |

Contents

[Executive Summary 2](#_Toc370218922)

[Introduction 3](#_Toc370218923)

[Project Summary 3](#_Toc370218924)

[Inception Phase (4 July – 31 July) 3](#_Toc370218925)

[Elaboration Phase 1st Iteration (1 August – 20 August) 5](#_Toc370218926)

[Elaboration Phase 2nd Iteration (21 August – 30 August) 7](#_Toc370218927)

[Elaboration Phase 3rd Iteration (31 August to 10 September) 8](#_Toc370218928)

[Elaboration 4th Iteration (11 September – 8 October) 9](#_Toc370218929)

[Transition Phase (9 October – 22 October) 11](#_Toc370218930)

[Statistical analysis of hours worked 12](#_Toc370218931)

[Milestone Summary 13](#_Toc370218932)

[Change Control Summary 14](#_Toc370218933)

[Summary of successes 15](#_Toc370218934)

[Summary of failures 15](#_Toc370218935)

[Summary of Lessons learned 16](#_Toc370218936)

[Conclusion 16](#_Toc370218937)

[Reference List 17](#_Toc370218938)

# Executive Summary

This report covers the project management review and analysis of the Web to Print Weltec IT7351Project completed by Chesda Reth, Hema Pasupuleti and Helen James during Semester 2, 2013.

The aim of this project was to find a suitable Web to Print service for Copy Express Limited, Petone. Copy Express is a small to medium sized print business dealing with various printing needs including Business cards, Flyers, Banners, Brochures and specialised one off print products. There are a large number of companies that provide Web to Print software in the form of either a cloud based SaaS (**S**oftware **a**s **a** Solution) prescribed service or a package to be deployed on your own servers (Licence based).

The key focus of this project was to analyse and assess the current Copy Express system status (functional and technical), asses their future requirement based on their desired business growth and market strategy and propose a feasible solution.

We a team of three WelTec students utilised our skills, knowledge and experience gained by our study and life experiences to set about utilising various tools, techniques and applying a methodology. A large amount of our time was spent on researching the internet, communicating with solution providers, having online demos and assessing each and every solution to the client’s requirements. Since we had selected to apply the RUP methodology and use case based testing procedure, the project was divided into relevant phases. Each phase resulted in fine tuning of our research by eliminating potential solutions that did not meet the analysed requirements. We documented all the findings, strengths, weaknesses of both Discarded & Continued solutions as well as our experiences throughout the process.

By the time the project progressed to the final Transition phase we had successfully found and recommended a solution which fulfils the majority of the requirements and had worked towards minimising the impact of the requirements that were not met. The recommended solution had been thoroughly tested and reported on and the team also had developed a CSV macro to integrate the recommended Solution (OnPrintShop) to the Xero accounting system; that the client can later adapt if he chooses to.

The project process has allowed the team members to apply their knowledge to a real world situation. Each member has a better understanding of a business seeking growth by the use of technology and of the importance of good requirements gathering, accurate and thorough testing and sticking to a well prepared project schedule.

The team displayed professionalism, support, dedication, commitment and co-operation throughout the term of this project; this applied within the team itself as well in all our external dealings and interactions contributing to the project success.

# Introduction

The Web to Print project was initiated to meet a combination of needs. The team (Helen James, Hema Pasupuleti and Chesda Reth) had a need to engage in a project as a requirement for the Bachelor in Information Technology study we were participating in. WelTec had a need to provide the BIT students with a project to fulfil the IT7351 curriculum and Peter McCarroll of Copy Express Limited needed research towards finding, and perhaps installation, of a suitable and affordable Web to Print solution to expand the services his business provides and gain market share.

Web to Print is an online cloud hosted service that provides the print industry with the opportunity to automate their print ordering process and improve their workflow as well as customer base. This project was focused on research investigation to find a suitable solution for Copy Express Limited, a small - medium sized print business located in Petone, Lower Hutt.

On initiation of the team and during the WelTec bidding process it was agreed that Helen would be the contact person for Copy Express Ltd and the project manager, all the team members were comfortable with this decision.

In this report we talk about how we, as a team, worked through various phases of the project life cycle from inception to recommending a final solution and project closeout.

# Project Summary

## Inception Phase (4 July – 31 July)

The team met with the Client during the term break as Peter McCarroll had indicated that he was going overseas on a Business trip. We didn’t have much time to prepare, but at least managed to look at the Copy Express Website (Copy Express Ltd, 2012 - 2013 ) and work out what services they supplied. We felt very green and were not sure what to expect; luckily the client (Peter McCarroll) had given the project quite a bit of thought and he had quite a list of requirements. We asked lots of questions and got a lot of clarification, it was a good start. The minutes we produced from this meeting became the basis for our requirements analysis and were able to be used as such in our Proposal, it was worth the effort. We came away feeling inspired, but being the first week of the semester break that inspiration was soon diminished.

It felt good to have a head start, but it gave us a false sense of security when we got to week one! We felt we had “got going” early so didn’t need to put in the hours, we could build up to it like we usually do at the start of a trimester, plus we felt we hadn’t really had much of a break, little did we know what we were in for during the weeks ahead; our few hours’ work in the holidays would seem like a month’s vacation in comparison!

We confidently agreed that we would meet on Monday’s at 9am and Fridays after the Project tutorials, it was only a matter of weeks before this changed to 12 noon on Tuesdays and Thursdays after our Software Testing lectures and tutorials, we soon learnt that having full days at home to do some solid work was more effective than unnecessarily travelling in for a team meeting. We also felt we didn’t need a team contract as we were all dedicated students that wanted to do well, this was a mistake, there were times that later arose that we could have used this as a leverage, and in fact we did later type one, but never signed it or enforced it so it was basically ineffective.

We set up our Dropbox (Your stuff, anywhere, 2013)and loaded our timesheets and any work. Right from the start we communicated by email and text, we worked at home for convenience sake as well as for the need of good internet access which WelTec does not provide. As three individuals that were used to working alone, this suited us! It soon became very apparent that we all liked to work at different times of the day based on our individual circumstances and personal preferences. Modern technology and file sharing made this all possible, although the motivation factor was more difficult to control as this type of work routine relies on the team members being disciplined and self-motivated. Right from the start, work that was promised to be done by the next meeting was often not completed and occasionally not even started; we should have tried harder to address this and to deal this situation professionally, but we opted for the friendly approach. We soon learned that some people need the pressure of a deadline to motivate them into work, while others are more comfortable to chip away at it, once we established how each of us liked to work we felt more comfortable with the team dynamics.

We decided on the Rational Unified Process methodology, we felt that it would work well with this project and that its adaptive nature would allow us to make any changes required. We also thought that Use Case Scenarios were a good approach for testing potential Software as a Solution (SaaS) cloud based solutions. We had downloaded a RUP guide ( Rational Software, 1998) and decided to use that as a reference. On reflection this methodology did work well for us, although we didn’t use all of the phases and all of the iterations did not completely match the guide, it did give us a good overall strategy to base out project plan on. We prepared the initial project Gantt chart with entries to match the RUP methodology, the initial version was a skeleton for the upcoming project we appreciated that we would update it at the beginning of each iteration as well, in reality, many more times in between.

With our Client away on his business trip, we struggled to know what to do next, so we worked on a large portion of our analysis to include it in the proposal. This was something we felt that we knew how to do and we needed the hours, we included more than the recommended 20% analysis in the proposal. We struggled with what many of the sections of the proposal were all about, but each of us took sections and did our best to produce a quality document. It took longer than we had planned because of our uncertainty, but our fear of failure kept us working towards its completion, our efforts were rewarded with a reasonably easy proposal review with only a few changes to be quickly made before our Client meeting the next day (our original proposal review had been postponed).

On the 1st August we had our second meeting with the client, we had hoped that Peter would sign the proposal at this meeting but he asked for a few changes to the proposal, which was reassuring as he had at least read it. We took this opportunity to ask the Client to prioritise some of his desired solution features so we could create a priority ranking matrix. We also asked him to identify any websites that he had previously identified and discarded so that we didn’t waste time on them, he didn’t have any. Having set tasks for the next meeting our work load increased although we were still struggling to do enough hours, it seemed like there was too many of us on this project, the majority of our time was spent scanning the internet for potential SaaS solutions. At this point our record keeping was not as good as it could be, we often forgot to record all of our research, to date it or to add comments that would have saved us time in the future, this is something that improved after our first audit.

Although the Proposal was not signed on schedule, we now moved into the first iteration of the Elaboration phase, according to the RUP methodology there was some allowance for overlapping of iterations, apart from the few amendments to the proposal the work planned for the inception phase was complete. We now typed up a brief progress report for this phase and realised that we had not prepared a risk analysis at its onset, we decided to do this for the next phases and each iteration of them.

## Elaboration Phase 1st Iteration (1 August – 20 August)

On reflection our initial risk analysis was very brief, we were struggling to recognise risks for a project that wasn’t costing the client any money and an iteration that was mainly research.

In keeping with RUP methodology we should now have been doing the bulk of our analysis, having done so much for the proposal we were ahead of schedule, but were aware that it contained some shortfalls. We realised that we did not fully comprehend the physical size or the behind the scenes workflow of Copy Express, we requested a tour of the print shop and Peter agreed to include it in our next meeting.

On the 8th of August we had our third client meeting with Copy Express. With the amendments made to the proposal Peter McCarroll signed it as required for our first milestone, and the official completion of the Inception phase. As promised Peter gave us a comprehensive tour with explanations of his print shop and processes; in hindsight we should have done this at the first or at latest second meeting as it put the business problem in perspective for us, we suddenly realised that this was a small business looking for an economical way to gain growth, to consider expensive options would not be a strategic move for Copy Express. We now understood Peter’s price requirement and could visualise their work processes and machinery.

For this meeting we had aimed for each of us to suggest three solutions and briefly talk about them to get a feel for what Peter likes; the reality was that we provided information and screenshots (one each- EditandPrint (editandprint webtoprint with a twist, 2013), ePrint (Hexicom Software Pty Limited, 2013) and Zetaprints (ZetaPrints Ltd, 2006-2012) of our favoured options and talked about others that we had seen but thought were too expensive or hadn’t heard back from yet. We displayed these in the format of a comparison chart with the relevant features and prices indicated. This visual representation of all of the web solutions we had found worked well, Peter was quickly able to see how many we had found and talk about any he had heard of or thought he knew would be too expensive. He questioned why we had overlooked OnPrintShop (Radixweb, 2013) (the finally recommended solution) and we commented that it was Indian based and we had concluded would be difficult to deal with, of course we were later to find out that this was actually the most helpful supplier we came across.

This was the point in time that we realised we needed to develop some legitimate test cases and a way of ensuring we would be consistently evaluating and testing our chosen websites. In keeping with the RUP methodology we were able to use the Use Cases from our event tables, we added to these, wrote up full use case descriptions and gave them a ranking using the priority chart filled out by Peter on the 1st August (saved as *Use Case Priority Ranking* chart). We created a *Potential Solution Evaluation Results* template to record the test results as well as a *General Requirements Criteria* chart to compare the three solutions being presented and as an afterthought we used *the Proposed Requirement and Functionality* list from the proposal to indicate any lacking requirements that may have been missed in the testing. These three templates worked well although there was some uncertainty that the scores on the *Potential Solution Evaluation Results* were comparable in the first round. This was because of variations of the interpretation of the Use Cases by each team member as well as the interpretation of how to score them when an actual demo site was not provided.

Ideally one person could have filled out all the results for all of the sites tested (or all of us do all of them), but we didn’t do this. We had discussed in our team meetings the approach we would take but only later realised that we should have prepared a formal test plan rather than a verbal one. This was done in the 2nd Elaboration Iteration, a bit later that ideal. It records the method we used and we signed it to acknowledge its importance. The templates were updated at a later date but were reused in both of the following iterations.

On the 13th of August we had our first Advisor Meeting with our team advisor (Steve McKinlay) and we took the opportunity to discuss our concerns about the need for 32 hours a week and our lack of having enough to do to fulfil those hours, looking back of course there is many things we could have spent more time on if only we had realised what they were or how to approach them at the time e.g. better test plan write up, better risk analysis and weekly summaries etc. We were relieved that Steve agreed that the RUP Methodology was a suitable choice for our project.

We had participated in an online Webinar Demonstration for ePrint and given access to their demonstration Management Information System and a linked storefront. This was the first real software trial we gained access to and it provided real insight to what was available. This meant that testing was more extensive for this site than the other sites presented to Copy Express on the 20th.

On the 20th August we had a Client Meeting, this meeting was stressful before it even started, the team had left too much to the last minute! 15 minutes before the meeting we were printing out documents, a valuable lesson was learned and we never cut it that fine again. This meeting also highlighted the teams nervousness at representing Copy Express to suppliers, Peter urged us to openly use his name and website to gain access to the required information and to take the extra step of approaching suppliers by email or phone rather than just reading the webpages which some of us had not felt confident to do beforehand.

This meeting also started to highlight that the Client was prepared to forgo quite a few requirements in order to gain an excellent online editor (nicer customer experience) and a good price. ePrint had an extensive MIS but lacked the online editing and linked templates and Fotolia (Fotolia, 2004 - 2013) library of EditandPrint.

The feedback from the client concerning two of our Use Cases being wrongly defined prompted us to apply some change control; we were almost relieved that we would have the opportunity to demonstrate we understood this process.

Peter signed off the demonstration and this minor milestone signified the end of this iteration.

## Elaboration Phase 2nd Iteration (21 August – 30 August)

The Client meeting spurred us on and we actively started to request webinar demonstrations or access to demo sights. We discovered that OnPrintShop was the mother company of the Australian EditandPrint company that we had been working on earlier, we also discovered in a webinar that EditandPrint was designed to pick up orders that would be sent to a Queensland Printing Company for further processing rather than printing the work yourself; this was unsuitable for Copy Express.

We made contact with OnPrintShop, watched a Webinar Demonstration and gained access to their demo sites. Having a mixed background (cultural/ethnic) team members gave us an advantage dealing with this Indian based company we were able to overcome any language barriers that we may have otherwise struggled with.

Having abandoned EditandPrint Chesda spent some time loading ZetaPrints onto his personal website to assess its value as a free install pay per order option.

Each team member prepared a presentation on their chosen web solution; we only had to update our previous ePrint one which worked out well as it left one of us free to attend to more Project Management duties which was good as an Audit was looming and we wanted to make a good first impression. Meanwhile we were still following up on any new or outstanding SaaS potential solutions.

Our first Audit was on the 21st of August; as expected we had the following improvements to apply;

* The minutes were good but should match the headings (structure) to the agenda; explicitly list the matters arising from the previous minutes with the date and person in the next agenda.
* Use a template for the weekly progress reports rather than the running commentary we had been using - we had been under the impression that the templates were optional, but were happy to change our approach. When showing Robert our team minutes he said we didn’t need to document them so formally (in the running commentary) but we continued to do so as we didn’t have this in writing.
* We needed to catch up on our hours and check our motivation.
* Add dates to our research work.
* The separation of emails was good
* Need to apply version Control and have supporting documentation of our method, no need to back date anything.
* Only one person (Helen) to create the backups of the electronic records

We took on board all of the above and continued them throughout the project.

On the 30th of August we had our 4th client meeting where we represented ePrint, ZetaPrints and EditandPrint with our updated materials and introduced OnPrintShop to client. At this meeting the options were narrowed down to OnPrintShop and possibly ePrint. The client asked us to carry out further testing on both OnPrintShop and ePrint and to present a full demo to himself and his designer at the next meeting, he expressed that if ePrint couldn’t supply the editable template demo in time then we may need to leave that option and concentrate on OnPrintShop. The client asked us to investigate the use of Magento (an open source editing tool that is combined with Zetaprints) to see if it could be used on its own. He also approved the change control documents to update Use Cases 33 and 34 from the proposal and re-label them as 33a and 34a.

## Elaboration Phase 3rd Iteration (31 August to 10 September)

In the team meeting we discussed our concerns about doing a live demo on behalf of the provider as opposed to the trained salesman because we felt that they would do a better job than us; we were being pushed out of our comfort zone but we knew we would reluctantly have to do our best.

We decided to look at using Testlink to record our test results of the websites we have tested and Chesda offered to install the software on his website. After loading some test cases on the site we realized that the test case steps would be different for each website and that Testlink was not going to add the value to our final reports that we had hoped.

We had a webinar with B2C print but thought they were not worth pursing because it was too expensive.

We conducted a phone interview with one of the original ePrint customers in Perth to determine the value that a similar print company to our clients had gained from subscribing to them; this gave us some valuable insights to its strengths and limitations. We were able to report these back to the client at the next meeting.

We created 3 scenarios to use for the live demonstration of ePrint and OnPrintShop; we practiced running through them and created documents with screenshots of the steps taken to do each scenario; these were later left for the client’s reference. We also created some walkthrough videos testing both ePrint and OnPrintShop in case the internet is too slow at the clients meeting.

Having learnt the need for good preparation at earlier client meetings we agreed to spend a few days before the meeting going through the demos and critiquing each other’s work. This was a case of the best plans going awry! The first day we arrived at WelTec we could not find a free computer or even get our laptops to connect, it was a busy day at the campus, so we agreed to meet the next morning before the meeting, we arrived in plenty of time and secured three Library computers, we thought we were set! Unfortunately OnPrintShop had updated their demo site overnight and added features that were not there the day before, when trying to step through the Scenarios the WelTec library internet was so slow that it became ridiculous! We headed for the Client meeting knowing that at least we had practiced at home and we had the screenshots and demo videos.

We were expecting to connect to the internet and use our laptops to demonstrate the web solutions. However the Client wanted us to use his projector and keyboard. This was unfortunate, the screen resolution was low which meant we could not see the entire web page, we had to constantly scroll to find buttons and links that seemed to have disappeared; it was very off putting! We had trouble with his mouse on his meeting table and issues with his out of date Internet Explorer. We could see the frustration on the clients face and we felt embarrassed and annoyed, it was a lesson in checking the available technology well before a live demonstration. On reflection we should have taken the initiative and insisted on changing to our laptops, but we didn’t have the confidence to do this. This meeting was probably the lowest point of the project.

## Elaboration 4th Iteration (11 September – 8 October)

As the project entered into fourth Iteration we started to feel weary from the work pressure and at the same time we were bit disappointed that the project had not progressed as we had initially planned.

Our second audit was on the 12th of September, and we had the following improvements to apply:

* Write up a progress report for each week. The weekly summary template we had been using since the first audit was not the one he wanted us to use.
* We were still 1/4 weeks behind with our hours. There are some issues with forward planning
* We all needed to write what we have learnt on the day in their personal diaries.

We mentioned to the Auditor (Robert) that the client had been busy and that he had not replied to our email to arrange a meeting and Robert suggested that we spend time trying to solve the problems with the proposed systems, we took this suggestion on board.

While we were waiting for client’s decision about which Web to Print solution he wanted to go with, we utilised the time by looking at BPMN (Business Process Model and Notation) and its potential use in the project. We researched whether the BPMN technique could be applied to the project, if it could then where, when and how we could apply this technique? We decided that it is not applicable to the project at this time, but it was interesting to see another approach similar to UML.

In this iteration good amount of time was spent on researching any further possible solutions apart from what we have already looked at. The client was not fully in favour of any one solution at the moment. The OnPrintShop solution provides good store front fulfilling majority of front end requirements but was not fully satisfying their backend workflow management, whereas ePrint’s front end was not that robust but their backend workflow management was excellent. The client had expressed that he liked the store front from OnPrintShop and the workflow management from ePrint. This prompted the team to have one final round of research for any potential solution where we can find both storefront and backend workflow management and fulfils most of the key requirements.

We had also turned our focus to finding ways and techniques to provide solutions to compensate what OnPrintShop Platinum Pro solution was not able to provide. We started to look at uploading invoices into Xero Accounting system (Xero, 2013), better work flow management at the backend and auto email responders, batch processing of invoices into Xero. If we could find solutions to these requirements then there was a strong possibility that OnPrintShop could be the final solution for Copy Express.

We researched hoping to find possible ways to incorporate MailChimp (The Rocket Science Group, 2001-2013) or similar type of auto responders where client can send auto reminder for reorders, which is lacking in OnPrintShop. There was monthly payment option with MailChimp that would allow the use of Auto Responders, which we later found out the client paid anyway! He had never mentioned it and we had failed to ask.

Along with MailChimp research we researched Xero API to get an understanding of what an API does and how we could integrate or export the invoices downloaded from OnPrintShop into the Xero accounting system.

We were able to successfully develop a macro prototype which can successfully extract invoices from the OnPrintShop CSV download and create an invoice suitable to upload to Xero. This was a success for the team as well as an advantage for Copy Express in relation to cost and time. Necessary user documentation was also prepared to support the development and for future reference.

Through our research we came to a conclusion that there are no open sources or cost free Management Information Systems that were suitable for integration with OnPrintShop and the client might need to rethink about cost effect on the budget, if he decides to pursue this further.

We pretty much knew that the solutions we found in the previous iterations were the best available solutions in the market compared to Copy Express requirements. As we continued our research we identified W3P (printing.com & w3p Limited, 2013) could be another possible solution. But it had some draw backs like cost, and it is a large UK company not serving pacific region until later this year. But it certainly has got good front end and backend features. The team spent some time testing this solution and prepared a demo video of W3P and a PowerPoint presentation to present to client..

We received further communication from OnPrintShop about their new developments and upgrades. The major development was better work flow automation at the backend where jobs folders were downloaded and sent to hot folders directly for printing purpose. Earlier this had to be done manually. This process will eventually save lot of time, increasing efficiency by reducing human errors. Since this is an add-on feature it came at an additional cost of another $1000USD, on top of earlier mentioned price. The team decided to present/inform this new development to client in our next meeting.

In this client meeting (1st August), we presented our feedback from OnPrintShop latest developments, a quick run through of research results of MailChimp reminders and Auto responders and Xero API integration of CSV files. We also presented W3P which he confirmed our thoughts that it was too expensive; but we felt had been worth showing him what was soon going to be locally available. So a final decision was made by the client and he advised the team to concentrate on OnPrintShop.

We were also advised that we need to look into Copy Express pricing method which was provided to us earlier and work out how we can set up various pricing options for various products. We spent the next week looking at the pricing chart and how to apply it to the OnPrintShop demonstration sites and refining the Xero CSV integration macro prototypes. On the 8th October we presented these to the client and discussed our findings for the pricing. We realised at this meeting that we had not put enough effort into the pricing, we had miss understood the depth of the clients requirement and had found his pricing schedule quite confusing. We offered to spend a week with the whole team working on it and he seemed satisfied with this offer, the client took the opportunity to explain in more depth what his concerns were and we felt better prepared.

With only one task left to complete we decided that the project could progress into transition, there was not going to be a construction phase.

## Transition Phase (9 October – 22 October)

For the next couple of days we worked hard trying to understand Copy Express pricing system. We created products and set up prices and tested the prices set up by other team members on the OnPrintShop demo sites.

This was very crucial phase in the life of project as well as for the team members as we were coming closer to the end of the project and we needed to prepare ourselves for the project handover and close out. We were under pressure to prepare necessary documentation for the project closing and we were feeling stressed out too. Taking support, motivation and encouragement from each other at this time worked well.

We were working hard counting on each the dropbox and emailing continued to work well for us. We had scheduled our final meeting with client for one week after the last one so we had limited time.

The final Client meeting was on the 15th October, we were well prepared and felt happy with the work we had done. We gave a PowerPoint presentation to highlight strengths and weaknesses of the OnPrintShop SaaS, we discussed what would and not work with the Copy Express pricing schedule and we addressed any outstanding queries from the previous meetings. Again we had prepared a visual representation of what the various pricing options had to offer and this seemed to work well, the client got a clear understanding where his money would be spent. We closed off the meeting by officially handing over our prepared Recommendation report and a WelTec USB stick with the previously agreed electronic versions of the reported SaaS research and Xero CSV macro prototypes with user documentation.

The team and the client thanked each other and we were asked about our experience and how we felt the project had gone, we all gave positive feedback; it was a nice way to complete the process.

With this milestone achieved we all felt relieved of some pressure but quickly moved on to start preparing ourselves for academic hand in.

As the project is coming to close we are all working together to produce a team report which will reflect our work through the life of this project. As a team we discussed and decided that we are all take couple of phases each to write about what exactly happened at this time.

Apart from this we are also working hard to produce our individual reports focusing on how “I” started this project, how “I” progressed through, how “I” finished, what sort of problems “I” faced and how I solved those problems.

# Statistical analysis of hours worked

This project did not supply enough work to require the full 32 hours per week recommended, the total hours worked (1272.06 hours) was 71.94 hours short of the recommended 1344 hours, **5 % down on planned time.**

# Milestone Summary

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Proposed Milestone** | **Proposed Date** | **Actual Milestone** | **Actual Date** | **Change Control Applied?** |
| Proposal sign-off | 1 Aug 13 | Proposal sign-off | 8 Aug 13 | **\***No |
| Component Test Report (1st Iteration) including  Iteration completion and risk acceptance sign-off | 19 Aug 13 | Presentation of three possible SaaS options with test results | 20 Aug 13 | Yes #4 |
| - | - | Analysis Documentation (Academic requirement) | 29 Aug 13 | Yes #3 |
| Component Test Report (2st Iteration) including  Iteration completion and risk acceptance sign-off | 4 Sep 13 | Test Evaluation Progress Reports and Presentations | 30 Aug 13 | Yes #5 |
| Proposed Integrated system recommendation | 23 Sep 13 | Web Solution Walk through and Demo Presentation | 9 Sep 13 | Yes #6 |
| Proposed Integrated system report and signoff | 8 Oct 13 | CSV Integration Prototype Demonstration | 8 Oct 13 (Signed on the 15th) | Yes #8 |
| System Documentation Handover | 24 Oct 13 | Project Completion and Handover | 15 Oct 13 | Yes  #9 |
| Final System Sign Off | 24 Oct 13 | - | - | Yes  #9 |
| - | - | Academic Handover | 22 Oct 13 | Yes  #10 |

**\***Presented to Client on 1st August, minor amendments made and signed on the 8th.

The Project Proposal included milestones taken from the RUP guidelines, it soon became apparent that this was more of a research and reporting project, there would not be a construction phase and to ask for risk acceptance from a student team was not realistic. Change control was applied and the Milestones were redefined as listed in the next section.

# Change Control Summary

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Date** | **Title** | **Description** |
| 1 | 21 Aug 13 | Redefine Use Case 33 | Rework the Use Case description to better meet the Requirements of Copy Express and ensure better testing of web solutions in upcoming iterations. |
| 2 | 21 Aug 13 | Redefine Use Case 34 | Rework the Use Case description to better meet the Requirements of Copy Express and ensure better testing of web solutions in upcoming iterations. |
| 3 | 23 Aug 13 | Add an analysis document milestone | Add the required milestone (Analysis Documentation) to the project Plan and produce the required document for our advisor to sign off. |
| 4 | 23 Aug 13 | Redefine second proposed milestone | Reword the milestone listed in the proposal, from “Component Test Report (1st Iteration) including Iteration completion and risk acceptance sign-off”, to “Presentation of three possible SaaS options with test results”. |
| 5 | 29 Aug 13 | Redefine the third milestone of the proposal, (now to be the 4th) | Reword the milestone listed in the proposal, from “Component Test Report (2st Iteration) including Iteration completion and risk acceptance sign-off”, to “Test Evaluation Progress Reports and Presentations”. |
| 6 | 02 Sep 13 | Iteration redefinition | Rename the current iteration of the project plan from Construction Phase Iteration 1 to Elaboration phase Iteration 3 and add a *Web Solution Walk through Demo Presentation* milestone to the end of the iteration. |
| 7 | 12 Sep 13 | Iteration redefinition | Rename the current iteration of the project plan from Construction Phase Iteration 1 to Elaboration phase Iteration 4 and add a milestone to the end of the iteration. |
| 8 | 9 Oct 13 | Milestone Redefinition | Delete the Proposed Integrated system recommendation milestone and redefine the Proposed Integrated system report and signoff milestone to CSV Integration Prototype Demonstration. |
| 9 | 9 Oct 13 | Milestone Redefinitions | Delete the *Final System Signoff* milestone and redefine the *System Documentation Handover milestone* to *Project Completion and Handover*, alter the proposed date from 24 October 2013 to 15 October 2013. |
| 10 | 16 Oct 13 | Add Academic Milestone | To formally add an academic handover Milestone to close off the transition phase and signify the completion of the project, as shown on the project plan as “WelTec Document Submission” |

# Summary of successes

**What worked well for us;**

* Drop Box, collaborative file sharing.
* Good requirements analysis.
* Good motivation between team members.
* Complimentary team skills.
* Able to recognise team member’s strengths and weaknesses effectively and allocate work appropriately.
* Milestones sign off.
* Able to recommend potential SaaS solution.
* Two Macro prototypes for uploading invoices into Xero accounting.
* Final Recommendation Report Submission.
* Submission of other SaaS research documents.
* Good research techniques.
* Regular team meetings.
* Good agenda preparation and recording of minutes.
* Good team dynamics.
* Applied change control to ensure milestones were appropriate to scope change,

# Summary of failures

**What didn’t work well for us;**

* Last minute preparation of presentations, not enough joint team preparation.
* Live demonstration didn’t go quite well because of lack of good technical assessment and testing beforehand.
* Test link; time spent to no benefit to the project.
* No signed a Team Contract.
* Very little test planning of the prototypes or the Price testing.
* Time spent researching for a free MIS without any success.
* Time spent researching Business Process Model and Notation with no benefit to the project.
* The project did not progress as first anticipated (no construction stage)
* The research done was duplicated by team members, possibly could have been a two person project.

# Summary of Lessons learned

* Real world learning of Xero, MailChimp, API’s as well as business processes and prioritisation.
* Importance of version and change control.
* How to apply risk analysis and risk mitigation strategies to a project.
* How to apply some Project Management strategies (scheduling, summary reports, record keeping)
* Importance of good research recording.
* Importance of a solid test plan and full understanding of it by all testers.
* The advantages of using a well written agenda with the matters arising from previous meetings listed
* Resolving issues within the team amicably.
* How important team work is, how to balance strengths and weaknesses and make the team work productive.
* How to apply an adaptive agile methodology such as the RUP.

# Conclusion

The Web to Print team were able to work through a process of finding, testing and eliminating many available Software as a Service potential solutions that were specifically designed for the print industry.

Throughout the process the WelTec student team experienced both failures and successes, all of which contributed to a considerable learning experience for each of them, an experience they will never forget.

Although the scope of the project was less than originally anticipated the team were able to recommend the OnPrintShop Web to Print service (Radixweb, 2013) and to provide a small prototype program that can be adapted to the final product to provide automation of the conversion of the downloaded CSV Job details to a suitable template to upload into Xero.

If Copy Express Ltd engage the services of the OnPrintShop SaaS solution they will have taken a step that very few other local printers have, they will have demonstrated innovation that will set them apart from their competitors. By choosing an affordable option with very good storefront features (fully editable templates and online image gallery) they will have mitigated the financial risk for themselves and maximised the customer experience thus greatly increasing likelihood of success.

# Reference List

Rational Software. (1998). RUP Best Practices for Software Development Teams. Cupertino, California, USA.

*editandprint webtoprint with a twist*. (2013). Retrieved October 2013, from editandprint: http://www.editandprint.com.au/

*Your stuff, anywhere*. (2013). Retrieved October 2013, from dropbox.com: www.dropbox.com

Copy Express Ltd. ( 2012 - 2013 ). *Printing Solutions Wellington*. Retrieved October 2013, from Copy Express Ltd: http://www.copyexpress.co.nz

Fotolia. (2004 - 2013). *Royalty Free Stock Photos*. Retrieved October 2013, from fotolia: http://us.fotolia.com/

Hexicom Software Pty Limited. (2013). *eprint software - Welcome*. Retrieved October 2013, from eprint software: http://eprintsoftware.com/

printing.com & w3p Limited. ( 2013). *Online Web to Print | W3P*. Retrieved October 2013, from W3P: http://www.w3p.com/uk/

Radixweb. (2013). *OnPrintShop Web-to-Print Storefront*. Retrieved October 2013, from OnPrintShop.com: http://www.onprintshop.com/

The Rocket Science Group. (2001-2013). *Send Better Email*. Retrieved October 2013, from MailChimp.com: http://mailchimp.com/

Xero. (2013). *Xero - Beautiful accounting software*. Retrieved October 2013, from Xero.com: http://www.xero.com/nz/

ZetaPrints Ltd. (2006-2012). *Web-to-print and dynamic imaging*. Retrieved October 2013, from zetaprints.com: http://www.zetaprints.com/