

The University of Sydney
School of Information Technologies

INFO3402

GROUP ASSIGNMENT 3

Project Proposal

Wydgetz

Wydgetz Implementation & Growth Plan

Tutorial: Tuesday 3PM

Tutor: Christina Kirsch

Team Number: 3

Team members

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1. Introduction

Mr. Darren Bretherson is the CEO of Wydget Labs. Over the past year, Darren has been developing an idea for a service that aggregates all of your digital information into one dashboard. A simplified example of what the dashboard is intended to look like can be seen in Appendix 1. Darren has recently approached some investors and secured one million dollars in seed funding from a range of different investment funds. Off the back of this, Wydget Labs has recently incorporated and hired a team of designers and developers tasked with bringing Wydgetz to market.

The purpose of this project is first to build a minimum viable product (MVP) with the funds that he has secured to help him further validate his idea. After the product has been built, the intention is then to continue to grow the company to a point where it is profitable and then use these funds to continue to develop the product based on the feedback received from users.

1.1. Problem Definition

The following problems facing potential users have been identified:

1. There is a considerably large number of different services that people use every day, it is time consuming and costly to continually have to check these different sources.
2. Different market segments have been identified. At the moment it is unclear how we should best serve these segments and what features should be provided to each one.

1.2. Objectives

The objectives of this project are to:

1. Build an MVP based on requirements gathered from potential users.
2. Begin beta testing with a number of different users from different market segments.
3. Identify how different markets can use the product and how we can leverage this.

1.3. Proposed Methodology

As analysis and validation has already been carried out, the methodology of this project will be heavily focused on product delivery. Based on the reasonably short time frames and limited access to funds, we have decided to implement a Scrum framework for agile software development.

As such, we will follow a methodology where all functionality will be expressed through user stories and be placed in a product backlog. Based on feedback from users and stakeholders, we will then prioritise this backlog and move the highest priority items into the sprint backlog. The items in the sprint backlog will then be divided into individual tasks that will go into each sprint. Each sprint will run for two weeks. Before each sprint we will run a sprint planning session where we estimate how long each task will take and compare this to how much time we have available.

During each sprint we will have a daily standup meeting where everyone provides an update as to what they did yesterday, what they're planning on doing today and if there are any blockers. This can also be used as a time for members of the team to schedule meetings for smaller, task specific issues.

At the end of each sprint, we will have a demo to specific users and stakeholders (i.e. investors) and conduct a sprint retrospective where we discuss how we can learn from the experiences of the previous sprint. This approach should allow us to manage risks and uncertainties using an adaptive and iterative where we can quickly and easily react to unexpected risks.

1.4. *Review of Literature and related work*

At this time, there don't appear to be any other direct competitors that do exactly the same thing as Wydgetz is planned to do. There are a few social media aggregators such as AOLs *LifeStream* and *FriendFeed*, but these only include certain social networks and do not aggregate your entire digital life. A mobile app, *Dashboard* by Panic Inc. has also been identified as a competitor but it does not function as a service online.

1.5. *Assumptions/Constraints*

Our primary constraint is in terms of funding. At the present time, we only have the money that we have raised from investors, being one million dollars. This provides us with a limited runway with which to achieve our goal of profitability.

We have also made a few assumptions about our operating and growth model that were outlined in the Project Charter, these remain the same.

Scope Management

As we are utilising the scrum framework, we will be following the given process for scope management. Each new item that is raised that would change the project scope is added to the project backlog. Every two sprints, a *backlog grooming* session is held where the project manager meets with stakeholders to decide which features should be prioritised and which should be

removed. During this process, the remaining resources are taken into account such that the team only takes on changes in scope that they believe are realistic. See Appendix 2 for a diagram.

1.6. Work Breakdown Structure

The Work Breakdown Structure (WBS) for the project can be found at Appendix 3.

1.7. Change Control Management

As we are using the scrum methodology for this project our approach to change management is through the use of the *product backlog*¹.

There are a few issues and risks with this product backlog strategy, namely that it does not take into account other item types such as training sessions, assisting other teams and time has to be dedicated to grooming the backlog. In an organisation as small as ours, we do not believe these to be an issue and time has been planned for groom the backlog.

In terms of implementation and deployment, every member of the team will have a local development environment. When a feature has been complete and tested, it will be deployed on our production environment which will be managed by the team.

¹ A prioritised feature list containing all the functionality desired in the product.

2. Schedule/Time Management

By having a clear work breakdown structure, we were able to effectively define the scope of the project. Having a clear definition of the scope allowed for us to directly create a project schedule by transferring the tasks from the work breakdown structure explicitly onto an Activity List.

Initially our team inaugurated a baseline schedule so that we could compare it with our current situation as we progressed. The baseline schedule was to be as realistic and accurate as possible. We used an agile development approach and held sprints fortnightly. At each sprint, progress was monitored to ensure that everyone was on path with their jobs and that the actual schedule was not deviating significantly from the proposed schedule. Each member also had access to a real-time updated version of the project's current schedule. When an unexpected deviation occurred, the project manager handled the change appropriately and updated the schedule immediately, which was then available online for the team to access instantaneously.

Essentially, with our effective scheduling our team was able to strictly stick to our proposed plan, while also leaving room for flexibility to add or change any tasks.

2.1. Milestones

The table below lists the milestones for this project, along with their estimated completion timeframe.

Milestones	Estimated Completion Timeframe
<i>Funding approval</i>	-
<i>Set up teams and working environment (start development)</i>	<i>2 weeks after funding approval</i>
<i>Prototype</i>	<i>12 weeks after development begins</i>
<i>Complete our API</i>	<i>16 weeks after development begins</i>
<i>Release Beta version</i>	<i>20 weeks after development begins</i>
<i>Launch final product</i>	<i>24 weeks after development begins</i>

2.2. Project Schedule

A project schedule in the form of a Gantt Chart can be found in *Appendix 4 - Project Schedule*.

2.2.1. Dependencies

A project network diagram outlining the dependencies can be found in *Appendix 5 - Project Network Diagram*.

3. Cost/Budget Management

We have developed a strict, but modest budget structure which will provide us with a solid runway. At the beginning of the project we have received 1 million dollars seed funding which we

will break up monthly according to appendix 7. At \$42,000 per month in expenses, that gives us 23 months runway not including any profit we may make in that time.

\$2000 per month in advertising budget will gain 2000 users a month at a conservative \$1/user. With a 5% subscription rate, every month we will gain 100 paying members per month, with ROI positivity being reached after 4 months of continued subscription.

Once we have launched a product, we plan to be profitable after 15 months, when we will have ~140,000 users, with 7000 paid members, earning \$35,000 revenue in that month.

Expected revenues projection is outlined in appendix 9.

4. Quality Management

Our idea was to build an extremely robust application which works effectively under various different circumstances. By adopting a customer-focused approach, we were highly concerned with making sure our customers will be entirely satisfied. Without being too optimistic, we expect reasonable success with high volumes, therefore it's imperative that our Wydgets system will be of the highest quality. By setting up good communication between a selected groups of users, we were able to get great feedback and constantly upgrade our product until it was fully ready. Below is a brief explanation of our quality policy that was ensured throughout the development.

Our design team were to take very good care with the consistency of the front end user interface. A quality appearance for our dashboard was attained by using a rather simple design that's highly customisable.

It was crucial for our team to eliminate as many bugs as possible. Our developers are highly experienced and proficient coders. We carried out various types of testing including unit testing, integration testing, system testing and user acceptance testing. We also released a beta version in order to get feedback and make sure our product was fully tested and was functioning as expected before being released.

Our team believes that a product of high quality needs to be able to suit people of all different backgrounds. Users have the ability to customize the dashboard by choosing their desired colours and sizes for each Wydget. The application works on various platforms, which allows for further flexibility for our users.

5. Human Resource Management

A copy of our organization chart is attached in appendix 8. Each team member has been given a specific role(s) and tasks clearly defined. Designers will typically work 1-2 sprints ahead of the rest of the team so designs are ready for engineering to complete.

6. Communications Management

Correctly managing communication between members of the team and stakeholders is extremely important. Below is a *communications management matrix* that outlines how the project will communicate with stakeholders. The stakeholders that have been identified for this project are *investors, users* and the *development team*. See Appendix 6 for a Communications Management Matrix.

7. Risk Management

4 major risks specific to our business have been defined in this table.

Risk	Impact	Probability	Mitigation Strategy
Misunderstanding of the task requirements.	High	Medium	We have defined the scope of the project very strongly already. With the addition of fortnightly backlog grooming sessions, we should be able to make sure the project stays on track.
Lack of product uptake.	High	High	There is always the possibility that no users will want to use the platform. By conducting proper user testing, we hope to minimize this risk by building a product that people want.
Changes to the requirements.	Low	High	Using an agile approach will reduce the impact of a change in requirements. The team should be able to quickly adapt to any required changes while future sprints will be updated to accommodate these issues.
Lack of an effective project management methodology.	Medium	Low	Using an agile methodology has proven to work for similar projects in the past. With proper management techniques this should be handled.

REFERENCES

Ambler S. (2012), Disciplined Agile Change Management, <http://www.drdoobs.com/architecture-and-design/disciplined-agile-change-management/240001474>

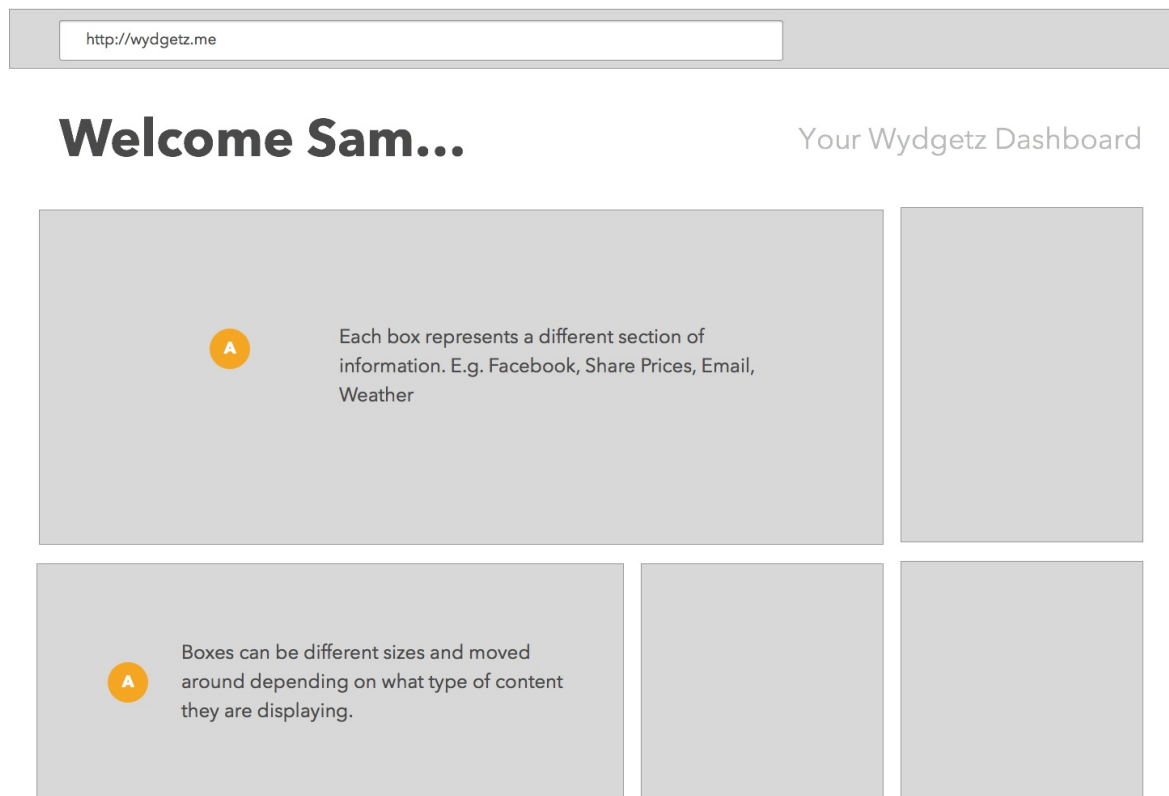
Rasmusson J. (2013), Agile in a nutshell - Burndown Charts, <http://www.agilenutshell.com/burndown>.

Agile Alliance (2013), Guide to Agile Practices - Backlog Grooming, <http://guide.agilealliance.org/guide/backlog-grooming.html>.

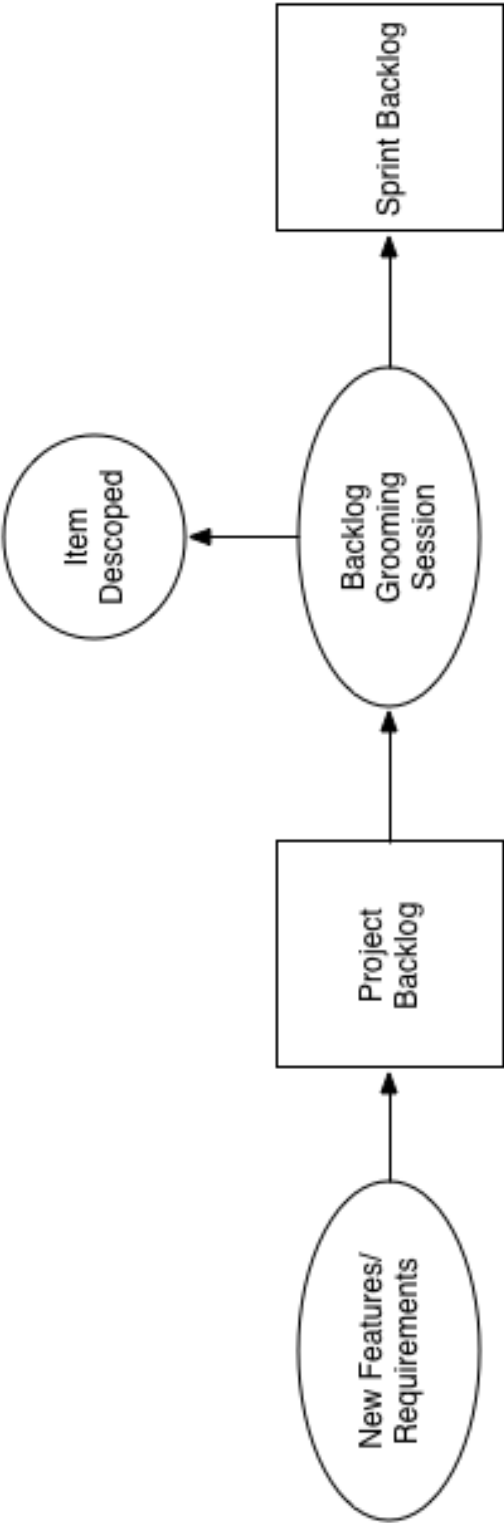
Unknown (2013), Scrum Meetings - Sprint Planning Meeting, <http://scrummethodology.com/scrum-meetings/>.

APPENDICES

Appendix 1 - Proposed UI Wirefram



Appendix 2 - Scope Management Diagram



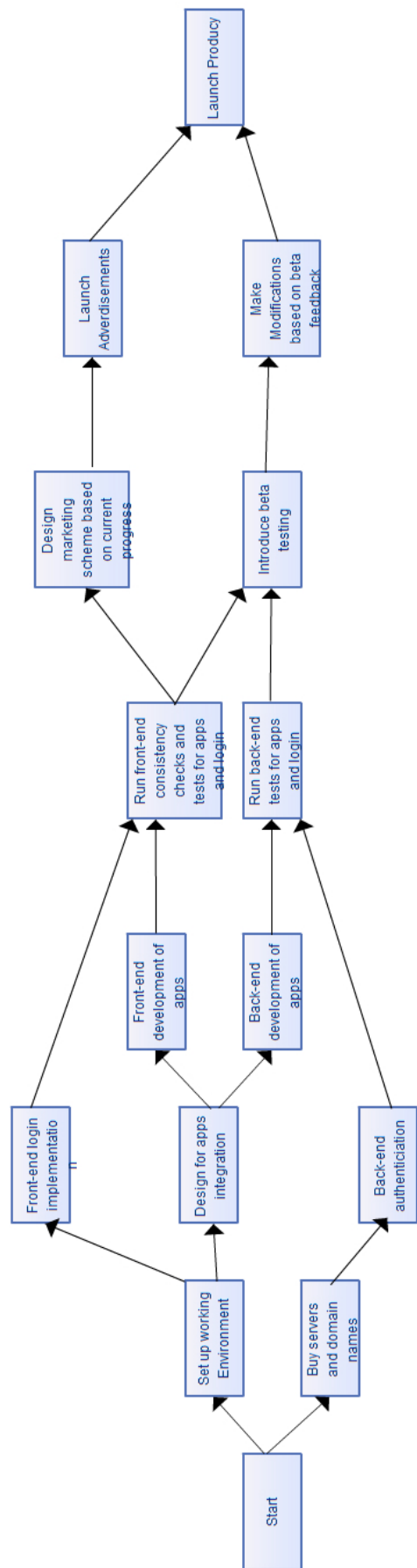
Appendix 3 - Work Breakdown Structure

Please see attached "Work Breakdown Structure.pdf"

Appendix 4 - Project Schedule

Please see attached "Project Schedule.jpeg" or Project Schedule.mpp"

Appendix 5 - Project Network Diagram



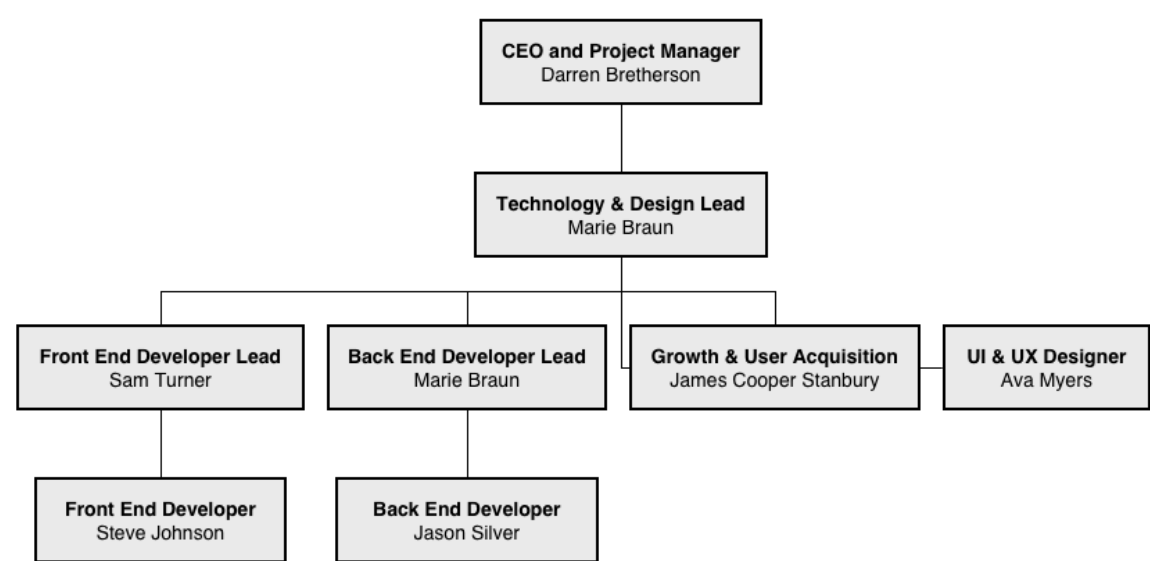
Appendix 6 - Communications Matrix

Stakeholder	Communication Method	Frequency	Notes
Investors	<ul style="list-style-type: none"> • Progress Meetings • Backlog Grooming • Sprint Planning/ Prioritisation 	<ul style="list-style-type: none"> • Monthly progress meetings • Backlog Grooming every two sprints • Sprint planning every two weeks 	<ul style="list-style-type: none"> • Monthly progress meetings will involve all investors • Backlog Grooming will only involve a few close investors • Sprint Planning will only be with one or two investors
Users	<ul style="list-style-type: none"> • Acceptance Testing Meetings • Sprint Planning/ Prioritisation • Email Updates 	<ul style="list-style-type: none"> • Acceptance testing conducted every two weeks • Sprint Planning every two weeks • Email updates regularly as needed 	<ul style="list-style-type: none"> • Acceptance testing and sprint planning will involve only a small group of (probably paid) users • Email updates will go out to all beta testers with new features, changes, etc.
Development Team	<ul style="list-style-type: none"> • Standup Meetings • Burn Down Charts • Status Email 	<ul style="list-style-type: none"> • Standup meetings and status emails conducted daily. • Burn down included in status email 	<ul style="list-style-type: none"> • Burn down and status to be compiled and sent by PM at the end of each day

Appendix 7 - Monthly Cost Breakdown

What	How Much	How Many	Sub Total
Employees	\$6,500	6	\$39,000
Servers/ Infrastructure	\$1,000	1	\$1,000
Marketing/Lead Generation	\$2,000	1	\$2,000

Appendix 8 - Org Chart



Appendix 9 - Revenue Projections

