



**TGM**

# SEARCH FOR THE NEXT TECH GIRL SUPERHERO

## BUSINESS PLAN

### **TEAM NAME**

SjbCoders

### **APP NAME**

Pixel Pal

### **TEAM MEMBERS**

Ines Hrkac, Olivia Wood & Isabella Jessen



[www.techgirlsmovement.org](http://www.techgirlsmovement.org)  
[www.searchforthenexttechgirlsuperhero.org](http://www.searchforthenexttechgirlsuperhero.org)



## Section 1: Product Description

Understanding your product:

It is important to understand your team and why the problem you identify is important to you. Summarise here the key strengths of the team that you identified by completing the Skills Matrix (in Appendix).

Then complete the SWOT Analysis (in the Appendix) by filling in the table, and then summarise here your team's key strengths and weaknesses, and what opportunities your team has to solve the problem you have identified (what difference could you make), and what threats could stop you from realising those opportunities. In short, tell us what you are good at, what you are not so good at, where you would like to take your app, and what could go wrong.

S	W	O	• T
<ul style="list-style-type: none"> <li>• What our strengths are as a team, what do we do well? What are we really good at?</li> </ul>	<ul style="list-style-type: none"> <li>• What are our weaknesses we have within our team, so what skills do we need to recruit for to team, or ask outside help for?</li> </ul>	<ul style="list-style-type: none"> <li>• What are the opportunities for our team, so what would we like the design outcome of our app to be of our solution. Do we want to help with poverty, do we want to help save the environment, do we want to encourage children to read? What is our overall purpose? And what are the opportunities in order to get there?</li> </ul>	<ul style="list-style-type: none"> <li>• What are the threats - the things that could stop us from achieving that opportunity? For instance, what happens if team members get sick, what happens if team members go on holidays and are not available? What happens we don't get the technology to develop the app working? These are some of the things to consider at this point.</li> </ul>
<ul style="list-style-type: none"> <li>• Teamwork</li> <li>• Communication</li> <li>• Friendship</li> <li>• Coding knowledge</li> </ul>	<ul style="list-style-type: none"> <li>• Time management</li> <li>• Getting together out of school time</li> </ul>	<ul style="list-style-type: none"> <li>• More coding knowledge</li> <li>• A good way to prepare for our futures as we</li> </ul>	<ul style="list-style-type: none"> <li>• Team members being sick</li> <li>• Not enough time</li> </ul>



<ul style="list-style-type: none"> <li>• Problem solving skills</li> </ul>	<ul style="list-style-type: none"> <li>• Keeping on track</li> <li>• Staying focused</li> <li>• Being organised</li> </ul>	<ul style="list-style-type: none"> <li>• have business knowledge</li> <li>•</li> <li>•</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• School/Classes /Homework</li> <li>• Members going on holidays</li> <li>• Glitches in the program</li> </ul>
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### 100-word description:

What is the product/service your app provides? What does it do? Who is it for? What is the unique value that your app provides?

Our app is a virtual pet game which helps calm the body and mind. Pets have been shown to lower blood pressure, and assist people who have anxiety or depression. This app is aimed at primary school children that struggle with anxiety, stress, or children that tend to break down easily. There are other virtual pet apps in the Android app store, however, our market resource has shown an opportunity to develop an app focused on calming its users. Our app is unique in this respect as it provides a therapeutic effect in addition to providing easy access to pets.

## Section 2: Potential Market & Research

In this section include an assessment of the market, research on competitors, and who may use your solution. Be sure your proposed solution does not duplicate an existing product offering. Your solution may be similar to something that exists, but it must have some differentiating feature.

### Competitor Analysis:

How have other people have tried to solve the problem that you are trying to solve?

This is where we identify any competitors you have. Compare your competitors in a competitor analysis table and summarise your findings under the table (similarities and differences between the competitors. Identify the gaps your App could fulfill).

<u>Features/Competitor</u>	<u>Our game</u>	<u>Talking Tom</u>	<u>Pakka Pets Village</u>	<u>Moy 5</u>	<u>Animal Crossing</u>
<b>Modify Pet</b>	Yes	Yes	Yes	Yes	Yes
<b>Sounds</b>	Yes	Yes	Yes	Yes	Yes
<b>Animals (dif)</b>	Dog, Guinea Pigs, Cats and Rabbits/ bunnies	Cat only	Lots of different creatures (they're kind of like pokemons).	Baby blobby thingy	Most animals eg. cat, lion, giraffe etc...



<b>Realistic</b>	Pixel/Cartoon	Cartoon	Pixel/Cartoon	Cartoon	Cartoon
<b>Tracking features with web app</b>	PC	PC	No	PC	No
<b>Interaction</b>	Not in initial version	Share videos	No	Connect with your friends (4 player)	Connect with your friends (4 player)
<b>Stress relief</b>	Yes	No	No	No	No
<b>Amount of pets you can have at a time</b>	One animal (we will release save slots in a later version)	1	As many as you want in your village	1	4
<b>Save Slots</b>	1 (we will release save slots in a later version)	1	1	1	1
<b>In-App Purchases</b>	No (later version)	Yes	Yes	Yes	No

### Trend Research:

Identify any key trends related to the problem you are trying to solve, e.g. problem = low levels of school children literacy, trend research = currently only 60% of school children pass the NAPLAN test for literacy. Be sure to cite the source of the evidence.

Therapeutic Pets	Kids Health	Stress/Anxiety	Stress Relieving stuff
<p><a href="#">Link: Dogs:</a> A psychiatric service dog may help someone with anxiety by: bringing medication, or water to help swallow medication, providing tactile stimulation, such as licking your face, to help disrupt an emotional overload, providing pressure against your chest or abdomen to create a calming effect during moments of distress.</p> <p><a href="#">2Link: Dogs:</a> A therapy dog is a canine that</p>	<p><a href="#">Link:</a> Fourteen per cent of Australian children and adolescents aged 4-17 have mental health or behavioural problems. Younger children (4-12) were more likely to visit paediatricians and family doctors, while older children were more likely to visit school-based counselling services.</p> <p><a href="#">Link2:</a> It affects children by preventing them from doing many things including making friends,</p>	<p><a href="#">Link: Green</a> The accumulated stresses of everyday life can damage your health in irreversible ways from early aging to heart problems to long-term disability. new research reveals just how little stress is actually required for you to lose your cool. Some people are more prone to certain diseases, and chronic stress can give these conditions the green</p>	<p><a href="#">Link: Laughing</a> A good belly laugh doesn't just lighten the load mentally. It lowers cortisol, your body's stress hormone, and boosts brain chemicals called endorphins, which help your mood. Lighten up by tuning in to your favorite sitcom or video, reading the comics, or chatting with someone who makes you smile.</p> <p><a href="#">Link: Music</a> The soothing power of music is</p>



<p>might be trained to provide affection and comfort to people in hospitals, retirement homes, nursing homes, schools, hospices, disaster areas, and to people with autism.</p> <p><u>Link: Fish:</u> Even Watching a tank full of tropical fish may lower blood pressure, at least temporarily.</p> <p>In study people undergoing an oral surgery spent a few minutes watching tropical fish in a aquarium. Their relaxation level was measured by their blood pressure, muscle tension, and behavior. It was found that the subjects who did watch the fish were more relaxed than those who did not watch the fish prior to surgery. People who watched the fish were as calm as another group that had been hypnotized before surgery.</p> <p><u>Link: Cats:</u> "The healing power of felines has helped my daughter through bouts of worry and intense sadness" -- Angie Bailey</p> <p>Cats are great for therapy as they give love and that is one of the main things that This is a subject that's close to my heart because both my daughter and I live with anxiety, and my daughter suffers from mild depression as well. Our cats have been the best possible therapy for both of us, but especially for my daughter. I've seen</p>	<p>participating in class and saying "yes" to things. They usually have a low self esteem and don't believe in themselves. They have to be careful what games they play, movies/videos they watch ETC... as those could trigger an anxiety attack.</p> <p>Kinds of anxiety:</p> <ol style="list-style-type: none"> <li>1.Generalized Anxiety Disorder, This is where you worry about unrealistic things and are very self conscious</li> <li>2.Phobias, This is where you are really, really scared of a certain thing. This restricts your life and stops you from being able to do many things.</li> <li>3.Panic Disorder, This is where you get repeated panic attacks which are sometimes over the smallest things. You avoid many things in fear you will get a panic attack</li> <li>4.Obsessive-Compulsive Disorder (OCD), This is when you can't stop repeating an action sometimes in fear you didn't do it right. You might repeatedly wash your hands or arrange something</li> <li>5.Post Traumatic Stress Disorder, This is where you have experienced some kind of abuse or disaster in past. Memories from the event keep playing in your head and you get really scared over the smallest things.</li> </ol>	<p>light: cancer, lung disease, fatal accidents, suicide, and cirrhosis of the liver.</p> <p>Some people respond to stressful situations through nervous tics or by grinding their teeth, while people often grind their teeth unconsciously or when they sleep, it can do lasting damage to your jaw and wear your teeth thin.</p> <p>Stress damages your heart because stress hormones increase your heart rate and constrict your blood vessels. This forces your heart to work harder, and increases your blood pressure.</p> <p><u>Link: Crimson</u></p> <p>Over 2 million people in Australia have anxiety.</p> <p><u>2Link:Crimson</u></p> <p>Anxiety is the most common mental health condition in Australia. On average, one in four people one in three women and one in five men will experience anxiety at some stage in their life. In a 12-month period, over two million Australians experience anxiety.</p> <p>Anxiety is common, but the sooner people with anxiety get help, the more likely they are to recover.</p> <p><u>Link: Purple</u></p> <p>Some of us don't often think about kids having depression or anxiety. Harold S. Koplewicz, MD, founder and director of the New York University Child Study Center and director of adolescent and child psychiatry at</p>	<p>well-established. It has a unique link to our emotions, so can be an extremely effective stress management tool: <b>especially</b> slow, quiet classical music.</p> <p>When people are very stressed, there is a tendency to avoid actively listening to music, perhaps it feels like a waste of time, not helping to achieve anything.</p> <p>It has a unique link to our emotions, so can be an extremely effective stress management tool.</p> <p><u>Link: Pets</u></p> <p>The Therapeutic use of as companions has gained increasing attention in recent years for a wide variety of patients, people with AIDS or cancer, the elderly, and the mentally ill.</p> <p>Animals provide a constant source of comfort and focus for attention.</p> <p>Animals bring out our nurturing instinct. They also make us feel safe and unconditionally accepted. We can just be ourselves around our pets.</p> <p>It is surprising that it does not matter what the pet is to get the therapeutic benefit. It could be a dog, cat, parakeet, a goldfish or anything else. <b>The only thing that matters is that the animal is of interest to you.</b></p> <p>Pets such as dogs and cats provide unconditional,</p>
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<p>firsthand how the healing power of felines has helped her through bouts of worry and intense sadness, and I couldn't be a bigger advocate for bringing them into a child's official or unofficial therapy regimen.</p> <p>If you don't already have a cat or your current cat isn't very social and you're considering adopting another one for the purposes of therapy, it's important to make sure the cat has the right sort of personality for such an intention. Look for a social cat who has a calm demeanor and doesn't mind being handled.</p> <p><u>Link: Guinea Pigs:</u> She says the specially trained rodent is a vital member of her classroom that encourages students, some of whom have autism, to open up about their problems. Most of the time, Oreo simply sits quietly and lets students pet him. Anything that was going on that was too much, like an upcoming tests, like midterms ... Oreo is here to help you</p> <p><u>Link: Rabbits:</u> Some individuals are frightened of dogs and find rabbits to be less intimidating.</p> <p><b><u>Merely watching an animal can calm humans and lower their blood pressure, and stroking their fur is even more therapeutic.</u></b></p> <p>Many rabbits are small enough to be "lap size" therapy pets compared to large therapy dogs.</p>	<p><u>1. Play with pets</u> <b><u>Pets are usually excited and playing or just being around them can usually calm you down but you can also calm down from looking at a fish tank and watching the fish swim around gracefully.</u></b></p> <p>2. Listen to music</p> <p>Listening to upbeat and happy music can get you either in a dancey mood or at least give you a smile on your face,</p> <p>Listening to the rain or the waves. Music has a unique link to our emotions, so can be an extremely effective stress management tool.</p>	<p>NYU/Bellevue Hospital Center, is one of the experts who says anxiety is the underlying issue of depression in younger children.</p> <p>According to the Academy of Anxiety and Depression of America, anxiety disorders affect one in eight children.</p>	<p>nonjudgmental love and affection. And pets can shift our narrow beyond ourselves, helping us to feel connected to a larger world.</p> <p><u>2Link: Pets</u></p> <p>Multiple studies show that a pet can help reduce stress and even lower blood pressure. For those who live with depression or anxiety, pets can truly be an integral part of getting through the day and overcoming challenges. This is true for both adults and children.</p>
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<p>Rabbits offer the advantage of being the least threatening in temperament and the most gentle.</p> <p><u>Link: Birds:</u> "Hush," the two women tell the chattering cages of birds, and the room is silent. Horton tells of non-responsive patients in wheelchairs who suddenly begin speaking again while petting a cockatiel as their relatives weep at the transformation. She describes how a group of young but violent criminals clamored to touch a cockatoo named Bela.</p> <p><u>2Link: Birds:</u> Parrots and some other species of birds are known to be extremely empathetic and tuned into the emotional environment around them. They can sense stress and tension, anger and distress in their owners, before these bubbling feelings break the surface. Some birds are trained to repeat soothing phrases and sounds to talk their owners down.</p>			
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**Consumer research:**

Discuss how you collected information from people, and what you learnt from your survey/interviews of potential users of your App.

[Link to our survey responses](#)

We learned that our app will be quite big in the market because 16/21 people said that yes for sure they would play it. Not a lot of people are stress-heads or have anxiety (4/21). Most kids still have trouble with anxiety (20/21). 3/21 kids said playing with pets is what they do to calm down and 10/21 kids said listening to music is what they do to calm down. 10/21 kids





were ok in calming down, 3/21 kids found it easy to calm down and 3/21 kids found it hard to calm down.

### Target Market:

Include what groups have the problems you identified in Section 1, and specifically who your target users are (age, gender, geographic location etc). How big is this group of people (i.e. your market)? Why is there a need for your App? If your App existed, how would it be used? How often?

Our app is targeted at children in primary school who stress an abnormal amount or have anxiety. Its purpose is to help relieve their stress. We believe that no matter where you are you should have something that can help calm you down, which is why our App is open to everybody. Even though anyone can access it we strongly think kids in primary school would benefit from using our app because as you get older the level of stress you have starts to get higher and harder to control and calm down. Our app is going to be played very often based on survey answers, 16/21 said yes for sure they would play our app.

### Potential Market Size:

How big is the potential market e.g. number of potential users of your App? Where are they located? How often will they use your app? In what situations will they use it?

Apple is the most popular brand but it's not the biggest platform "50.1 per cent of all phones sold in Australia in the middle three months of 2016 ran the Android operating system, just beating out Apple's iOS" -- ([link](#)) In our survey 16/21 people said that yes for sure they would play it, we believe that means our game will be very big/popular.

Who has the need for my products or services, the financial ability to purchase my products, and the ability to find my products? How many of these people or businesses exist today? How much money does each person or business currently spend every year solving the problem that my product or service also solves? Who else do I share this market with? Do some rough calculations here to determine your potential market size.

## Section 3: Finances

### Budget:

What costs are associated with building your app? Calculate your time building the solution at a reasonable hourly fee. Include any costs to distribute and market your app.

What are the important costs in your business?



- **Fixed costs:** Costs that remain the same despite the volume of goods or services produced. Examples include salaries, rents, and physical manufacturing facilities. Some businesses, such as manufacturing companies, are characterized by a high proportion of fixed costs.
- **Variable costs:** Costs that vary proportionally with the volume of goods or services produced. Some businesses, such as music festivals, are characterized by a high proportion of variable costs.

**Charge a once off charge due to to ¼ apps are only opened once.**

**We need to charge to cover costs but then won't be making money.**

Revenue Model:

### **Business Model**

Choose a viable business model and explain the reason for selecting it. For example: free, freemium, subscription, or paid, in-app purchases. If you choose a type of paid option, how much will you charge?

Our app will be free, no charge of anything as we want it to be accessible to everyone.

Mashable put together a good guide on your options for generating revenue from your app.

- **Freemium or Lite:** Offering both a free version of your app and a higher-priced version that is more advanced.
- **In-App Purchases:** very popular in games, offering features that users can buy within the app
- **Advertising:** selling ad space to other companies within your app. Generates ongoing revenue (in contrast to only getting paid once for a download of the app).

See full article here:

[http://mashable.com/2011/08/17/price-mobile-app/#rqgqMkma\\_sqN](http://mashable.com/2011/08/17/price-mobile-app/#rqgqMkma_sqN)

### **Pricing your Product**

Check out this guide from Sequoia Capital on how to price your product, how to increase the size of the market your product addresses and more. There's an additional PDF worksheet linked at the bottom of the guide as well!

<https://www.sequoiacap.com/article/pricing-your-product/>

Also check out Mashable's guide to What to Charge in that earlier article as well:

[http://mashable.com/2011/08/17/price-mobile-app/#rqgqMkma\\_sqN](http://mashable.com/2011/08/17/price-mobile-app/#rqgqMkma_sqN)

Things to consider (via Mashable):

- What are competitors charging?



- You can experiment with app prices over time (dropping them to grow your user base, or increasing them to test your market)
- How much will the app store take as a commission?

### Calculating Potential Revenue

- How much does your product or service cost?

We calculated that if one hour cost us \$15 each it cost us \$7,110 to make this app (in total not separately)

- Based on the market size you already calculated, how much money will your app make in the first year?

## Section 4: Marketing

### Branding & Promotion

#### Write your strategy for promoting your app here.

- Messaging – How will you describe the app to consumers?

Our app is a virtual pet game which helps calm the body and mind. Pets have been shown to lower blood pressure, and assist people who have anxiety or depression. This app is aimed at primary school children that struggle with anxiety, stress, or children that tend to break down easily. There are other virtual pet apps in the Android app store, however, our market resource has shown an opportunity to develop an app focused on calming its users. Our app is unique in this respect as it provides a therapeutic effect in addition to providing easy access to pets.

- Channels – What methods will you use to get the message to consumers?  
Website and Instagram
- List the actions you will take to launch your product or service.  
Advertise then launch
- How will you bring the product or service to the market?  
Google Play Store
- How do you plan to grow the number of users over time?  
Continually advertise it and add in new features

### Platforms

What platform will you build your App prototype for? Apple? Android? Note: AppInventor works with Android.

- Android as we are using AppInventor

How will you make your App available to download? Via the Google Play store like Vocabulary Voyagers?



([https://play.google.com/store/apps/details?id=appinventor.ai\\_creatingappsteam1.Prototype&hl=en](https://play.google.com/store/apps/details?id=appinventor.ai_creatingappsteam1.Prototype&hl=en))

Google Play Store

## Launch

How will you launch your app? What will your campaign look like? How will you promote your app e.g. social media, blogs, email, websites, partners.

We have a [website](#) & [Instagram](#).

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## Growth/Future:

What are the next steps for your App? How will you add functionality, or improve it in the future? What is your longer term strategy?

More animals, realistic features, more music, modifying pet and saving pet.

## **SUBMISSION GUIDELINES & JUDGING RUBRIC**

Please read the submission guidelines and judging rubric carefully before starting your project.

You must upload ALL DELIVERABLES for your division to be eligible for judging. Submit whatever you have for each deliverable by July 28, 2017, 5:00 pm AEST, even if it isn't perfect. We cannot judge incomplete submissions, so don't leave any deliverable out of your submission.



## APPENDIX

### SKILLS MATRIX

Role names	Project Management	Research skills	Design	Document business plan	Pitch & demo presentation	Marketing & branding	Budgets & finance	AppInventor and coding
Isabella Jessen	2	3	2	2	3	1	0	2
Olivia Wood	1	3	2	2	3	1	1	2
Ines Hrkac	1	3	2	2	2	1	3	3
Teacher - Julia	4	4	2	4	3	3	2	2
Mentor - Sara								

### SCORING

- 0 - Need not have knowledge
- 1 - Should have basic knowledge
- 2 - Should do with support
- 3 - Should have knowledge & do independently
- 4 - Should be good in theory and practical and can train others

### SWOT ANALYSIS

<p><b>STRENGTHS</b></p> <p>What are your strengths?</p> <p>What do you do better than your competitors?</p> <p>What unique capabilities and resources do you possess?</p> <p>What do others perceive as your strengths?</p>	<p><b>WEAKNESSES</b></p> <p>What are your weaknesses? What could you do better?</p> <p>What do your competitors do better than you?</p> <p>What can you improve on?</p> <p>What do others perceive as your weaknesses.</p>
<p><b>OPPORTUNITIES</b></p> <p>What trends or conditions may positively impact you?</p> <p>?</p> <p>What opportunities are available to you?</p> <p>How can you turn your weaknesses into opportunities?</p>	<p><b>THREATS</b></p> <p>What trends or conditions may negatively impact you?</p> <p>What are competitors doing that may impact you?</p> <p>Do you have solid financial support?</p> <p>What impact do the weaknesses have on the threats to you?</p>

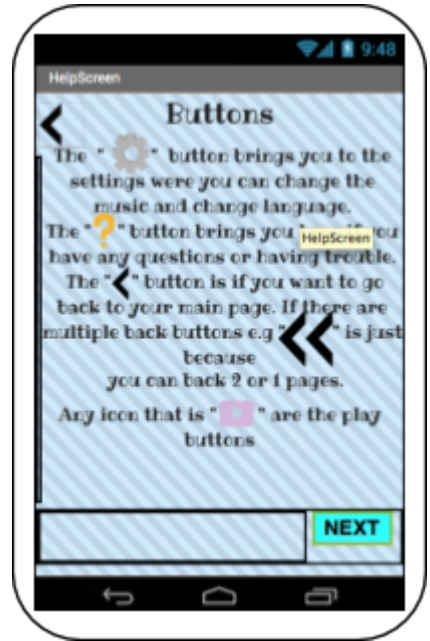


NOTE: Aim for 5 points for each.

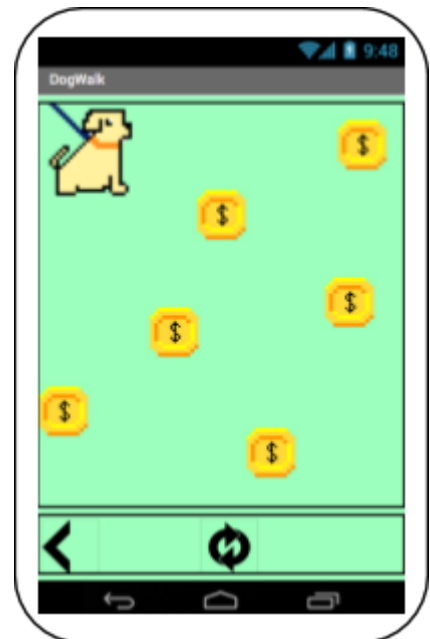


## WIREFRAME YOUR APP

Draw out each of your screens here or use index cards. Think about how your screens



will interact with each other, and draw arrows to indicate the flow of your app.





## PROJECT PLANNING

Create a plan for how you will complete your prototype. Figure out what basic features or components your app will need (text-to-speech, accelerometer, lists, etc.) and then research videos or tutorials that will teach you how to implement those features. Finally, make a plan for when you will work on each component.

<b>Feature</b>	<b>Resources to learn how to use</b>	<b>Timeframe</b>	<b>Priority</b>
Playing music in loops and over multiple screens. Playing different sounds.	Player		8/10
Changing animals costumes	Buttons/images		10/10
Walking animal	move.to		10/10
Petting animal	Buttons		10/10
Pet noises	Player		8/10
Shaking to roll animal over	Accelerometer		8/10





## USER TESTING: COLLECTING FEEDBACK ON YOUR PROTOTYPE

Ask potential users about your prototype. Take notes on the feedback you receive here. Answer the Usability Testing questions and add some of your own before you begin if needed. Consider asking your peers (or mentor) to complete the table below as well.

Questions	Notes	Changes that need to be made by the team
Is there anything that is unclear or confusing in the user-interface?	Rose - No Josh - No, nothing	
Would you prefer the app look or behave differently?	Rose - No, it's cool how you can collect the coins Josh - Yes, it would be better if you could buy things with the coins for your pet.	In later versions add a store where you can buy goods for your pets
Which features of the app interface and usability are of highest value?	Rose - Choosing an animal, music Josh - The music	
Are there any missing buttons or other content from the app?	Josh - No	
Did your expectations differ from the intent of the app?	Josh - Expected you could buy things.	In later versions add a store where you can buy goods for your pets



## Glossary

**Cost Structure:** What are the important costs in your business?

**Distribution Channels:** How are you reaching your customers? Which method works best? Which are the most cost-efficient?

**Fixed costs:** Costs that remain the same despite the volume of goods or services produced. Examples include salaries, rents, and physical manufacturing facilities. Some businesses, such as manufacturing companies, are characterized by a high proportion of fixed costs.

**Market Research:** Figuring out what your market wants. What problem is your customer interested in solving and does your product/service solve this problem in the customer's eyes?

**Market Size:** Who are all the people and organizations for which you are creating value? There must be enough people who would buy your product/service to make a profit.

**Profit:** The extra money that you have made, subtracting any costs incurred, at the end of the day. Profit = Revenue – Cost.

**Revenue Streams:** How will you make money and from whom? Paid apps? In-app purchases?

**User-Centered Design:** Designing with the user in mind (*You* are not necessarily the user!)

**User Interface:** Way of interacting between person and product, especially in software.

**User Interface Design:** Designing things that will make sense for the end user, by thinking about how the user will interface with the product.

**Value Propositions:** What value do we deliver to the customer? Low Price/ Accessibility/Convenience?

**Variable costs:** Costs that vary proportionally with the volume of goods or services produced. Some businesses, such as music festivals, are characterized by a high proportion of variable costs.